
Serantau Integrasi
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KOMUNITAS ASIA
สะมาคมอาชี
Komunidad ng Asyano
CỘNG ĐỒNG CHÂU Á
HỘI NHẬP KHU VỰC
Regional Integration
Masyarakat Asia
Pag-uugnayang Panrehiyon
Asian Community
INTEGRASI REGIONAL
การรวมตัวทางภูมิภาค
ประชาคมเอเชีย
地域一体化
区域一体化

Chapter 3
Integrating production

Asia's economies are becoming ever more closely intertwined, particularly through trade and investment. As they expand and prosper, they are buying more of each other's products. And as production chains are increasingly split into small steps, with each assigned to the most cost-efficient location across the region, Asia's economies are also tied together by a dense network of parts and components trade. This "fragmentation" of production—sometimes organized through a network of small, independent firms but more often by a big multinational corporation (MNC) that uses the region as a production base—is driven largely by technological change. But it is also made possible by the low trade barriers, excellent transport links, and other connections that make it cheap, quick, and easy to ship goods across Asia. These new production networks make the most of each Asian economy's advantages to boost productivity and cut costs, while also bolstering investment and fostering the transfer of technology. In effect, thanks to its openness and connectedness, Asia's diversity is its strength, and its integration is a vital new comparative advantage in the global economy.

The regional hub of these global production networks is increasingly the PRC, whose spectacular rise has given further impetus to Asian integration.[16] As smaller Asian economies have been displaced by the PRC from some of their traditional export markets, they have found new niches, often as links in global supply chains through the PRC. They have therefore sought closer trading ties with the PRC, as well as with each other. By forming a larger and more diverse integrated market that spans several economies in a

[16] ADB (2007a) also noted that the PRC has benefited significantly from these trade patterns—its successful participation in international production networks has enhanced its technological capabilities.

region or subregion, smaller Asian economies can become a more attractive location for investment in production facilities and can reap greater gains from specialization, economies of scale, and increased competition. Thus, while the PRC's rise has unsettled the region, it has also helped to draw it closer together.

Until recently, Asia's integration was driven mostly by market processes. No major preferential trade agreements—apart from the then-incomplete ASEAN Free Trade Area (AFTA)—were in force. But since 2000, bilateral and plurilateral accords have proliferated, with many more in the pipeline. The many reasons for this—global and regional, good and bad—will be discussed in Section 3.3. But such arrangements suggest an increased interest in regional trade and investment cooperation and could weave Asia's economies together into a closely integrated regional market that is a more attractive platform for MNCs' global production networks.

But while free trade agreements (FTAs) may have advantages, they also potentially have serious drawbacks. Some claim that they are largely a distraction, pointing out that use of their preferential terms by trading firms seems remarkably low. Others argue that they divert trade and stifle it with red tape, rather than freeing it. In order to maximize the gains from FTAs and to minimize their costs, Asian governments need to think ahead and adopt best practices. While pushing forward with deeper integration where possible, they should also seek to stitch together the increasingly tangled web of preferential agreements into a comprehensive and outward-looking regional framework. Their aim should be free trade throughout Asia—a single Asian market, seamlessly connected to the global economy.

This chapter is organized into five sections. Section 3.1 provides an overview of increasing interdependence in the region and the forces driving it. Section 3.2 analyzes policies, particularly measures to promote a favorable business climate and trade rules that support economies' regional integration. Section 3.3 evaluates current trends in economic cooperation in Asia. Section 3.4 proposes regional strategies and solutions. Section 3.5 concludes.

3.1. Production networks and regional trade

Nearly all Asian economies have internationalized in recent years—dramatically so in Viet Nam, where total trade (exports plus imports) has soared from 24% of GDP in 1985 to 142% in 2006. In the PRC,

trade has risen from 42% of GDP to 66% during the same period, while in India it has doubled from 17% of GDP to 34%. These are very large increases, especially given the size of the two economies. Liberalization, particularly of trade, is driving this trend—and, as noted in Chapter 2, trade openness and globalization in Asia have been historically correlated with higher living standards. As transition economies, in particular, have opened up to international trade in recent decades, living standards, as measured by GDP per capita, have soared—not just in the PRC, but also in Cambodia and Viet Nam. India has also notched up impressive gains.[17]

Asian economies are at various stages of a far-reaching structural transformation from agriculture to manufacturing and, eventually, services. More than 90% of East Asia's exports are now manufactured goods (mostly electronics), and their technological content is increasingly sophisticated. Some Asian economies such as India, however, already export a considerable amount of outsourced services (Box 3.1).

Asia has developed a global comparative advantage in manufacturing. This is based in part on low wages, but more importantly on high rates of productivity growth. It is driven by the scale of Asia's markets and the ability to combine the benefits of diverse production sites through "fragmented" production and trade. In Japan; the Republic of Korea; Taipei,China; and Singapore productivity has already caught up with the Organisation for Economic Co-operation and Development (OECD) average, while the PRC, India, and several ASEAN members—notably Malaysia and Thailand—are closing the gap quickly. While Indonesia and the Philippines have made less progress (ADB 2007a, 272),[18] recent trends are encouraging. These countries differ somewhat from the typical East Asian model because of their large primary resources, and (in the case of the Philippines) the early development of service sector exports.

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[17] Using gross domestic product (GDP) data at constant 2000 prices, between 1997 and 2007, per capita GDP increased by 128% in the PRC, 102% in Cambodia, 77% in Viet Nam, and 69% in India.

[18] The *Asian Development Outlook* distinguishes between relative and absolute productivity gaps. In Malaysia, for instance, productivity rose from 16% of the Organisation of Economic Co-operation and Development (OECD) average in 1980–1985 to 21% in 2000–2004, while the absolute productivity gap rose. The *Asian Development Outlook* calculates that if relative trends are sustained, the absolute gap between Malaysia and the OECD average should start to narrow when its productivity reaches one third of the OECD's.

Box 3.1. India's emergence as an exporter of outsourced services

In the past decade, Asian economies such as the People's Republic of China, India, the Philippines, and Thailand have become increasingly important exporters of services outsourced by foreign companies. Such services include the design of information technology programs and applications, call center and surveying activities, back office administrative work, scientific research operations, processing of radiological and other medical tests, and financial operations related to venture capital and other businesses. Large wage differentials across countries and dramatic developments in information and communication technology have driven the growth of services' outsourcing in Asia, as have market-oriented reforms and trade liberalization (Bhagwati and Panagariya 2004).

With its advanced capacity in information technology and software-related knowledge, large skilled and inexpensive labor force, and strong English language skills, India has become a leader in exports of outsourced services not only in Asia but among developing countries. Other factors behind its success include the maturity of its judicial system, a record of conformance to World Trade Organization (WTO) obligations, and a history of successful private firms with a talent for initiating and managing complex service projects.

Estimates from several sources suggest that India's services outsourcing market has been growing at 25% a year. Although the rupee's recent appreciation against the United States dollar may have reduced India's cost advantage, the outsourcing market is forecasted to nearly quadruple to $60 billion by 2010, from about $17 billion in 2005. By 2010, the outsourced services sector is expected to employ 2.3 million people directly and to support a further 6.5 million jobs indirectly (NASSCOM and McKinsey 2005; Dossani and Kenney 2007).

The sector's growth initially resulted mainly in new jobs and price cuts, since entry barriers were typically low and automation easy. Many firms, however, were soon able to exploit economies of scale, expand their product range, develop brand names, and enter new business areas. Thus, although most exported services remain low value added and relatively low skilled, several Indian firms are now among the top global providers of outsourced services.

More recently, as a new wave of second-generation providers has emerged, the traditional model is facing new challenges. Indian firms are responding to increasing competition by diversifying their range of services and opening offices in other developing countries to reduce costs and meet clients' demand. This, in turn, is allowing newcomers to follow in their footsteps.

The economics of production networks

Asia's vertically integrated production networks operate by separating a production chain into small steps and then assigning each to the most cost-efficient location. This pattern is often described as fragmented production and trade.[19] Some steps take place within a single firm (or firms of the same group) that has operations in different countries,

[19] The theoretical and empirical literature on trade due to fragmented production is growing rapidly. Important recent contributions include Jones and Kierzkowski (2001), Athukorala and Yamashita (2005), Ando (2005 and 2006).

while others involve arms length transactions among different firms in several countries. This is a relatively new aspect of international trade, made possible by a combination of rapid improvements in information and communication technology and more open markets. Such fragmented production has proved a particularly beneficial strategy in Asia, thanks to the large range of development levels across the region, its strong intraregional and international links, and its adeptness at transferring and absorbing new production technologies. By enabling economies to specialize in narrower niches, production networks allow them to enter international markets with a more limited range of skills than previously.[20] They thus facilitate the participation of outward-oriented least developed countries in the regional and global economy.

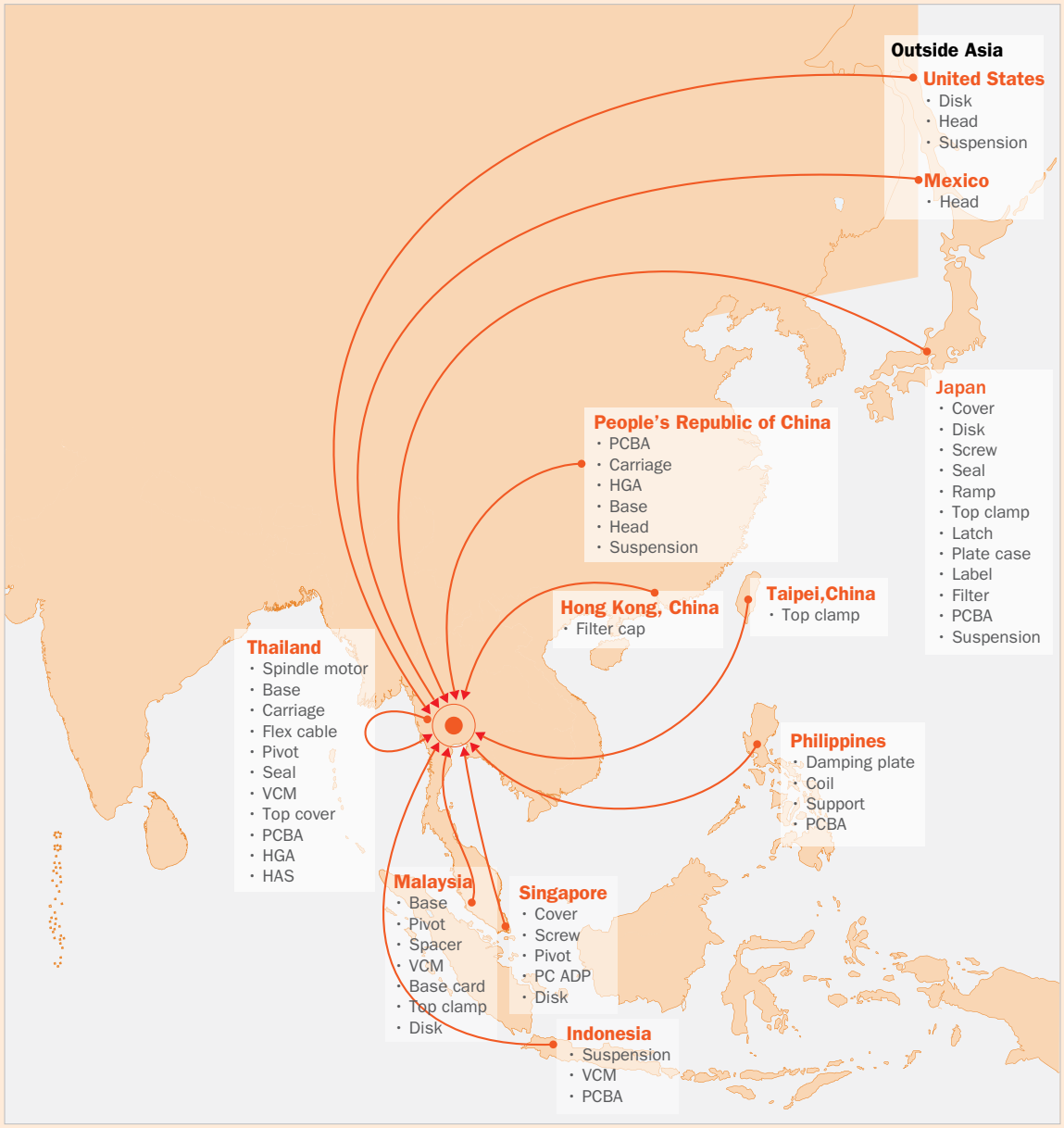
While the region's largest investments in production facilities are now centered on the PRC, complex networks are emerging throughout the region. One striking example—of the links involved in the manufacture of disk drives in Thailand—is shown in Figure 3.1. The network behind this relatively simple product spans nine Asian economies (with many different parts coming from each) as well as Mexico and the US. This is one of many such supply chains focusing on ASEAN economies, a selection of which is set out in Table 3.1. For example, as of February 2007, the ASEAN Industrial Cooperation Scheme, a program created in 1996 while AFTA was being implemented, approved 140 regional supply projects in ASEAN countries alone, centered on MNCs from both Asian and non-Asian countries.[21]

Production networks have greatly boosted Asia's intra-industry trade, particularly in machinery, electrical goods, and electronic parts and components. While economic statistics provide only a limited measure of the incidence of such trade—until recently, trade classification systems were not refined enough to measure such detailed specialization—evidence is mounting that it is transforming the industrial landscape, especially in Asia (Ando 2005, Athukorala 2005). As Figure 3.2 shows, in Integrating Asia, the share of parts and components trade (PCT) in manufacturing trade shot up from 24.3% in 1996 to 29.4% in 2006. That is a remarkable rise, not least since

[20] Extensive literature is available on this topic, but one particularly influential work is Dobson and Chia (1997).

