

China's Trade with East Asia: Impact on Regional Trade Integration³

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1. Introduction

China's foreign trade grew by leaps and bounds after China adopted market-oriented reforms in the late seventies. Today, China's trade is the largest in the world. It played a critical role in the transformation of China's economy and has become a driving force in the global economy. In the last couple of decades, trade with the East Asian region in particular grew faster than trade with any other region in the world. As China-East Asia trade grew, its pattern and structure also changed as it took a key role in the industrial production networks in the region. This development has resulted in China becoming the center of trade relations in the region, displacing Japan, which for decades played the dominant role in East Asian trade.

This paper examines China's role in East Asian regional trade integration, as well as the underlying basis for the rapid rate of integration, by analyzing the patterns and structures of China's trade with the countries in the region. The paper covers essentially the period from 1997 to 2007. The developments from 2008 to 2010 are discussed in the last section.

³ The two main sources of data for this study were: the IMF's *Direction of Trade Statistics* (DOTS) and the United Nations COMTRADE (Commodity Trade Statistics) database. Data on Taiwan's exports and imports were derived from Taiwan's Bureau of Foreign Trade. Exports and imports of the other countries to and from Taiwan were derived from the UN COMTRADE.

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China's main trading partners immediately after it opened up were the developed and industrialized countries. In the East Asian region, its top trading partners were Japan, Hong Kong, Korea, Singapore, and Taiwan (the latter 4 known as newly industrialized economies—NIES). Except for Hong Kong, Japan and the other NIEs provided China with the capital goods and technology China needed for its industrialization. In exchange, China exported food and other resources as well as simple manufactured consumer goods. Hong Kong played the role of intermediary for China with the rest of the world, although this role became less important after Hong Kong was returned to China in 1997.

The ASEAN countries (except for Singapore) were not important trade partners of China in the early days of reform. Bilateral trade between China and the individual countries was small both in value and as a share of China's total trade (just between 1% and 2%). As developing countries, China and the ASEAN countries traded mostly with developed countries. In fact, the ASEAN countries considered China a fierce competitor. However, data show that China's growth during this period was a catalyst for the growth of the region in the eighties (Palanca 2001b).

Trade between China and the ASEAN countries evolved from trade in primary products such as food and crude materials to trade in manufactured goods, with machines and office equipment constituting the bulk of trade, even as petroleum and mineral products necessary for industrial growth became major imports of China. In the early eighties, bilateral trade reflected inter-industry exchanges. By the nineties, due to cross-border regional production networks, intra-industry exchanges had dominated China's trade with the ASEAN countries.

For the period 1997-2007, Japan and the NIEs continued to play important roles in China's industrial growth, providing China with intermediate goods and machinery for its domestic industries. Much of the input imports for industrialization had been made through massive foreign direct investments. However, since 2000, China has slowly taken over the production of the intermediate products it had been importing.

With its growing economic weight, China was able to play a greater political role in the region. The slowdown of Japan's economy since 1990 made it easier for China to do so. The Asian financial crisis in 1998 lent China an opportunity to strengthen its engagement with countries in Southeast Asia. It extended aid to some of the affected countries and helped control the crisis by not engaging in competitive devaluation. During this time, China proposed a China-ASEAN FTA and helped in the formation of the ASEAN+3, within whose framework China initiated bond swaps in the so-called Chiangmai Initiative.

Today, finished goods still dominate China's exports to East Asia, although the percentage is declining. On the other hand, China's consumer market presents many opportunities to all its trading partners. Aside from the rapid rise in the income of the Chinese, China has opened many of its commodities and services markets since joining the WTO.

The last section of this essay deals with the developments during the period 2008-2010. The global economic turbulence since 2008 has affected countries all over the world. China's exports, which had been growing at rates between 20% and 30% annually for the period from 1990 to 2008, were seriously affected by the negative growth of the US and European countries in 2008 and 2009. In 2009, the volume of China's trade to developed countries fell for the first time since 1990. Exports fell by 13% while imports declined by 2.7%. Being highly correlated with China's trade, the trade of many East Asian countries also contracted. Such effect demonstrates the extent of production networking in the region, as can be seen from the changes in the pattern of regional trade.

2. Structure and pattern of China's trade with the world

China's trade increased tremendously after its accession to the WTO in 2001. Except for one year, the world's so-called manufacturing machine also enjoyed a merchandise trade surplus every year from 1992, with the surplus sharply increasing after 2005 (see Chart 5).

2.1 Trade by product classification

Between 1992 and 2007, China's relative demand (imports) for raw materials and finished goods increased, with demand for raw materials increasing faster than finished goods. Demand for intermediate goods fell and demand for capital goods hovered at 40%, reaching nearly 50% in some years. The composition of exports shifted from finished goods to capital goods.

China had a net surplus for finished goods in all years. For capital goods and intermediate goods (except chemicals), there was a deficit until 2002, with a growing surplus thereafter. The deficit for raw materials grew faster after 2002.