[21] The scheme has successfully promoted production networks, especially for the automobile and electronics industries, by reducing the preferential tariff rate to 0–5%, liberalizing equity restrictions for foreign investors, and offering dispute settlement facilities. Source: ASEAN Secretariat 2007.

Figure 3.1. Networking: sourcing of parts and components for a hard disk drive



Note: The production of hard disk drives requires several parts and components. The example shows the actual sourcing of parts and components of a hard disk drive assembly firm in Thailand. The largest majority of parts and components are sourced from other integrating Asian economies. Hard disk drives are used in several electronic products. The hard disk drive assembler in Thailand exports a large share of its production to electronic firms mostly in other integrating Asian economies.
Source: Adapted from Hiratsuka 2006.

Table 3.1. Regional production networks in ASEAN
Selected multinational corporations, 2006

Multinational corporation	Product/industry	Extent of network
Universal Consumer Products	Detergent	Indonesia, Singapore
PT Indo Sukses Makmur	Detergent	Indonesia, Singapore
Sanden	Automotive	Singapore, Thailand
Denso	Automotive	Indonesia, Malaysia, Philippines, Thailand
Toyota	Automotive	Indonesia, Malaysia, Philippines, Thailand
Honda	Automotive	Indonesia, Malaysia, Philippines, Thailand
Volvo	Automotive	Malaysia, Thailand
Ford	Automotive	Philippines, Thailand
Sony	Electronics	Singapore, Thailand, Viet Nam
Matsushita	Electronics	Indonesia, Malaysia, Philippines, Thailand
Nestlé/Goya	Food processing	Indonesia, Malaysia, Philippines, Thailand
Samsung	Electronics	Malaysia, Viet Nam
Clipsal/Bowden	Electrical	Indonesia, Malaysia
Yanmar	Agriculture machinery	Indonesia, Thailand

ASEAN = Association of Southeast Asian Nations.
Source: ASEAN Secretariat 2007. Available: http://www.asean.org (accessed July 2007).

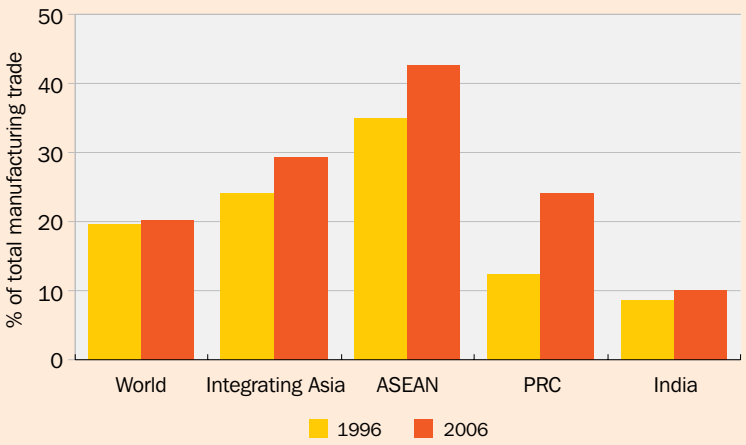
worldwide its share has scarcely increased, edging up from 19.6% to 20.2% over the same period (Figure 3.2a).

As a share of GDP, PCT is among the highest in the world in the ASEAN (especially in Malaysia, the Philippines, Singapore, and Thailand) and in Taipei,China, perhaps because the relatively small size of their economies makes specializing in small niches of comparative advantage particularly important. Broadly speaking, the success of these economies is based on policies that welcome foreign companies, encourage technological upgrading, and build strong connections with world markets, as well as on their proximity to Asian neighbors following similar strategies. PCT is particularly significant among ASEAN countries: it rose from an average of 35% of manufacturing trade in 1996 to 43% in 2006. The PCT share in the PRC nearly doubled over the same period, from 12.5% to 24.0%, while in India it remained at around 10.0%.

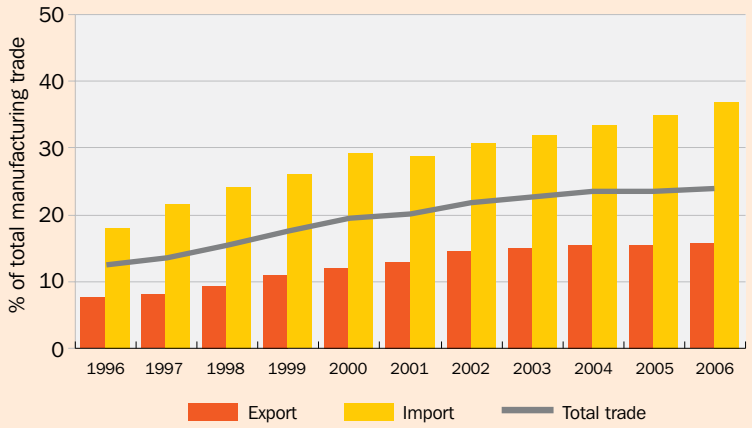
Integrating Asia remains a net importer of parts and components, especially because of its deficit with the EU and US in high-tech intermediate products. The PRC's deficit is particularly large (Figure

Figure 3.2. Share of parts and components trade in total manufacturing trade

a. Asia and world trade, 1996 and 2006



b. People's Republic of China, 1996–2006



ASEAN = Association of Southeast Asian Nations, PRC = People's Republic of China.
Note: Parts and components are calculated from a list of 225 product categories at Standard Trade International Classification five-digit level. The criterion to separate parts and components from final manufacturing products is based on product lists provided by Athukorala 2005.
Source: UN 2008. Comtrade database. Available: http://comtrade.un.org/db/default.aspx (accessed April 2008).

3.2b). In 2006, the PRC's imports of parts and components were 37.0% of its total manufacturing imports, while exports were only 15.5% of the manufacturing total. Final goods account for a correspondingly larger share of its manufacturing exports, highlighting the PRC's role as Asia's assembly factory.

Increased regional integration is also associated with technological upgrading, as the establishment of regional production networks through foreign direct investment (FDI) by MNCs often generates positive technology spillovers for recipient economies such as investment aimed at generating new technologies through research and development, as well as at better absorbing technology transfers (Belderbos, Capannelli, and Fukao 2001).

Productivity and technology

Technology development and economic integration are interconnected. Cross-border flows of capital, goods, and people accelerate the diffusion and development of new technologies, while making it easier for economies to adapt to changing patterns of comparative advantage, ride the product life cycle, and move up the value chain.

Countries upgrade their technology base by adopting existing foreign technologies and inventing new ones. These two channels feed on each other (Cohen and Levinthal 1989). By adopting existing technologies—often through imitation—countries acquire capabilities that can eventually help them to become innovators. But to make the leap from imitator to innovator, countries need to invest in research and development. This, in turn, improves their ability to assimilate existing technologies as well as to create new ones.

The relative importance of these two mechanisms varies depending on a country's stage of economic development. The East Asian experience (following the flying geese model described in Chapter 2) suggests that adapting and imitating existing technologies is the main means of upgrading technology in the early stages. But while imitation is more profitable than innovation when the technology gap with developed countries is wide, the returns from indigenous innovation increase as countries approach the global technology frontier.

While technology development across Asia is generally perceived to be highly uneven, quantifying cross-country differences is a major challenge. As the nature of technology upgrading varies substantially according to the stage of development, it is difficult to summarize the degree of it with any single indicator.

The United Nations Development Programme (UNDP) has formulated a measure of an economy's overall technological development, the Technology Achievement Index (UNDP 2001). This consists of four equally-weighted component measures: (1) technology creation, (2) the diffusion of new technologies, (3) the diffusion of established technologies, and (4) the level of human skills. In constructing the index for Integrating Asian economies, some of the variables used in the original UNDP index were replaced with similar variables due to data constraints. The specific variables used for each component measure of the composite Technology Achievement Index are described as follows:

- **technology creation:** US Patent and Trademark Office patents granted per capita, and receipts of royalties and license fees from abroad per capita;
- **diffusion of new technologies:** Internet users per 1,000 people, and the share of high- and medium-technology products in manufacturing exports;
- **diffusion of established technologies:** telephones per 1,000 people and electricity consumption per capita; and
- **human skills:** adult literacy rate, and researchers engaged in R&D per 1,000 people.

Technology Achivement Index scores and its component indexes are shown in Table 3.2 using 2004 data for 11 integrating Asian economies.[22] The scores are indicative of economies' relative position within the region rather than of absolute differences. Along with Singapore, Northeast Asian economies (Hong Kong, China; Japan; the Republic of Korea; and Taipei,China) stand out as the most technologically developed. Integration with these economies increases the possibility of benefiting from technology spillovers.

The vast differences in technology development across Asia suggest ample opportunities for knowledge diffusion. Hu (2008) traced knowledge diffusion in East Asia using patent citations made by the US Patent and Trademark Office, with patents granted as an indicator of knowledge flow. The study found that while Japan and the US remain the dominant sources of knowledge diffusion for East Asia, knowledge flows from the Republic of Korea and Taipei,China are increasing, reflecting their rising technological sophistication as well as their role in regional economic integration. For example,

[22] Although the table reports the consolidated value for the People's Republic of China (PRC), available data show the presence of pronounced disparities between the more advanced coastal regions and the rest of the country.

Table 3.2. Sources of Asia's technological progress

Rank	Technology achievement index		Component indexes							
			Technology creation		Diffusion of				Human skills	
					New technology		Established technology			
1	JPN	0.888	JPN	0.974	TAP	0.905	TAP	0.987	JPN	1.000
2	TAP	0.816	TAP	0.553	KOR	0.865	SIN	0.916	SIN	0.876
3	SIN	0.743	SIN	0.382	SIN	0.797	JPN	0.887	TAP	0.817
4	KOR	0.697	KOR	0.285	HKG	0.734	KOR	0.864	KOR	0.773
5	HKG	0.598	HKG	0.285	JPN	0.690	HKG	0.811	HKG	0.561
6	MAL	0.339	MAL	0.012	MAL	0.438	MAL	0.525	PRC	0.446
7	THA	0.303	INO	0.004	THA	0.393	THA	0.389	THA	0.428
8	PRC	0.292	THA	0.002	PRC	0.358	PRC	0.361	PHI	0.405
9	PHI	0.238	PRC	0.001	PHI	0.263	PHI	0.283	INO	0.392
10	INO	0.175	PHI	0.001	INO	0.174	INO	0.130	MAL	0.379
11	IND	0.002	IND	0.000	IND	0.000	IND	0.000	IND	0.007

HKG=Hong Kong, China; JPN=Japan; IND=India; INO=Indonesia; KOR=Republic of Korea; MAL=Malaysia; PHI=Philippines; PRC=People's Republic of China; SIN=Singapore; TAP=Taipei,China; THA=Thailand.
Sources: UNDP. *Human Development Report*. Various issues. Available: http://www.hdr.undp.org (accessed March 2008); World Bank 2002. Knowledge Assessment Methodology. Available: http://www.worldbank.org/kam (accessed March 2008); and CBRC 2007. Available: http://www.cbc.gov.tw (accessed December 2007).

controlling for the much larger stock of Japanese and US patents, the study found that patents from the PRC and Malaysia cite patents from the Republic of Korea and Taipei,China more frequently than they do Japanese and US patents. However, countries with a more sophisticated technological capability, such as Singapore, cite the US as often as they do the Republic of Korea. These patterns of knowledge diffusion also support the notion that Integrating Asian economies should adopt technology that is appropriate to their level of economic and technological development.

Technology upgrading requires appropriate public policies to make up for the shortcomings of market forces. Policies and institutions that help to connect domestic producers and individuals with those from more developed economies are likely to expedite technology diffusion. For example, in the past decade, the PRC's semiconductor industry, particularly the foundry sector, has caught up remarkably with, for instance, those of Japan; Malaysia; and Taipei,China. The PRC's decision to liberalize the sector and open it up to foreign investors played a crucial role in stimulating a large

inflow of investment and managerial and engineering personnel from Taipei,China, accelerating the catch-up process.

Technology upgrading has been—and will continue to be—a vital part of successive waves of economic development in Asia. Developing regional mechanisms that help encourage and accelerate technology diffusion could thus bring huge benefits to the region. Box 3.2 sets out in greater depth how to promote technology diffusion and upgrading in Asia.

Box 3.2. Promoting technology upgrading and diffusion

To graduate from learning and imitation to innovation, an economy has to invest in the necessary resources. Such investments are risky and generate social returns higher than private ones. Government policies may therefore need to bear some of the excess risk that the private sector may not be willing to shoulder. Singapore's wafer-fabrication-specialist manpower program—whereby the Government subsidizes the training of college students to prepare them for employment in the semiconductor foundry sector—is a good example of such a government intervention.

Two major challenges in technology upgrading are (1) the harmonization of intellectual property rights (IPRs) protection—following the World Trade Organization's Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement—and (2) Asia's shortage of human capital. The extension of developed countries' higher standard of IPR protection to developing ones increases the cost of technology diffusion and imitation. Asian governments have to balance the need to enforce IPRs with that of ensuring adequate technology diffusion. And while Asia's primary and secondary education is generally good and widely available, the tertiary-level science and engineering training that is becoming crucial to technology upgrading is still poorly developed in most Integrating Asian economies.

Integrating Asian economies could alleviate this shortage by tapping into the large diaspora of scientists and engineers of Asian origin living and working in developed countries. Table B3.1 shows that 56% of immigrant scientists and engineers in the United States in 2003 were of Asian origin. Those from the Philippines outnumber those from the Republic of Korea; Taipei,China; and Japan combined. This pool of human capital could provide a huge boost to technology upgrading in Asia.