2.1.1 Final goods

China's exports consisted mostly of final goods—clothing, toys, footwear. Finished goods in fact contributed the most to the trade surplus. But there were signs that this was not going to be a permanent situation. From 32.6% in 1992, the contribution of finished goods to China's total trade surplus fell to only 23.8% in 2007.

While exports of finished goods grew an average of 14% annually, the share of finished goods exports to total exports fell from 52% in 1992 to 30% in 2007. At the same time, imports of finished goods grew an average of 17% annually in the same period, with the share to total imports rising from 12% to 15%. This reflected the higher demand for consumer goods due to the higher income of the Chinese as well as the easier access to China's markets.

Most of the trade in finished goods fall under two groupings in the WTO classification: clothing, and other manufactures, namely personal and household goods (furniture, bedding, mattresses, cushions; travel goods, handbags; footwear); scientific and controlling instruments; and miscellaneous goods (prefab, plumbing, fixtures and fittings; photographic apparatus, optical goods, watches and clocks).

The share of clothing in exports fell faster than the share of other manufactures, but China was also importing very little clothing. The demand for imported finished products in China was for other manufactures, specifically liquid crystal devices and lasers. There was also a

notable rise in imports of food, with soya beans being the single largest item. At the same time, food items as a share of exports declined significantly, from 11.3% in 1992 to 2.2% in 2007.

There was a surplus in all of the subcategories under finished goods throughout the period, except in special transactions which was in deficit until later in the period. Another trend was the shrinking surplus in food. But these trends were overshadowed by the trends in clothing and other manufactures.

2.1.2 Raw materials

China was a net importer of raw materials throughout the period, and the deficit was in fact increasing together with the overall increase in trade. The share of raw materials in total trade was 12.6% in 2007, not too far from the 11.8% in 1992. However, it must be noted (Charts 6B & C) that the share of raw materials in China's total exports had been falling steadily from around 10% to 3%. Its share in imports on the other hand increased from about 14% to 26% .

The figures on trade in raw materials reflect the relative scarcity of natural resources in China, specifically of fuels and mining products. Due to the rapid pace of its industrialization, China's raw materials demand was primarily for fuels and mining products, the share of which in total trade increased from 9.2% in 1992 to 22.1% in 2007. This was in contrast to non-fuel/mining raw materials, the share of which fell from 4.9% to only 3.8%.

2.1.3 Intermediate goods

The trade in intermediate goods reflected both the needs of the cross-national production networks as well as the country's own ordinary domestic production. China's trade in intermediate goods was significant but its share in total trade declined, from 29.1% in 1992 to 20.4% in 2007, due largely to the declining share of imports. China's exports of intermediate goods fell only slightly, from 23% in 1992 to 21% of total in 2007. The decline in intermediate goods imports was from 35% in 1992 to 19% in 2007.

In 2007, China imported \$176 billion and exported \$258 billion of intermediate goods, ending the year with a net surplus of \$90 billion.

Our classification of intermediate goods includes four items: iron and steel products, chemicals, semi-manufactures, and textiles. These represent a wide range of industries, and quite different trends could be observed (see Table 1). These were most of the products under categories 5 and 6 in the SITC3 code.

Textiles and semi-manufactures had been China's traditional exports, and China continued to be a net exporter of these products. However, textile exports grew less important over time. Trade in textiles used to be 9.8% of total trade in 1992; in 2007, it was only 3.3%. From being the largest component of intermediate goods, it became one of the smallest, with both exports and imports falling as a share of total, with imports falling much faster.

The share of semi-manufactures in imports also fell, but unlike textiles, its share in exports rose between 1992 and 1997 and remained more or less stable thereafter. And the relative importance of semi-manufactures in China's total trade did not fall as much as that of textiles, which fell mainly because of the large drop in its share in imports. In 1992 semi-manufactures accounted for 6.5% of total trade while textiles accounted for 9.8%. In 2007, the share of semi-manufactures was 5.8%, while the share of textiles dropped to 3.3%. This indicated the increased diversification of China's exports as well as the greater integration of industries. It meant that China was relying less on importation of semi-manufactures for its industrial needs and was even exporting more of them.

Iron and steel was another category of intermediate goods which China imported before but was now producing on its own. In fact, the steel industry was experiencing excess capacity in the latter years. Iron and steel was the smallest component of trade in intermediate goods, contributing 3.5% of total trade in 1992 and remaining constant up to 2007 at 3.4%. However, the distribution between exports and imports of this category of intermediate goods changed over time. Its share in China's total exports started to pick up in 2004, and the balance turned positive in 2006. In the case of textiles, which had long been an export industry, its share in both total exports and imports declined. The development both of the iron and steel industry and the intermediate goods industries were signs of China's increasing industrial vigor and growing vertical integration of industry.

Of the major classifications we use, trade in chemical products was the most significant at 39% of intermediate goods trade. During the entire period, chemical products dominated China's trade in intermediate goods, with the share growing from 40% in 1992 to 53% in 2002 and reaching a whopping 63% in 2007. The shares of iron and steel, semi-manufactures, and textiles declined significantly so that China's intermediate goods imports in the latter part of the period were mostly chemical products.