Table B3.1. Resources abroad: Asian scientists and engineers in the United States
Birthplace of immigrant scientists and engineers in the United States in 2003

Birthplace	Number ('000)	Percent
All countries	**3,352**	**100.0**
Asia	1,873	55.9
India	515	15.4
China[a]	326	9.7
Philippines	304	9.1
Korea, Republic of	120	3.6
Taipei,China	120	3.6
Viet Nam	97	2.9
Japan	46	1.4
Thailand	19	0.6

[a] China includes the People's Republic of China; Hong Kong, China; and Macau, China.
Source: National Science Foundation 2008. Science and Engineering Statistics. Available: http://www.nsf.gov/statistics/ (accessed March 2008).

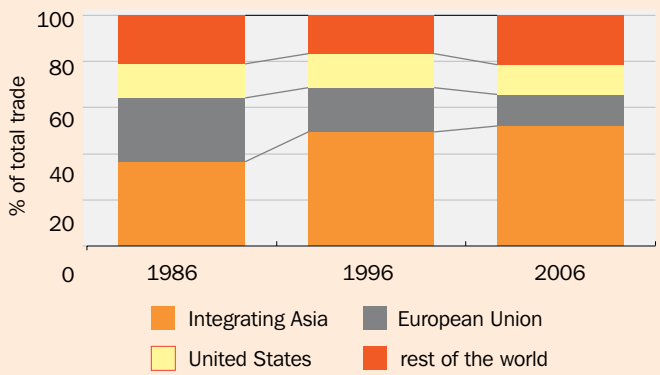
Trade integration

In large part due to the growth of production networks just discussed, trade within Asia has increased from 37% of its total trade in 1986 to 52% in 2006 (Figure 3.3). The share of trade with Europe has risen somewhat, while that with the US and the rest of the world has fallen. As set out in Chapter 2, Asia's intraregional trade share is now midway between Europe's and North America's. It is also higher than Europe's was at the outset of its integration process in the early 1960s.

But trade has not been diverted from the rest of the world. On the contrary, trade with each of Asia's four main partner groups has increased in the last two decades—not just absolutely, but also relative to Asia's GDP (Figure 3.4). For example, Asia's trade with the EU has more than doubled as a share of its GDP, from 2.6% in 1986 to 6.0% in 2006. The increase is even larger as a share of the EU's GDP. The aggregate trade data thus suggests that Asia is steadily integrating both regionally and globally.

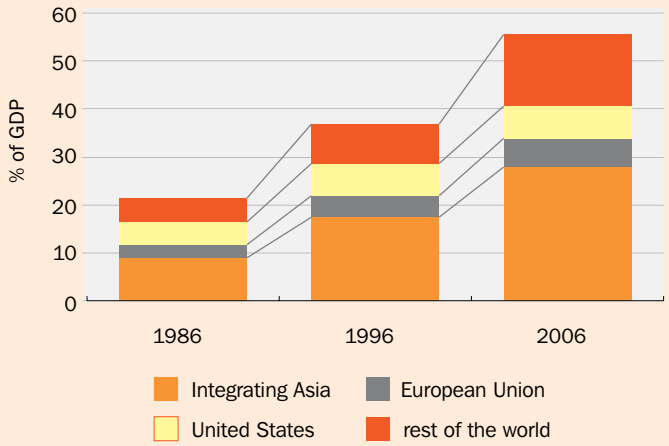
While intraregional trade is intensifying, external trade remains vital for Asian economies. Indeed, the increase in the share of Asia's exports destined for global markets understates their importance.

Figure 3.3. Increasing intraregional trade
Trade of Integrating Asia by destination



Notes:
Trade is import+export.
European Union includes the 25 countries that were members as of 2006.
Integrating Asia includes Brunei Darussalam; Cambodia; People's Republic of China; Hong Kong, China; India; Indonesia; Japan; Republic of Korea; Lao People's Democratic Republic; Malaysia; Myanmar; Philippines; Singapore; Taipei,China; Thailand; and Viet Nam.
Source: Data from IMF various years. Direction of Trade Statistics. Available: http://www.imf.org (accessed October 2007).

Figure 3.4. Increasing trade links
Trade of Integrating Asia as a share of GDP by destination



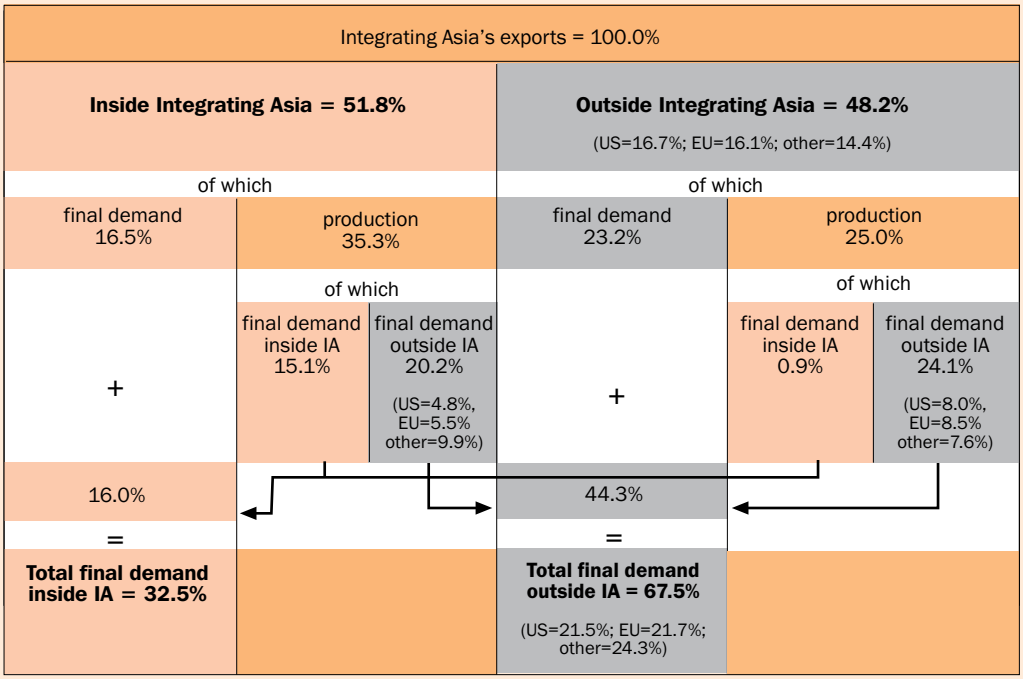
GDP = gross domestic product.
Notes:
Trade is import+export.
European Union includes the 25 countries that were members as of 2006.
Integrating Asia includes Brunei Darussalam; Cambodia; People's Republic of China; Hong Kong, China; India; Indonesia; Japan; Republic of Korea; Lao People's Democratic Republic; Malaysia; Myanmar; Philippines; Singapore; Taipei,China; Thailand; and Viet Nam.
Source: Data from IMF various years. Direction of Trade Statistics. Available: http://www.imf.org (accessed October 2007).

The pattern of fragmented production blurs where exports are ultimately destined: PCT within Asia is often incorporated into final goods shipped to Europe and North America. A detailed analysis of Asia's intraregional exports in 2006 reveals that while 48.2% of Asia's exports are directly shipped to Europe and North America, 67.5% ultimately end up there, when the parts and components content of exports is fully taken into account (Figure 3.5).

Evidence presented in Chapter 5 underscores the importance of Asia's global links. It shows that the transmission of short-term output fluctuations—another measure of production interdependence—has increased among Asian economies, as well as between Asia and the rest of the world.

In effect, Asia's regional and global relationships reinforce each other—its intraregional PCT, for instance—is partly driven by global final goods exports, and is also an important source of the region's

Figure 3.5. Asia's exports depend significantly on non-Asian final demand
Direct and indirect links, 2006



EU = European Union, IA = Integrating Asia, US = United States.
Methodological note:
The methodology was designed to determine to what extent the demand for exports of IA was due to direct and indirect final demand of IA, and to final demand in other world regions. Exports of IA are divided between those destined within IA (intraregional exports) and those destined outside IA. Exports outside IA are divided between exports to the United States, the European Union, and other areas. Total exports are divided between those destined for final demand and for production. Exports destined for production are divided between those destined for IA final demand and for final demand for the rest of the world. Exports destined for final demand are obtained as the sum of those destined directly for final demand and those destined for production but for the use of final demand. See also Hertel 1997.
Source: ADB staff estimates calculated using input-output tables from the Global Trade Analysis Project (GTAP) database. (GTAP version 6.2a, released in 2007). Available: http://www.gtap.agecon.purdue.edu/ (accessed March 2008).

competitiveness. As neither regional nor global trade patterns could be sustained independently, the policies that Asia adopts to manage its growing trade and investment interdependence will also have to support its global ties.

Integration through investment

Technological upgrading and connections with world markets are essential elements of Asia's manufacturing competitiveness. Most

Asian economies have relied for decades on FDI to tap technologies, capital, foreign exchange, and ready-made access to external markets. Japan and the Republic of Korea, by contrast, attempted to bypass foreign ownership by promoting technology transfer through international trade—through imports of advanced capital goods, licensing, and other approaches, for instance. Both groups, though, have used international competition to set benchmarks for product quality and drive innovation.

FDI is particularly important in the context of production networks. Often, this trade-investment nexus is based on the FDI strategy followed by MNCs; but even when arms length transactions are involved, the business connections and technologies associated with FDI represent valuable assets for countries as they attempt to focus on niche markets, especially in technology-intensive sectors such as electronics and automobiles.

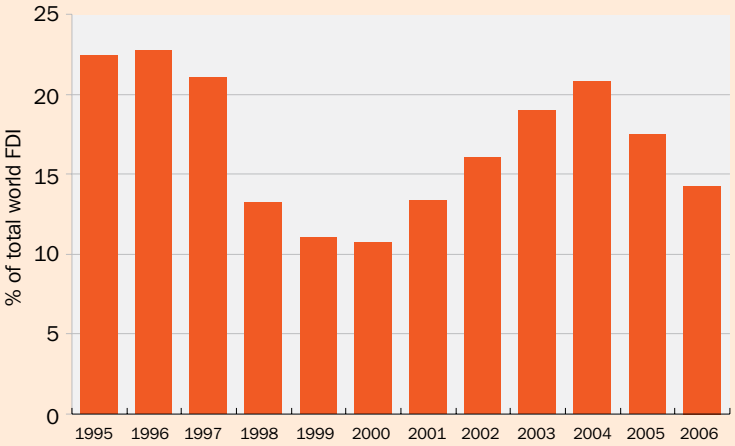
Before the 1997/98 financial crisis, FDI flowed into Asia at a record pace, with the region attracting nearly a quarter of global inflows and the largest share of FDI to non-industrialized countries. These were less affected by the crisis than other types of capital flows and, except for a burst of activity at the height of the "Internet bubble" in 1999–2000, remained relatively steady afterward (see Figures 3.6 and 3.7 and Table A3.1 in the appendix to this chapter).[23] Since 2004, however, FDI has soared again, with the PRC attracting record inflows.

Over the past decade, the PRC and Hong Kong, China together accounted for between 53% and 68% of Asia's FDI inflows. A large share of PRC exports is undertaken by affiliates of foreign MNCs, which are often reckoned to be assembly hubs with relatively low domestic value added. For instance, Chen (2007) finds that while the PRC's aggregate exports to the US are four times those of the US to the PRC, in terms of domestic value added they amount to less than half that amount. In addition, Athukorala (2007b) finds that the value added in the PRC's high-tech exports is relatively low, despite the rapid upgrading of its technological capabilities.

Despite fears that the PRC is diverting FDI from other Asian economies, there is little evidence of this. On the contrary: Busakorn, et al. (2005) find that, controlling for other factors, FDI flows to the

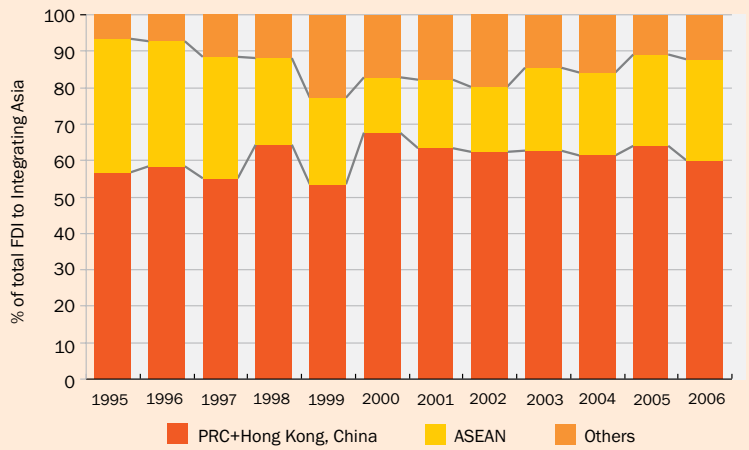
[23] Asian FDI data are difficult to read because some of the foreign investment flows into Hong Kong, China, including from the PRC, may involve projects in the PRC. This may lead to the misassignment of destinations and possible double counting in the data.

Figure 3.6. Integrating Asia's net foreign direct investment flows, 1995–2006



FDI = foreign direct investment.
UNCTAD = United Nations Conference on Trade and Development
Source: UNCTAD various years. FDI Statistics Online and World Investment Report 2007 database. Available: http://stats.unctad.org/FDI/ (accessed April 2008).

Figure 3.7. Foreign direct investment to Integrating Asia
Share of total investment by groups of countries, 1995–2006



ASEAN = Association of Southeast Asian Nations, FDI = foreign direct investment, PRC = People's Republic of China.
UNCTAD = United Nations Conference on Trade and Development.
Others: India; Japan; Republic of Korea; and Taipei,China.
Source: UNCTAD various years. FDI Statistics Online and World Investment Report 2007c database. Available: http://stats.unctad.org/FDI/ (accessed April 2008).

PRC are positively correlated with those to other Asian countries—a 10% increase in the former leads to a 2–3% rise in the latter. Plummer and Cheong (2007) also find a positive "China effect," while Athukorala (2007b) shows that the PRC's integration into cross-border production networks has created new opportunities for other East Asian economies to specialize in parts and components production and assembly. Yet competition from the PRC is also prodding ASEAN economies to pursue bolder national reforms, seek deeper regional integration, and develop closer links with the PRC—notably through the ASEAN-China FTA —in order to connect to supply chains in which it serves as the regional hub.

3.2. Policies for sustained growth and integration

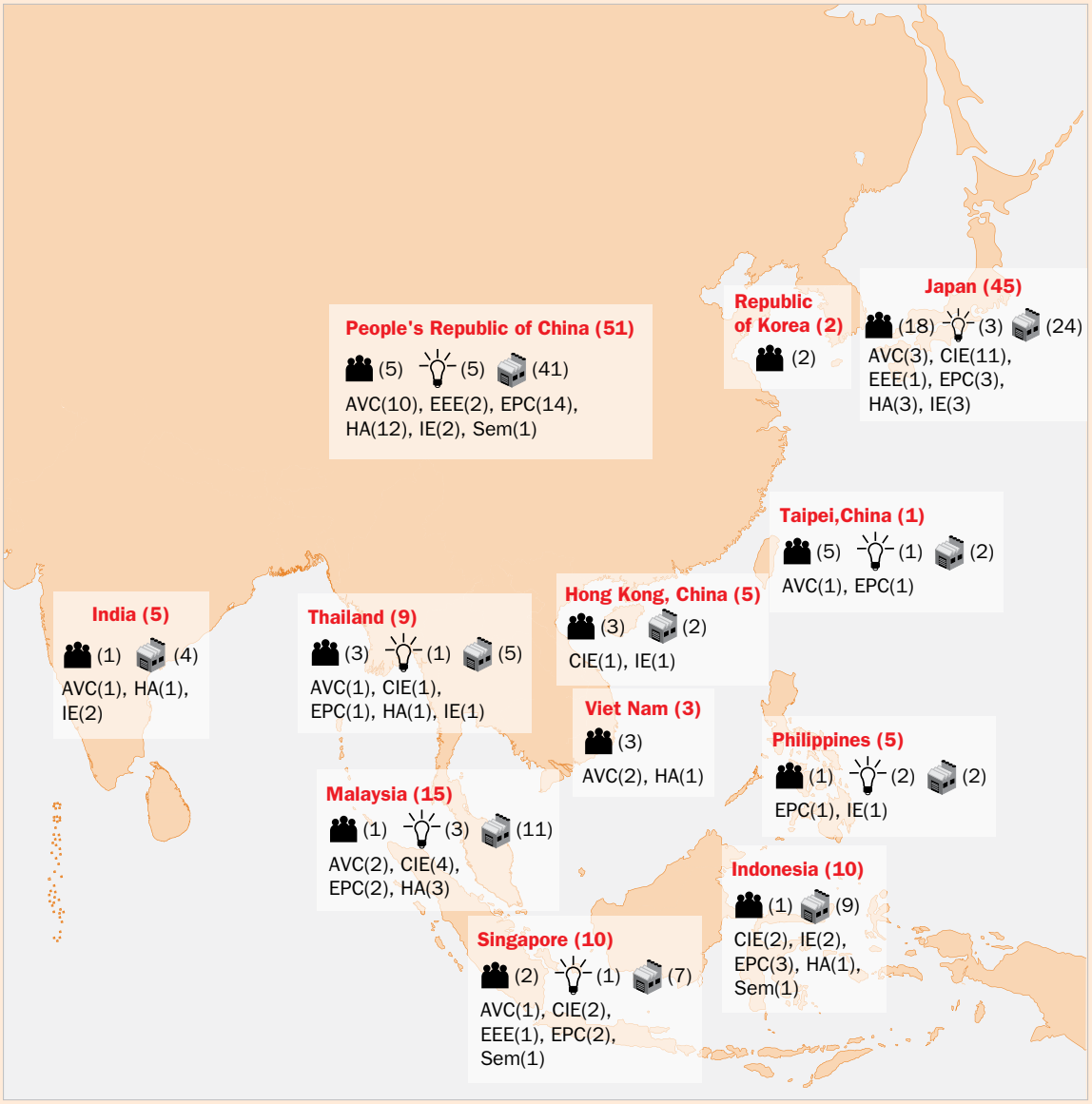
Several MNCs have established extensive production networks in Asia, which are contributing not only to the development of economies that receive FDI, but also to the region's integration in production and trade. Following the flying geese pattern of industrial development and transfer in the region described in Chapter 2, Asian MNCs tend to locate their production facilities in Asia according to a number of factors. These include the degree of technological sophistication of the FDI-receiving country; the presence of a subcontracting industry for parts and components; the development of economic infrastructure; local regulations and the treatment of foreign firms; and the availability, cost, and quality of the labor force (Belderbos, Capannelli, and Fukao 2001).

While MNCs' location strategies vary, firms also tend to diversify their production locations in order to benefit from comparative advantages and reduce production risks, as well as to offset exchange rate fluctuations. As trade is liberalized, FDI regulations are improved, and technological capabilities are upgraded, MNCs are finding it easier to diversify their presence in Asia. The span of the Asian production networks created by a Japanese electronics firm and a Korean automotive firm are shown in Figures 3.8 and 3.9.

While production fragmentation is a global phenomenon, its extent and effects have been particularly pronounced in Asia. Why is this so, given that the factors that gave rise to it, including ICT, often originated elsewhere?

Asia's fundamentals—notably the diversity of its economies, the vast size of some of them, and its relatively low intraregional transport

Figure 3.8. Locations of a large Asian multinational company: electrical and electronics industry, 2008



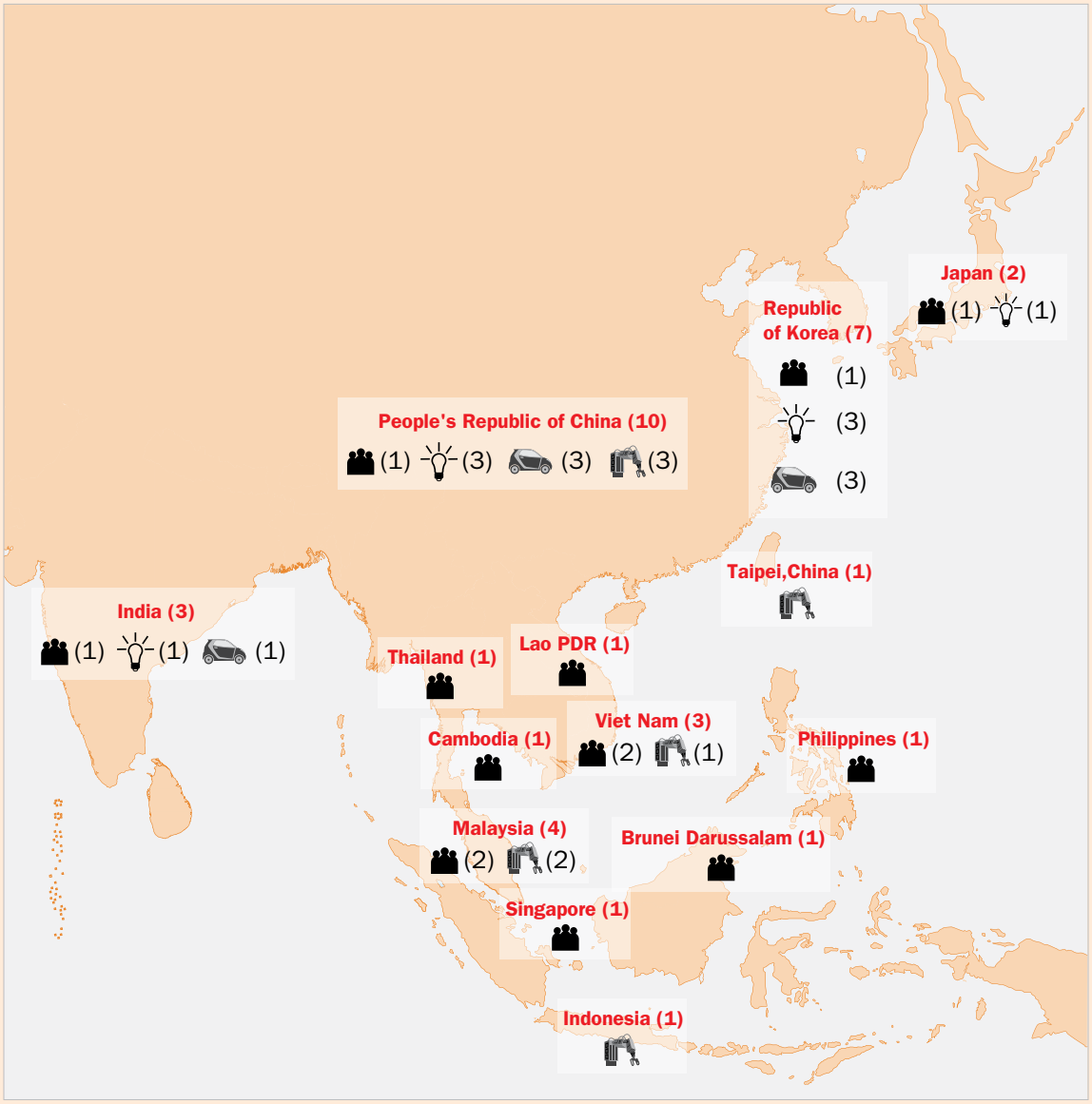
Notes: Number of offices, centers, and production sites in parenthesis (). AVC = audio-video and communication; CIE = consumer and industrial electronics; EEE = electrical and electronic equipment; EPC = electrical and electronic parts and components; HA = home appliances; IE = industrial electronics; Sem = semiconductors. Consumer electronics include AVC and home appliances. Industrial electronics include electrical and electronic parts, components, and equipment.

Source: Panasonic Global website. 2008. Corporate Profiles. Available: http://www.panasonic.net/corporate/global_network/ (accessed 28 February 2008).

Legend

- Sales and administration
- Research and development
- Production plant

Figure 3.9. Locations of a large Asian multinational company: automotive industry, 2008



Lao PDR = Lao People's Democratic Republic.
Source: Hyundai Global CSR Company. 2008. Global Operations.
Available: http://www. hyundai-motor.com (accessed 5 March 2008).
Also updated by Global PR Team, Hyundai Motor Company.

costs—are part of the answer. But the region's policy environment has arguably been even more important. Asia's liberal trade policies have fostered PCT, notably in the upstream capital goods required for integrating production processes spanning several countries. Domestic policies have also made it progressively easier and cheaper for both domestic and foreign firms to invest and do business. Combined with the region's natural advantages, such far-sighted policies have created exceptional opportunities for developing manufacturing centers and clusters.

For sure, this environment is still far from perfect. Trade could be liberalized further, and the infrastructure—both physical and bureaucratic—on which trade depends improved. Domestic reforms—notably in the areas of regulation, competition policy, and corporate governance—are also essential. This is especially true for countries that are just beginning to deregulate their economies and build the institutions of a market economy, as well as for those still resolving legacies of government intervention and cartelized or monopolistic markets.

Making it easier to do business

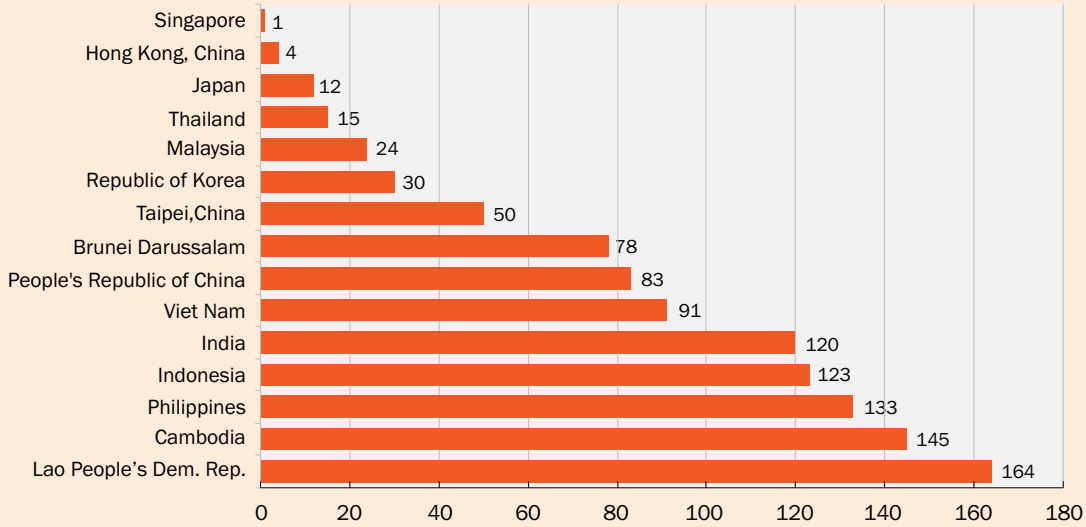
Among the national reforms that are most important for fostering regional supply chains are measures to make it easier to do business.[24] The World Bank's annual Doing Business survey, which gauges business regulations and their enforcement, seeks to provide an objective measure of the success of such policies. It covers 175 countries, including almost all of those covered by this report. Each is ranked according to an overall indicator of "ease of doing business" (Figure 3.10) as well as in the 10 specific areas listed in Table A3.2 in the Appendix to this chapter.[25]

Asian economies range from very liberal—Hong Kong, China; Japan; Singapore; and Thailand are in the world's top 20—to very restrictive. Five rank outside the top 100. Asia's strongest areas

[24] Results from Dee (2007) suggest that domestic regulatory reform should be a top priority for most developing Asian economies, not just to improve domestic efficiency, but to increase their attractiveness as locations for fragmented production.

[25] Under each of these general areas are subcategories. For example, under "starting a business", the survey includes rankings for the number of procedures required to start a business, the number of days it takes to complete these procedures, the cost as a percentage of per capita income, and minimum capital requirements as a percentage of per capita income. These subcategories are interesting, but this chapter focuses on the general categories. For greater detail, see http://www.doingbusiness.org/.

Figure 3.10. Ease of doing business varies across Asia
Rankings of 178 economies by the World Bank, 2007



Note: Economies are ranked on their ease of doing business, from 1 to 178, with first place being the best. A high ranking on the ease of doing business index means the regulatory environment is conducive to the operation of business. This index averages the country's percentile rankings on 10 topics, made up of a variety of indicators, giving equal weight to each topic.
No data available for Myanmar.
Source: World Bank 2008a. Doing Business 2008. Available: http://www.doingbusiness.org/economyrankings/ (accessed April 2008).

include "trading across borders," "getting credit," and "protecting investors"; its weakest involve "paying taxes," "starting a business" (in which the former planned economies still do poorly), and "dealing with licenses."

Such rankings are inevitably incomplete, and basing policy decisions on them would be erroneous. Yet they suggest plenty of scope for regional policy dialogue and reform. Not only do Asia's advanced economies score highly on all attributes, developing Asia also has world leaders in virtually every area of business policy. This represents a tremendous base of experience for informing policy and reform. Malaysia, for example, has one of the world's top-ranked investor protection systems; the Republic of Korea and Thailand have good licensing policies; while business exit is particularly well handled in Taipei,China. Sharing best practices ought to be a regional priority.

Improving market access

Asian economies have liberalized their trade policies considerably—sometimes remarkably so. In part, this has been driven by WTO accession, as well as by multilateral liberalization more generally. But many economies have also liberalized unilaterally as part of their outward-oriented development strategy.[26] Table 3.3 provides an indication of tariff levels in Integrating Asian economies in 2005 and shows how they have freed up their trade during the past two decades.[27]

Perhaps most significantly, the table shows how sharply the PRC reduced its tariffs between 1992 and 2005; it now compares favorably to most ASEAN countries. Much of this reduction occurred in a short period of time, reflecting the PRC's wide-ranging reforms as it intensified its outward-oriented development strategy and acceded to the WTO. India's liberalization has been less extensive so far, but is still significant, particularly since the 1991 crisis. Average tariffs in all manufactured sectors have fallen by more than half since 1990—in some cases, by much more—although tariff spikes persist in politically sensitive industries. In ASEAN, tariffs on manufactures have also generally come down, sometimes significantly. Save for modest exceptions, average tariffs are now less than 10% in all sectors. While Viet Nam's tariffs have been stable since 1994, its nontariff barriers have been slashed. Two economies—Hong Kong, China and Singapore—are essentially free-traders, and some regional economies are planning to follow suit. Brunei Darussalam has cut its tariffs to essentially zero except for machinery and miscellaneous manufactures. Cambodia and the Lao People's Democratic Republic are also likely to follow this path, in order to overcome the limitations of their small domestic markets. The more advanced economies of Japan; the Republic of Korea; and Taipei,China are also quite open, except in agriculture.

Yet tariff averages are an imperfect measure of openness to trade. Calculating tariff equivalents for import quotas is tricky enough,

[26] For sure, to take advantage of international markets requires many other factors, such as macroeconomic stability, the capacity to provide correct microeconomic signals, the presence of economic infrastructure, forward-looking government policy (in terms of developing human capital, disseminating information on international markets, and overcoming market failures), and a well-prepared private sector.

[27] Given that this report focuses on changes in sectoral production more than on overall average production, data are shown for ten product categories (based on one-digit Harmonized System classification, aggregating from the five-digit classification).

while assessing the impact of discretionary licensing requirements and antidumping duties is even more so. The GATT's (WTO) Uruguay Round made some progress in addressing nontariff barriers (NTBs), notably by converting agricultural quotas into tariffs and phasing out "orderly-marketing arrangements" such as the Multi Fibre Arrangement. Increases in tariffs—particularly in agriculture—are often due to the conversion of NTBs into more transparent and less problematic tariffs, which are now being normalized and (it is hoped) will thus become easier to liberalize. EU and US import quotas on textiles and clothing from the PRC, for example, were permitted only as part of the PRC's WTO accession agreement and will have to be phased out in 2008.

Efforts to measure the comprehensive impact of all trade restrictions yield interesting but varied results. Feridhanusetyawan (2005) has produced trade restrictiveness indexes that suggest that Hong Kong, China; Singapore; and Taipei,China have the lowest restrictions. Most other Asian economies, including Cambodia, the PRC, India, and the five largest ASEAN economies, are ranked "intermediate"; only three (the Lao People's Democratic Republic, Myanmar, and Viet Nam) are described as "restrictive." In some of these countries, substantial changes have since occurred. An index by Kee, Nicita, and Olareaga (2006) yields somewhat different outcomes; for example, most Asian economies rank ahead of Singapore in their study's overall trade restrictiveness index (Figure 3.11). The study also finds that Asian economies generally offer better import access than their trading partners offer to Asian exports.

Perhaps the most impressive feature of Asia's trade policy over the last decade is what did not happen. Rather than restraining imports during the 1997/98 financial crisis and its difficult aftermath, Asian economies continued to open up. Indeed, tariff indicators may understate the progress made. The region's transitional economies have introduced new, trade-oriented commercial policy regimes, and most economies have adopted the more rigorous NTB framework developed in WTO's Uruguay Round. Yet there are still high average tariffs in some sectors, significant tariff spikes, and problematic NTBs in some countries. In short, while Asia's trade liberalization has been impressive, much remains to be done.

3.3. Trade cooperation

Asian economies have broadly liberalized their trade; their progress compares favorably with most other regions. The trend for trade

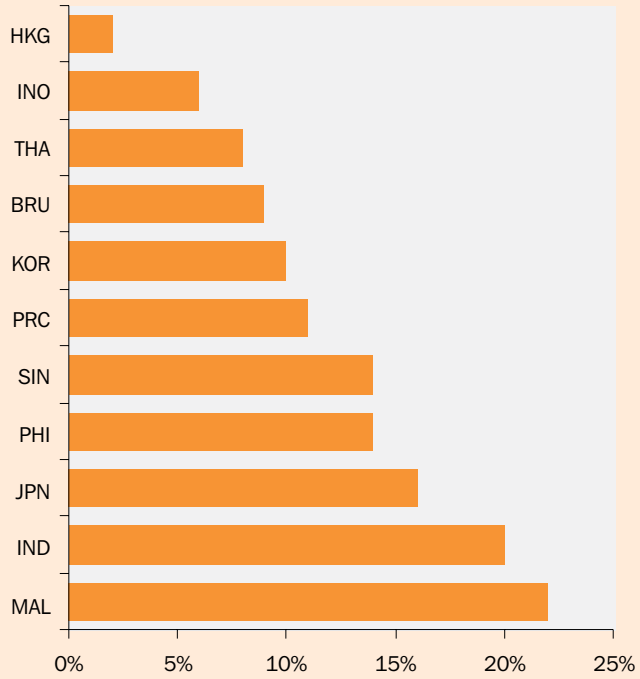
Table 3.3 Trade policy in Integrating Asia: ad valorem applied tariffs, various years

Economy	Year	Food and animals	Beverages and tobacco	Crude materials	Mineral fuel, lubricants, etc.	Animal and vegetable oil
Brunei Darussalam	1992	0.0	24.2	3.8	0.0	0.0
	2005	0.1	0.0	0.6	0.0	0.0
Cambodia	2001	9.7	9.8	7.9	22.4	7.0
	2003	12.2	9.0	7.6	21.6	7.0
China, People's Republic of	1992	13.8	105.5	13.7	8.2	27.2
	2005	12.5	12.2	3.5	1.6	13.2
Hong Kong, China	1988	0.0	0.0	0.0	0.0	0.0
	2005	0.0	0.0	0.0	0.0	0.0
India	1990	40.7	284.3	66.5	4.0	116.8
	2005	46.0	83.7	12.4	11.0	82.3
Indonesia	1990	9.3	18.5	4.3	3.6	18.6
	2005	5.8	31.5	1.8	3.8	3.8
Japan	1990	12.6	13.9	1.0	1.6	8.0
	2005	16.9	3.9	0.6	0.6	3.4
Korea, Republic of	1990	11.9	37.9	3.6	5.5	8.9
	2004	93.3	21.9	23.4	4.0	7.2
Malaysia	1991	4.4	44.1	3.0	3.6	1.9
	2005	3.0	19.8	1.1	1.2	2.1
Philippines	1990	19.5	27.1	11.8	10.3	24.6
	2005	7.7	9.6	3.2	4.8	10.5
Singapore	1989	0.1	0.0	0.0	4.3	0.0
	2005	0.0	4.0	0.0	0.0	0.0
Taipei,China	1989	16.7	42.5	1.7	10.6	11.2
	2005	10.6	16.7	0.4	1.1	1.7
Thailand	1991	47.4	19.0	14.5	24.9	20.0
	2005	10.0	59.3	4.4	0.4	15.7
Viet Nam	1994	17.5	119.8	0.6	36.6	15.4
	2005	17.7	77.0	1.8	14.8	33.9

Note: Ad valorem equivalents calculated using the United Nations Commission on Trade and Development (UNCTAD) Method 1.
Source: UNCTAD 2007b. Trade Analysis and Information System (TRAINS). Available: http://wits.worldbank.org/witsweb/ (accessed December 2007).

Chemical products	Manufactured goods	Machinery and transport equipment	Miscellaneous manufacturers	Other commodities	Year	Economy
2.3	1.6	6.2	4.3	0.0	1992	Brunei Darussalam
1.1	1.6	11.4	3.7	0.0	2005	
6.8	16.9	18.9	20.8	0.3	2001	Cambodia
5.9	16.8	18.8	21.0	0.4	2003	
22.2	41.8	34.0	50.2	36.5	1992	China, People's Republic of
7.3	6.4	4.0	7.6	5.6	2005	
0.0	0.0	0.0	0.0	0.0	1988	Hong Kong, China
0.0	0.0	0.0	0.0	0.0	2005	
93.5	71.7	74.0	66.5	93.7	1990	India
14.7	16.1	9.8	11.3	15.0	2005	
7.1	13.3	19.5	16.0	18.8	1990	Indonesia
5.7	8.6	5.6	9.3	0.5	2005	
4.3	3.0	0.1	6.2	0.3	1990	Japan
1.9	1.8	0.1	4.8	1.0	2005	
11.4	10.7	11.5	12.8	3.4	1990	Korea, Republic of
7.4	4.0	3.5	6.3	2.8	2004	
9.9	13.4	10.3	12.4	2.5	1991	Malaysia
4.9	15.5	2.8	4.8	0.1	2005	
12.7	19.8	13.4	21.2	28.7	1990	Philippines
5.0	6.0	1.8	5.7	3.8	2005	
0.0	0.0	0.9	0.8	0.0	1989	Singapore
0.0	0.0	0.0	0.0	0.0	2005	
6.5	9.1	12.8	9.1	0.9	1989	Taipei,China
1.9	1.9	2.7	2.2	0.0	2005	
31.3	18.3	37.4	42.8	35.1	1991	Thailand
6.8	5.5	6.1	11.2	0.2	2005	
2.5	18.6	12.0	20.3	0.6	1994	Viet Nam
3.9	18.0	13.2	21.7	6.6	2005	

Figure 3.11. Overall trade restrictive index in Asia



BRU=Brunei Darussalam; HKG=Hong Kong, China; IND=India; INO=Indonesia; JPN=Japan; KOR=Republic of Korea; MAL=Malaysia; PHI=Philippines; PRC=People's Republic of China; SIN=Singapore; THA=Thailand.
Note: The restrictiveness indexes are estimated using 2005–2006 tariff schedules.
Source: Data adapted from Kee, Nicita, and Olareaga. 2006.

liberalization reflects unilateral policies as well as a sustained commitment to global liberalization. But the world is changing. As of May 2008, an agreement on the WTO's Doha Development Agenda remains elusive, and new or deeper regional or subregional arrangements are emerging. Until the establishment of AFTA in 1992, Asia had not participated in any regional trade agreements, but bilateral and other preferential trade agreements have now taken hold in Asia, too. This poses a great challenge to the region's traditional model of cooperation, which has relied on unilateral and global approaches to trade policy.

The rise of free trade agreements

Given Asia's large stake in global markets, the region's new interest in bilateral and plurilateral FTAs is a surprising departure from its earlier trade policies. Such agreements could lead to preferential blocs that undermine the global trading system and make it particularly difficult to accommodate the rise of the PRC and India. Yet in the absence of global agreements, more limited regional agreements could be effective—both in sustaining progress toward more open markets and in fostering deeper regional integration among outward-oriented countries.

There is good reason to expect that Asia's bilateral and regional trade agreements will prove to be consistent with globally-oriented integration strategies. They are primarily motivated not by the pursuit of protectionist preferences, but by frustration at the slow pace of global liberalization. Since the Doha Round is stalled, economies that wish to pursue deeper integration need to take the regional route. Asian economies could thus benefit from well-designed regional agreements that are consistent with WTO and include best practices for minimizing trade diversion. Such outward-oriented regional agreements could set a model for other regions and ultimately lay the groundwork for further multilateral liberalization.

Regionalism in Asia is partly defensive. Virtually all developed countries are pursuing preferential trading arrangements that could divert trade and investment away from Asia. European integration has deepened greatly since the 1990s—notably through the creation of a single EU market and the successful launch of the euro—while the EU has also admitted transition economies in Central and Eastern Europe that could potentially compete with Asia for trade and investment. In addition to NAFTA, the US has pursued many FTAs around the world. Since Asia's final exports often go to Europe and the US, the rules of origin requirements (ROORs) built into the new FTAs could have an important bearing on MNCs' sourcing in Asia. Asian economies understandably feel compelled to conclude their own agreements with these critical markets. Another factor behind FTAs' popularity is the perceived success of deeper integration in the EU as well as in NAFTA. Each involves a wide range of provisions that go beyond trade liberalization, such as the national treatment of investment. International agreements are seen as a means to remove

domestic impediments to market integration and reduce international transaction costs.[28]

Somewhat paradoxically, the PRC's admission to the WTO in December 2001 may also have given an impetus to regional FTAs. Joining the WTO has forced the PRC to enact many rules-based policies, open its markets, and create new opportunities for FDI and trade—and thus made it an even more effective exporter. The fear of increased competition from the PRC has made some WTO members reluctant to liberalize "too much" and encouraged them to seek more limited agreements instead.[29] At the same time, the rise of the PRC and India has also drawn attention to the benefits of large integrated domestic markets. The decision to accelerate the development of the ASEAN Economic Community to 2015 (discussed in Chapter 7) may also have been partly motivated by these factors. A single ASEAN market would be closer in size to the PRC's and India's, allowing it to achieve greater scale economies and other dynamic effects that would enhance its competitiveness and attract investors.

Within ASEAN, the many bilateral FTAs under negotiation provide a further rationale for integration. Members' external agreements threaten to undermine ASEAN solidarity and even its integration, since the resulting FTAs could be deeper than those within ASEAN itself. One solution is to pursue deeper integration in ASEAN; another is to maximize members' leverage by negotiating FTAs collectively. ASEAN is pursuing both options: it has negotiated an FTA with the PRC and is in talks with India, Japan, and the Republic of Korea. Negotiations with Australia and New Zealand, as well as with the EU, are also proceeding.

A summary of Asia's FTA initiatives (Table 3.4) shows that nearly twice as many agreements are being negotiated or have been proposed as have been concluded. As of December 2007, integrating Asian economies had concluded 44 FTAs, while 49 were under negotiation and a further 41 had been proposed. While Singapore has concluded the most (11) and has 10 FTAs under negotiation and five proposed, the PRC, India, and the Republic of Korea each have 15 or more in the pipeline. One reason why these economies are more active in negotiating FTAs may be their superior trade negotiating capacity. Less developed economies (Cambodia, the Lao People's Democratic

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[28] Menon (2007) defines "market restoring" as the first motivation and "sector expanding" the second one.

[29] This was explicitly noted as a motivation for Brazil's initiation of free trade agreement (FTA) negotiations with the EU (Miller 2007).

Table 3.4. Integrating Asia's free trade agreements
Status as of December 2007

Negotiating body	Concluded	Under negotiation	Proposed	Total	of which	
					inside IA	Outside IA
ASEAN	2	4	0	6	4	2
Brunei Darussalam	3	0	4	7	3	4
Cambodia	1	0	2	3	2	1
China, People's Republic of	7	6	9	22	8	14
Hong Kong, China	1	1	0	2	1	1
India	8	10	12	30	8	22
Indonesia	3	1	6	10	4	6
Japan	8	7	4	19	12	7
Korea, Republic of	6	5	11	22	9	13
Lao People's Dem. Rep.	3	0	2	5	3	2
Malaysia	4	5	4	13	5	8
Myanmar	1	1	2	4	2	2
Philippines	2	0	4	6	3	3
Singapore	11	10	5	26	6	20
Taipei,China	4	2	1	7	0	7
Thailand	6	6	6	18	7	11
Viet Nam	1	1	2	4	3	1
Total	**44**	**49**	**41**	**134**	**30**	**104**
Concluded					14	30
Under negotiation					8	41
Proposed					8	33

ASEAN = Association of Southeast Asian Nations, IA = Integrating Asia.
The total avoids double counting and does not correspond to the vertical sum of agreements by status.
Notes on status of free trade agreements:
Concluded = Signed and/or under implementation.
Under negotiation = Under negotiation with or without a signed framework agreement.
Proposed = Involved parties are considering creating an agreement, establishing joint study groups or joint task forces, and/or conducting feasibility studies for an agreement.
Source: Data from Asia Regional Integration Center. 2008. FTA Database. Available: http://www.aric.adb.org (accessed March 2008).

Republic, Myanmar, and Viet Nam) tend to rely more heavily on AFTA- and ASEAN-negotiated FTAs instead. In any case, most of the agreements involve non-Asian countries: of the total 134 FTAs, 104 were with countries outside the region.[30] In short, while the pattern of regional agreements is still fluid, a great many deals are happening.

FTAs' coverage and depth vary significantly. The deepest and most wide-ranging are typically bilateral deals with developed partners, in particular Japan and the US. The US–Singapore FTA, for example, is being used as a model for other FTAs with ASEAN countries under the Enterprise for ASEAN Initiative.[31] It includes chapters stipulating WTO-plus features in intellectual property rights and foreign investment; government procurement; e-commerce; technical barriers to trade; environment and labor; and financial services, telecommunications, and cross-border services.

As FTAs proliferate, the question of whether greater benefits could be achieved by integrating them naturally arises. The consolidation of Asia's bilateral and regional FTAs has been explored in ASEAN+3[32] meetings and at the East Asian Summit (EAS). While no decisions have been taken, high interest in such efforts is significant. Similar initiatives could eventually be considered with partners outside Asia, too—for example, in the context of APEC, which has recently begun to explore the option of a "Free Trade Area of the Asia-Pacific," or through the ASEAN–EU FTA, which is under negotiation.

The economics of Asian free trade agreements

The strongest arguments for FTAs in Asia relate to their dynamic effects, which are cumulative and pervasive.[33] Asian tariffs are low and falling, so the trade diversion usually associated with discriminatory agreements is limited. If FTAs can reduce the transaction costs of trading and investment, they can create a production base of unparalleled scale and diversity. Regional production and trade networks are the principal drivers and beneficiaries of this process.

[30] Japan is the only large Asian economy with a significant positive regional bias. For all other Asian economies, the sum of FTAs that have been concluded, are under negotiation, or are proposed with economies outside Integrating Asia is higher than that for inside the region, with the exceptions of Cambodia, the Lao People's Democratic Republic, and Viet Nam.

[31] For details, see Naya and Plummer (2005), Chapter 4.

[32] Association of Southeast Asian Nations (ASEAN) countries plus the People's Republic of China (PRC), Japan, and the Republic of Korea.

[33] A detailed review of these dynamic effects would be beyond the scope of this text. For a more detailed review, see Plummer (2007).

By boosting FDI inflows, FTAs could promote technology transfer and make it easier to adopt trade- and investment-facilitating measures, such as harmonized customs classifications and procedures, compatible product standards, and best practices in accounting and management—all of which bolster efficiency and attract investment. Such deep integration can be difficult to implement because it involves domestic measures that require complementary national policies in several countries. Yet progress may arguably be easier in Asia because of its shared commitment to outward-oriented growth.

The traditional objection to FTAs focuses on static trade effects. While FTAs remove discrimination among partner countries (and thus create trade), they discriminate in favor of members at the expense of nonmembers (and thus divert trade to less productive suppliers located within the FTA). This worsens an economy's terms of trade, since it implies purchasing imports from a higher-cost source. It also worsens the terms of trade of efficient outside producers, since they are left with smaller markets for their products.

Preferential FTA sourcing can also generate "investment diversion," that is, FDI inflows into a protected market. However, if an FTA expands the coverage of goods and services that are open to international competition and involves deeper liberalization, it may discriminate less across products than would be the case with multilateral liberalization, causing fewer ultimate distortions.[34] And since agreements among a few countries may be easier to conclude than at the WTO level, FTAs might deliver wider, deeper, and faster results than multilateral liberalization.

Are, then, FTAs building or stumbling blocks to global free trade? It depends on the context and structure of each FTA. An agreement that seeks to bolster inefficient regional industries will be harmful. But this is not what most Asian economies are seeking to achieve. They have long pursued outward-looking policies and their levels of protection are low and falling. Indeed, preferential arrangements may accelerate reductions in Asian economies' barriers to third countries, as they seek to avoid losses associated with trade diversion. In effect, this could lead to the multilateralization of regional concessions.[35] More generally, FTAs can be specifically designed to remain outward-

[34] For example, WTO's Article XXIV states that FTAs should generally reduce tariffs to zero.

[35] For example, as ASEAN Free Trade Area (AFTA) began to be implemented, the Philippines proposed, with a good deal of support, that AFTA cuts should be multilateralized.

oriented and embrace best practices, as described in the following section.

The most serious concern with recent FTAs involves their ROORs, which stipulate that a certain percentage of value added, or a substantial transformation of a product, take place within the FTA members. These rules are often product-specific and involve costly bureaucratic requirements that protect home producers. NAFTA, for example, requires that 62.5% of the value added of most products be produced in North America; in the case of textiles, the rate is essentially 100%, because of the "yarn forward" rule. Worse, a country that concludes many FTAs could end up with different rules for a product in each of its FTAs, creating confusion and distortion in input sourcing decisions.

Kawai and Wignaraja (2008) have examined the consistency of ROORs across various Asian FTAs. Considering the six major four-digit Harmonization Schedule codes in autos and auto parts, they find that ROORs in the Japan–Malaysia, Japan–Singapore, and Japan–Thailand FTAs are not consistent in any product line, and that the Japan–Malaysia and Japan–Thailand agreements are consistent in only two. James (2006) also finds that Asian FTAs generally lack consistency. Compliance costs present a further problem. Estevadeordal and Suominen (2003) estimate that an FTA's special reporting requirements may cost 3–5% of the value of exports. Indeed, Baldwin (2007) argues that "almost no one uses AFTA preferences" and that the AFTA utilization rate is less than 3%.[36] Other studies tend to confirm this view and find that the utilization rate of FTAs by firms across the integrating Asia region is usually below 10%. While this tendency is closely related to Asia's already relatively low average tariff rates, a strong advantage of the multilateral WTO framework is that it mostly avoids the effect of inconsistent and/or expensive ROOR compliance problems.

FTAs have advantages and drawbacks, and it is too early to tell what their overall impact on Asia will be. Ex ante models (such as ADB 2006a) predict positive effects, but find that the benefits of a

[36] Intra-ASEAN trade constitutes about a quarter of the region's total trade, and much of this is either in petroleum—in which there are not only low or zero tariffs but also much double counting—and intra-industry electronics trade, where tariffs are eliminated by the World Trade Organizations (WTO) Information Technology Agreement and by export processing zone duty waivers and drawbacks. Singapore accounts for the largest share of intra-ASEAN trade, a large percentage of which is entrepot trade and not eligible for preferences. Hence, the low (but much-quoted) utilization rate underestimates the effectiveness of AFTA.

typical bilateral agreement are dwarfed by those of region-wide accords. Wider, deeper agreements produce bigger gains than more limited ones, and following best practice policy guidelines can minimize the negative side effects of discriminatory trade practices. Plummer and Wignaraja (2007) find that, as theory predicts, both Asia and the rest of the world would gain most from multilateral trade liberalization. However, so long as the Doha Round remains stalled, Asian economies would gain most from tariff reductions at an ASEAN+3 or EAS-wide level, and very little from a disparate collection of bilateral agreements.

3.4. Regional strategies and solutions

The world economy is in flux. The economics of trade relations is changing, and the coalitions that built the global trading system are splintering. While Asia is becoming more interdependent, it also relies on global markets for its exports, notably of manufactures. Asia therefore needs to strike a careful, creative balance between promoting regional integration as a driver of economic growth and promoting multilateral cooperation and liberalization to sustain its broad, global trading interests. Asia's choices matter: its growing weight and interdependence are increasingly helping it shape its own—and the world's—destiny.

Championing global agreements

Asian regionalism has both global and regional dimensions. Asia's global interests call for nesting regional policies in a multilateral framework that ensures continued close cooperation with Europe, North America, and other regions. As discussed in Chapter 7, Asia's engagement in WTO and pan-regional forums such as APEC and the Asia-Europe Meeting (ASEM) provides a basis for strong relationships with the rest of the world. At the same time, Asia's regional interests require new frameworks to promote deeper integration across a wide range of areas, often beyond the purview of WTO and other global institutions. These three tracks—regional, pan-regional, and global—can all contribute to Asia's development if their efforts are strategically selected and complementary.

Asia's broad trade policy framework needs to recognize the primacy of WTO in managing the global trading system, and thus ensure that agreements within Asia are consistent with the letter and spirit of WTO rules. But it is in Asia's interest to go well beyond this minimum and to actively support the deepening of WTO, including by providing leadership to help overcome the deadlock in the Doha Round. Asia—and the world—has a large stake in achieving a "deep" Doha agreement, to produce balanced and ambitious results in agriculture as well as nonagricultural market access, with significant

liberalization and as few excluded sectors as possible. Such an agreement should include progress in services, particularly in areas that affect FDI and international labor mobility; improved rules on contingent protection; clearer provisions for FTAs; and effective trade facilitation.[37] As an eventual Doha deal may take a decade to implement, its ambition must match its long time horizon.

Consolidating regional free trade agreements

In any case, regional approaches will remain useful. Deeper and wider integration may sometimes be more possible bilaterally and regionally than multilaterally. Progress may be possible on a range of issues that are not covered by WTO (including the "Singapore issues" of investment protection,[38] competition policy, transparency, and government procurement) and on policies that extend beyond national treatment to domestic regulation (Dee 2007).

Yet Asia's bilateral and subregional agreements are ripe for consolidation, to reap broader gains and to eliminate some of the distortions that they inevitably cause. If bilateral FTAs involving integrating Asian economies were based on a common template, their proliferation would make consolidation more likely—but, unfortunately, most are not. Meanwhile, the multiplication of bilateral agreements erodes the value of each of them; the benefits to each party are reduced when its partner extends similar privileges to third countries. At the same time, the cost to the private and public sectors of maintaining numerous unconnected agreements rises. All of this makes it increasingly attractive to consolidate smaller agreements into a region-wide FTA (Petri 2006).

How might such regional FTAs be configured? While even a system of bilateral FTAs may have positive welfare effects, economic analysis and intuition both suggest that wider arrangements would bring far larger gains than bilateral or disparate FTAs. An expansion of the area covered by an FTA can also mitigate the harmful "noodle-bowl effect" caused by a tangled web of agreements with overlapping ROORs and varying coverage, not least of services and investment-related provisions. Projections of welfare gains from consolidating FTAs in Asia

[37] See, for example, ADB (2006a) for a complete discussion of these issues.

[38] The "Singapore issues" are so named because, at the WTO Ministerial in Singapore in 1996, four working groups pertaining to these issues were set up. They were taken off the agenda at the Cancún Ministerial in 2003 after protests from some developing countries that these were deemed to be too sensitive. Some progress, however, has been made on trade facilitation.

are discussed in Kawai and Wignaraja (2008). Using a global computable general equilibrium model they show that welfare gains for Asia increase with wider agreements (such as those that are ASEAN+3 or EAS-wide) in comparison with ASEAN+1-type FTAs.

Substantial additional research confirms this. Harrigan et al. (2007) note that large trade areas minimize trade diversion and that creating hub-and-spoke systems that "fail to connect the spokes" is very costly. Kawai and Wignaraja (2008) make a strong case for a single East Asian FTA to reduce the costs associated with overlapping ROORs and other inefficiencies. They find that an EAS arrangement would generate the largest gains, while costs to nonmembers from trade diversion would be small.

Best practices for subregional free trade agreements

The structure of a potential regional FTA is critical. Best practices for FTAs are examined in detail by Plummer (2007) and can be summarized in terms of 10 objectives: (1) comprehensive goods coverage, (2) comprehensive services coverage, (3) low and symmetrical rules of origin, (4) best practices in customs procedures and related measures, (5) strong trade-related intellectual property rights, (6) national treatment of FDI, (7) transparent and fair antidumping procedures and dispute resolution, (8) open and nondiscriminatory government procurement policies, (9) competition policies to create a level playing field, and (10) nondiscriminatory and transparent technical barriers. In effect, the more a regional FTA approximates global free trade, the greater its benefits and the smaller its costs. It should thus aim for the broadest possible coverage and the most far-reaching liberalization, with as little discrimination against nonmembers as feasible.

Using these rules, Plummer (2007) evaluates existing Asian FTAs, scoring them from A (generally conforms to best practices) to C (does not conform and could be inward-looking). Asian FTAs have shortcomings, notably in their ROORs (for accords in which at least one developed country is a signatory) and comprehensiveness (for developing country accords), but are generally more outward-oriented and conform better to best practice rules than FTAs in other regions (Table 3.5).

The issue of FTA design has also attracted considerable attention from APEC and the Pacific Economic Cooperation Council (PECC), which have developed general principles and guidelines.They stress that FTAs should embrace nondiscrimination, comprehensiveness,

Table 3.5. Grading selected free trade agreements involving integrating Asian economies

Free trade agreement	GOODS	SERV	ROO	GOVPRO	COMP	INV	IPR	MON	TBT
ASEAN Free Trade Area	A	C	A-	n.a.	n.a.	A-	n.a.	C	n.a.
India–Singapore Comprehensive Economic Cooperation Agreement	B	B	C	C	C	B+	C	A	A
Japan–Mexico Economic Partnership Agreement	A	B	C	A	A	A	A	A	A
Japan–Singapore Economic Agreement for New-Age Partnership	A	A	C	A	B	A	A	A	B
Republic of Korea–Chile Free Trade Agreement	B	B	C	A	A	A	A	A	A
Republic of Korea–Singapore Free Trade Agreement	B	B+	C	A	A	A	A	A	A
Singapore–Australia Free Trade Agreement	A	A	C	A	A	A	A	A	A
Singapore EFTA–Free Trade Agreement	C	A	C	B+	B	A	A	A	B
Singapore–New Zealand Closer Economic Partnership	A	B	A-	B+	A	A	A	A	A
Singapore–United States Free Trade Agreement	A	A	C	A	A	A	A	A	A
Thailand–United States Free Trade Agreement	A	B	C	B-	A	A	A	A	A

ASEAN = Association of Southeast Asian Nations, EFTA = European Free Trade Association, FTA = free trade agreement, n.a. = not applicable.
Notes:
In column headings, GOODS = trade in goods; SERV = trade in services; ROO = rules of origin; GOVPRO = government procurement (chapter/clauses); COMP = competition (chapter/clauses); INV = provisions for foreign direct investment; IPR = intellectual property protection (WTO Agreement on Trade-Related Aspects of Intellectual Property Rights [TRIPs] plus related conventions); MON = monitoring and dispute settlement provisions; TBT = technical barriers to trade.
Grading assigned by M. Plummer based on (1) consistency with World Trade Organization and outward orientation, (2) best practices, and (3) scope.
Source: Adapted from Plummer 2007.

flexibility, consistency with WTO, transparency, and cooperation. These principles are consistent with the best practice rules discussed previously, and as Scollay (2004) has noted, they are similar to the relevant clauses in the 1994 WTO Understanding on Interpretation of GATT Article XXIV. Unfortunately, there is little international oversight of FTAs, and many agreements—including some in Asia—have not followed best practice requirements.

Recent work by Harrigan, et al. (2007) assesses the benefits of "good practice agreements" in three dimensions: (1) their restrictiveness, (2) the extent to which "spokes" of an FTA hub are connected, and (3) the diversity of the members involved. They characterize differences

using two parameters: the utilization rate (high for good practice FTAs; low for others), and the costs of complying with rules of origin and other requirements. They simulate a number of potential FTA configurations—for example, ASEAN+3 and EAS FTAs are compared with an "ASEAN hub" approach, in which ASEAN has FTAs with each of the three or six partners individually—and find that shallow FTAs yield far smaller gains than good practice arrangements. Again, region-wide FTAs generate the greatest gains. For example, while an ASEAN FTA increases GDP by 0.6%, adding the PRC nearly triples the gains to 1.6%, while an ASEAN+6 agreement boosts the gains by a further 50%. Rather than attempting to stop subregional and regional trade agreements, the thrust of international dialogue ought to shift to fostering broader agreements and to maintaining compatibility with multilateralism.

Investment, infrastructure, and labor

Regional investment agreements could further enhance integration. They reinforce domestic liberalization gains (for example, by ensuring rights to invest) and provide legal security for cross-border investment. Indirectly, their provisions often also protect investment from nonsignatories, and thus stimulate inflows from a wide range of potential partners. Their key features are legal and policy frameworks that make it easier, cheaper, and safer to invest. They have previously been used to develop industrial clusters and special economic zones, but, given Asia's rapid development, they could now be applied more widely. In its November 2002 report to the ASEAN+3 Summit, the East Asia Study Group recommended that East Asia explore expanding the ASEAN Investment Area into an East Asia investment area. Because many of the region's economies are now both important investors as well as host countries, such an agreement could stimulate FDI inflows as well as ensure the safety and productivity of investment outflows.

Infrastructure—transport, communication, and energy links among Asian economies and with regions that are poorly integrated into Asian production chains—is also critical to regional integration. Cost estimates of Asia's needs for new infrastructure by 2015 top $4.7 trillion, much of it to facilitate cross-border connectivity. According to an internal ADB estimate, developing the region's infrastructure will require $4.7 trillion in investment during 2006–2015—$3.1 trillion for new capacity and $1.6 trillion for replacing existing infrastructure. Investment in power and roads would account for about two thirds of total needs. Spurred by their blistering growth, the PRC and India would account for 80% of total investment needs.

Production networks across Asia were initially supported by governments with national economies in mind and typically prioritized links with distant global markets. Fortunately, the ports and airports associated with long-distance trade have also been able to serve intraregional flows. But Asia's regional transport requirements have grown so fast that its logistics is beginning to lag behind its competitors'. Surveys indicate a need not only for additional physical infrastructure, but also for improved processes to ensure the smooth flow of goods, services, and people. These include legal and regulatory frameworks; human and institutional capacities; and trade facilitation measures, such as streamlining customs, transit rules, and other regulations that govern transactions. Regional cooperation is needed—and is emerging—on these issues. Cooperation on infrastructure may not be glamorous, but it is vital.

Last but not least, the economic case for greater labor mobility is also strong, particularly given the region's demographic challenges. While political factors are clearly important, the complements between countries whose populations are ageing and those with rapid population growth are compelling. Migration could raise incomes both in source countries (where wages are relatively low) and in host countries (where migrants complement higher productivity workers). Flows of skilled labor represent the least controversial form of migration. Because such flows are often complementary to FDI, technology transfer, and other important productivity gains, they have already been prioritized in some countries, and some restrictions have been loosened (such as simpler processes for granting visa permits or waiving them altogether for business professionals). The ASEAN Economic Community aims to free up skilled labor flows by 2015, and many ASEAN nationals already benefit from easier access to short-term visas. Some aspects of migration are further explored in Chapter 6.

Supporting deeper integration

Asia's competitiveness is increasingly based on production networks—and, more fundamentally, on the diversity and deepening connections of Asian economies. Improvements in Asian competitiveness, in turn, require open global markets. The region has an overriding stake in sustaining this dynamic. This requires reducing impediments to trade and investment and adopting domestic reforms that facilitate market-led integration. Globally, it requires a continued commitment to open markets and approaches that complement and support WTO. This is why subregional initiatives in ASEAN, for example, explicitly

recognize consistency with the global framework as a foundation for regional and subregional integration efforts.

Global liberalization remains the ideal context for Asian trade, and thus the top priority of the region's integration strategy. Asia now has the leverage to project its commitment to the world trading system in the global policy arena. It could help lead the successful conclusion of the Doha round and continue to foster and strengthen an open, global trading system.

Against the background of slow global progress, however, regional initiatives may also add value, because they may be able to go beyond issues addressed in global negotiations, and because they may accelerate progress among interdependent neighbors. A second priority, therefore, is to pursue regional liberalization on the widest scale possible, consistent with WTO obligations. Even bilateral FTAs, which are less likely to generate significant benefits (and may even have negative results), tend to work positively in actual Asian practice. A third priority, therefore, is to define best practices for regional FTAs, and to pursue their consolidation into a region-wide FTA. These efforts can ensure that the current wave of bilateral initiatives ends in significant gains, rather than a patchwork of inconsistent results.

Support for regional connections needs to go beyond trade. Complementary policies include developing connective infrastructure—such as transport systems that connect poorer regions and the region's poorest subregions to the core of Integrating Asia—and regional cooperation to help upgrade technology. Policies that make international investment easier and safer are also beneficial, especially in the context of production networks. The region's enormous pool of talented workers should have increased opportunities to fill gaps where skills and labor are short, and thus to enhance the productivity of the region as a whole.

These initiatives will require widespread political support. A comprehensive international study of the benefits of creating an Asian economic community could help. The efforts of the East Asian Study Group are an important first step, and its work, which has been carried forward in this report, needs to be continued. Because regional cooperation has broad, dynamic consequences—increased competition, innovation, and productivity growth—its effects are often underestimated. When the momentum of European integration began to flag in the 1980s, a special study known as "The Cost of Non-Europe" (or Cecchini Report) was commissioned. This produced compelling evidence that a single market could boost Europe's output

by as much as 6%, and raise its trend growth rate. Based on careful work by a thoroughly international team, the results were widely circulated and accepted, and the report played a significant role in persuading the public of the urgency of a single market. The benefits of Asian integration could be even greater—and thus deserve similar analytical attention.

Chapter 3: appendix

Table A3.1. World net foreign direct investment flows, 1997–2006 ($ billion)

Economy	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Brunei Darussalam	0.7	0.6	0.7	0.5	0.5	1.0	3.4	0.3	0.3	0.4
Cambodia	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.4	0.5
PRC	45.3	45.5	40.3	40.7	46.9	52.7	53.5	60.6	72.4	69.5
Hong Kong, China	11.4	14.8	24.6	61.9	23.8	9.7	13.6	34.0	33.6	42.9
Japan	3.2	3.2	12.7	8.3	6.2	9.2	6.3	7.8	2.8	(6.5)
India	3.6	2.6	2.2	3.6	5.5	5.6	4.3	5.8	6.7	16.9
Indonesia	4.7	(0.2)	(1.9)	(4.6)	(3.0)	0.1	(0.6)	1.9	8.3	5.6
Korea, Republic of	2.6	5.1	9.9	9.0	4.1	3.4	4.4	9.0	7.0	5.0
Lao PDR	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Malaysia	6.3	2.7	3.9	3.8	0.6	3.2	2.5	4.6	4.0	6.1
Myanmar	0.9	0.7	0.3	0.2	0.2	0.2	0.3	0.3	0.2	0.1
Philippines	1.2	1.8	1.2	2.2	0.2	1.5	0.5	0.7	1.9	2.3
Singapore	13.8	7.3	16.6	16.5	15.6	7.2	11.7	19.8	15.0	24.2
Taipei,China	2.2	0.2	2.9	4.9	4.1	1.4	0.5	1.9	1.6	7.4
Thailand	3.9	7.5	6.1	3.3	5.1	3.3	5.2	5.9	9.0	9.8
Viet Nam	2.6	1.7	1.5	1.3	1.3	1.2	1.5	1.6	2.0	2.3
Integrating Asia	102.7	93.6	121.4	152.0	111.3	100.2	107.1	154.4	165.2	186.6
United States	103.4	174.4	283.4	314.0	159.4	74.5	53.1	135.8	101.0	175.4
European Union	142.4	281.0	502.6	695.2	381.6	307.3	256.7	204.2	486.4	531.0
World	489.2	709.3	1,098.9	1,411.4	832.6	622.0	564.1	742.1	945.8	1,305.9

FDI = foreign direct investment, Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China.
European Union includes the 25 countries that were members as of 2006.
Source: UNCTAD various years. FDI Statistics Online. Available: http://stats.unctad.org/fdi/ReportFolders/ReportFolders.aspx?CS_referer=&CS_ChosenLang=en (accessed April 2008).

Table A3.2. Diversity in business policy in Integrating Asia: Global rankings of private sector efficiency, 2007

Economy	Overall rank	Ease of doing business				
		Starting a business	Protecting investors	Dealing with licenses	Paying taxes	Employing workers
Brunei Darussalam	78	117	121	66	28	4
Cambodia	145	162	64	144	21	133
China, People's Republic of	83	135	83	175	168	86
Hong Kong, China	4	13	3	60	3	23
Japan	12	44	12	32	105	17
India	120	111	33	134	165	85
Indonesia	123	168	51	99	110	153
Korea, Republic of	30	110	64	22	106	131
Lao People's Dem. Rep.	164	78	176	111	114	82
Malaysia	24	74	4	105	56	43
Philippines	133	144	141	77	126	122
Singapore	1	9	2	5	2	1
Taipei,China	50	103	64	128	91	148
Thailand	15	36	33	12	89	49
Vietnam	91	97	165	63	128	84

Note: Economies are ranked on their ease of doing business, from 1 to 178, with first place being the best. A high ranking on the ease of doing business index means the regulatory environment is conducive to business. This index averages the country's percentile rankings on 10 topics, using a variety of indicators and giving equal weight to each topic.
Source: World Bank 2008a. Doing Business Report 2008. Available: http://www.doingbusiness.org/economyrankings (accessed April 2008).

	Ease of doing business				
	Trading across borders	Registering property	Enforcing contracts	Getting credit	Closing a business
	36	178	158	97	35
	139	98	134	177	178
	42	29	20	84	57
	3	58	1	2	15
	18	48	21	13	1
	79	112	177	36	137
	41	121	141	68	136
	13	68	10	36	11
	158	149	111	170	178
	21	67	63	3	54
	57	86	113	97	147
	1	13	4	7	2
	29	24	92	48	13
	50	20	26	36	44
	63	38	40	48	121

Table A3.3. Status of free trade agreements involving integrating Asian economies

Integrating Asia's total free trade agreements as of December 2007	Concluded	Under negotiation	Proposed	of which	
				Inside IA	Outside IA
ASEAN Free Trade Area (1)	✓			✓	
ASEAN-Australia and New Zealand Free Trade Agreement	✓			✓	
ASEAN-China Comprehensive Economic Cooperation Agreement	✓			✓	
ASEAN-European Union Free Trade Agreement		✓			✓
ASEAN-India Regional Trade and Investment Area			✓		✓
ASEAN-Japan Comprehensive Economic Partnership			✓		✓
ASEAN-Korea Comprehensive Economic Cooperation Agreement		✓			✓
Asia-Pacific Trade Agreement (2)	✓				✓
Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation Free Trade Area (3)			✓		✓
East Asia Free Trade Area (4)			✓	✓	
East Asia Summit Free Trade Area (5)			✓		✓
Preferential Tariff Arrangement-Group of Eight Developing Countries (6)	✓				✓
Shanghai Cooperation Organization Free Trade Agreement (7)			✓		✓
South Asian Free Trade Area (8)	✓				✓
Trade Preferential System of the Organization of the Islamic Conf. (9)		✓			✓
Trans-Pacific Strategic Economic Partnership Agreement (10)	✓				✓
Brunei Darussalam-Japan Free Trade Agreement	✓			✓	
Brunei Darussalam-Pakistan Free Trade Agreement			✓		✓
Brunei Darussalam-United States Free Trade Agreement			✓		✓
Hong Kong-New Zealand Closer Economic Partnership		✓			✓
Hong Kong-People's Republic of China Closer Economic Partnership Arrangement	✓			✓	
India-Afghanistan Preferential Trading Agreement	✓				✓
India-Australia Free Trade Agreement			✓		✓
India-Chile Preferential Trading Agreement	✓				✓
India-Colombia Preferential Trading Arrangement			✓		✓
India-Egypt Preferential Trade Agreement		✓			✓
India-European Free Trade Association Free Trade Agreement			✓		✓
India-European Union Free Trade Agreement		✓			✓
India-Gulf Cooperation Council Free Trade Area		✓			✓
India-Japan Economic Partnership Agreement		✓		✓	
India-Indonesia Comprehensive Economic Cooperation Arrangement		✓	✓		
India-Israel Preferential Trade Agreement			✓		✓
India-Korea Comprehensive Economic Partnership Agreement		✓		✓	
India-Malaysia Comprehensive Economic Cooperation Agreement		✓	✓	✓	
India-Mauritius Comprehensive Economic Cooperation and Partnership Agreement	✓			✓	

Integrating Asia's total free trade agreements as of December 2007	Concluded	Under negotiation	Proposed	of which	
				Inside IA	Outside IA
India-MERCOSUR Preferential Trade Agreement	✓				✓
India-Nepal Treaty of Trade	✓				✓
India-New Zealand Free Trade Agreement			✓		✓
India-People's Republic of China Regional Trading Arrangement			✓	✓	
India-Russian Federation Comprehensive Economic Cooperation Agreement			✓		✓
India-Singapore Comprehensive Economic Cooperation Agreement	✓			✓	
India-Southern African Customs Union Preferential Trade Agreement		✓			✓
India-Sri Lanka Free Trade Agreement	✓				✓
India-Thailand Free Trade Area		✓		✓	
India-Uruguay Preferential Trading Arrangement			✓		✓
India-Venezuela Preferential Trading Arrangement			✓		✓
Indonesia-Australia Free Trade Agreement			✓		✓
Indonesia-European Free Trade Association Free Trade Agreement			✓		✓
Indonesia-Japan Economic Partnership Agreement	✓			✓	
Indonesia-Pakistan Free Trade Agreement		✓			✓
Indonesia-United States Free Trade Agreement			✓		✓
Japan-Australia Economic Partnership Agreement		✓			✓
Japan-Canada Free Trade Agreement			✓		✓
Japan-Chile Economic Partnership Agreement	✓				✓
Japan-Gulf Cooperation Council Free Trade Agreement		✓			✓
Japan-Korea Free Trade Agreement		✓		✓	
Japan-Malaysia Economic Partnership Agreement	✓			✓	
Japan-Mexico Economic Partnership Agreement	✓				✓
Japan-Korea-People's Republic of China Free Trade Agreement			✓	✓	
Japan-Philippines Economic Partnership Agreement		✓			✓
Japan-Singapore Economic Agreement for a New-Age Partnership	✓			✓	
Japan-Switzerland Economic Partnership Agreement		✓			✓
Japan-Thailand Economic Partnership Agreement	✓			✓	
Japan-Vietnam Economic Partnership Agreement		✓		✓	
Korea-Australia Free Trade Agreement			✓		✓
Korea-Canada Free Trade Agreement		✓			✓
Korea-Chile Free Trade Agreement	✓				✓
Korea-European Free Trade Association Free Trade Agreement	✓				✓
Korea-European Union Free Trade Agreement		✓			✓
Korea-Gulf Cooperation Council Free Trade Agreement			✓		✓
Korea-Malaysia Free Trade Agreement			✓	✓	
Korea-MERCOSUR Preferential Trading Agreement			✓		✓

Table A3.3. continued.

Integrating Asia's total free trade agreements as of December 2007	Concluded	Under negotiation	Proposed	of which	
				Inside IA	Outside IA
Korea-Mexico Strategic Economic Complementation Agreement		✓			✓
Korea-New Zealand Closer Economic Partnership			✓		✓
Korea-People's Republic of China Free Trade Agreement			✓	✓	
Korea-Singapore Free Trade Agreement	✓			✓	
Korea-South Africa Free Trade Agreement			✓		✓
Korea-Thailand Free Trade Agreement			✓	✓	
Korea-United States Free Trade Agreement	✓				✓
Laos-Thailand Preferential Trading Arrangement	✓			✓	
Malaysia-Australia Free Trade Agreement		✓			✓
People's Republic of China-Gulf Cooperation Council Free Trade Agreement	✓			✓	
People's Republic of China-Iceland Free Trade Agreement		✓			✓
People's Republic of China-Macao Closer Economic Partnership Arrangement	✓			✓	
People's Republic of China-New Zealand Free Trade Agreement		✓			✓
People's Republic of China-Norway Free Trade Agreement			✓		✓
People's Republic of China-Pakistan Free Trade Agreement	✓				✓
People's Republic of China-Peru Free Trade Agreement			✓		✓
People's Republic of China-Singapore Free Trade Agreement		✓		✓	
People's Republic of China-South Africa Free Trade Agreement			✓		✓
People's Republic of China-South African Customs Union Free Trade Agreement	✓			✓	
People's Republic of China-Thailand Free Trade Agreement	✓			✓	
Philippines-Pakistan Free Trade Agreement			✓		✓
Philippines-United States Free Trade Agreement			✓		✓
Singapore-Australia Free Trade Agreement	✓				✓
Singapore-Bahrain Free Trade Agreement			✓		✓
Singapore-Canada Free Trade Agreement		✓			✓
Singapore-Egypt Comprehensive Economic Cooperation Agreement		✓			✓
Singapore-European Free Trade Association	✓				✓
Singapore-Gulf Cooperation Council Free Trade Agreement		✓			✓
Singapore-Jordan Free Trade Agreement	✓				✓
Singapore-Kuwait Free Trade Agreement		✓			✓
Singapore-Mexico Free Trade Agreement		✓			✓
Singapore-New Zealand Closer Economic Partnership	✓				✓
Singapore-Pakistan Free Trade Agreement		✓			✓
Singapore-Panama Free Trade Agreement	✓				✓
Singapore-Peru Free Trade Agreement		✓			✓

Integrating Asia's total free trade agreements as of December 2007	Concluded	Under negotiation	Proposed	of which	
				Inside IA	Outside IA
Singapore-Qatar Free Trade Agreement	✓			✓	
Singapore-Sri Lanka Comprehensive Economic Partnership Agreement			✓		✓
Singapore-Ukraine Free Trade Agreement	✓			✓	
Singapore-United Arab Emirates Free Trade Agreement			✓		✓
Singapore-United States Free Trade Agreement	✓				✓
Taipei,China-Dominican Republic Free Trade Agreement		✓			✓
Taipei,China-El Salvador-Honduras Free Trade Agreement	✓				✓
Taipei,China-Guatemala Free Trade Agreement	✓				✓
Taipei,China-Nicaragua Free Trade Agreement	✓				✓
Taipei,China-Panama Free Trade Agreement	✓				✓
Taipei,China-Paraguay Free Trade Agreement		✓			✓
Taipei,China-United States Free Trade Agreement		✓		✓	
Thailand-Australia Free Trade Agreement	✓				✓
Thailand-Bahrain Free Trade Agreement		✓			✓
Thailand-Chile Free Trade Agreement			✓		✓
Thailand-European Free Trade Association Free Trade Agreement		✓			✓
Thailand-MERCOSUR Free Trade Agreement			✓		✓
Thailand-New Zealand Closer Economic Partnership Agreement	✓				✓
Thailand-Pakistan Free Trade Agreement			✓		✓
Thailand-Peru Free Trade Agreement		✓			✓
Thailand-United States Free Trade Agreement		✓			✓

MERCOSUR = Southern Common Market: includes Argentina, Brazil, Paraguay, and Uruguay.
Notes:
(1) ASEAN Free Trade Area members include Brunei Darussalam, Cambodia, Indonesia, Lao People's Democratic Republic (Lao PDR), Malaysia, Myanmar, Philippines, Singapore, Thailand, and Viet Nam.
(2) Asia-Pacific Trade Agreement members include Bangladesh, People's Republic of China (PRC), India, Republic of Korea, Lao PDR, and Sri Lanka.
(3) Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation Free Trade Area member countries include Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka, and Thailand.
(4) East Asia Free Trade Area members include all the ASEAN countries plus the PRC, Japan, and Republic of Korea (i.e., ASEAN+3).
(5) East Asia Summit Free Trade Area members include all ASEAN+3 countries plus Australia, India, and New Zealand.
(6) Preferential Tariff Arrangement–Group of Eight developing countries' members include Bangladesh, Egypt, Indonesia, Islamic Republic of Iran, Malaysia, Nigeria, Pakistan, and Turkey.
(7) Shanghai Cooperation Organization Free Trade Agreement members include the PRC, Kazakhstan, Kyrgyz Republic, Russian Federation, Tajikistan, and Uzbekistan.
(8) South Asian Free Trade Area members include Bhutan, Bangladesh, India, Maldives, Nepal, Pakistan, and Sri Lanka.
(9) Trade Preferential System of the Organization of the Islamic Conference members include Bahrain, Bangladesh, Cameroon, Egypt, Guinea, Islamic Republic of Iran, Jordan, Lebanon, Libyan Arab Jamahiriya, Malaysia, Pakistan, Senegal, Syrian Arab Republic, Tunisia, Turkey, Uganda, and United Arab Emirates.
(10) Trans-Pacific Strategic Economic Partnership Agreement members include Brunei Darussalam, Chile, New Zealand, and Singapore.
Source: Data from Asia Regional Integration Center. ADB. Available: http//www.aric.adb.org (accessed March 2008).