Appendix 2 lists the total trade in 2007 for each component of intermediate goods by SITC code at the 3-digit level. It shows China's top 10 imports and exports of intermediate products. Most were various forms of plastics which have a wide range of applications. China possesses very little of the raw materials for these and some involve proprietary processes. The major export items were the more traditional metals and textiles. This confirms Cui and Syed's (2007) proposition that China had moved up the value chain from traditional assembly operations. The data also showed a slowing down in China's importation of intermediate goods in general (Table 10B).

Regarding exports, other products in the list of top 10 intermediate goods exports aside from textiles and iron and steel products were metal and rubber products. They partly accounted for the fast growth of China's imports of raw materials (Table 2).

2.1.4 Capital goods

Capital goods was the fastest growing import and was the largest component of China's imports in 2007 (Table 3). It is not surprising that China, being a developing country, has a relative scarcity of capital goods. Its demand for imported capital goods remained strong throughout the period. The share of capital goods rose from 26.6% of China's total trade in 1992 to 43.1% in 2007.

The most interesting development was the rapid increase in capital goods exports. From being a net importer, China became a net exporter beginning in 2004 (taking reimports into account). Capital goods include products under category 7 in the SITC3 code—machinery and transport equipment. There are three broad subcategories: 1) office and telecommunications equipment, 2) transport equipment,

and 3) other machinery. It was exports of office and telecommunications equipment, the sector involving IT, that increased the fastest in the latter part of the period.

The share of capital goods increased rapidly and became the largest component of exports by value at 39% in 2002. The share rose steadily afterwards, peaking at 48% in 2006 before falling slightly to 46% in 2007.

Capital goods were also a major component of imports by value at 40% in 2007. With export volumes far in excess of imports, China was a net exporter of both capital and intermediate goods by 2002, unlike in 1997 when it was a net importer.

China started reporting surpluses in office and telecommunications equipment as early as 1995. At the time, the volume of trade in this sub-sector was still dominated by trade in other machineries. By 1998, China's trade in office and telecommunications equipment was higher than its trade in other machineries, but the surplus still did not manage to offset the deficit in other machineries until 2002. By 2005, China was a net exporter in all three components of capital goods. Data for 2007 showed that the surplus for this product group was due to trade in office and telecommunications equipment. Trade in transport equipment and other machineries was essentially balanced.

While the shares of trade in other machineries and in transport equipment were roughly unchanged between 1992 and 2007 at about 14% and 5%, respectively, the share of office and telecommunications equipment went up from 7.1% in 1992 to 24.1% in 2007.

Office and telecommunications equipment can be further broken down into three categories: EDP and office equipment (codes 751, 752, 759), telecommunications equipment (codes 761, 762, 763, 764), and integrated circuits (IC) and electronic components (code 776). China's trade was spread out over these three categories: 37%, 30% and 33%, respectively. However, China was a net exporter of EDP and office equipment and of telecommunications equipment, but was a net importer of IC and electronic components.

In 1992, China was importing predominantly telecommunications equipment. But even then, it was beginning to export more than it was importing. Exports of EDP and office equipment also grew very

fast. China was already a net exporter of both EDP/office equipment and telecommunications equipment starting in 1995. Of the higher-valued IC and electronic components it exported relatively little and it remained a huge importer. Product 776 (transistors and valves) comprised 36% of its total imports of capital goods in 2007.

2.2 Ordinary vs. processing trade, re-imports

When it opened up in 1978, China adopted an export-oriented development strategy which was heavily dependent on foreign capital and technology. Hence much of its trade was connected to contract manufacturing activities of foreign enterprises. To distinguish this type of manufacturing from the ordinary type, China classifies its exports and imports data into ordinary and processing categories. Processing imports are those imports used in manufacturing under contract with multinationals or enterprises with foreign investments. The products of such activities are generally for export and thus are classified as processing exports.

Table 11 presents China's total exports and imports from 1992 to 2006 broken down into ordinary and processing, while Table 12 {A to H} shows such classification by major industries, for both values and shares. The data are based on Feenstra and Wei's (2009) study, which provides detailed data on such classification of China's trade.

The same trends can be observed in China's exports and imports even if the data are disaggregated into ordinary and processing trade. For example, both processing and ordinary exports of machinery and electrical as an industry were increasing (the share of processing exports rose from 22% in 1992 to 63% in 2006 while the share of ordinary exports rose from 6% to 18% during the same period). Also, ordinary minerals and wood (raw materials) imports made up the largest share in ordinary imports, increasing from 16% in 1992 to 35% in 2006; but its share in ordinary exports as well as in processing exports and imports declined. For intermediate goods, the share of chemicals and plastics was stable in exports (both ordinary and processing), but significantly decreased in imports, especially in processing imports. Textiles, considered both as finished and intermediate product as clothing items were most likely included here, had the largest share

in ordinary exports. For both textiles and footwear, their shares in processing imports fell significantly, implying lesser reliance on foreign capital and technology for their production.

The office machinery and electronics sector, the main category in the capital goods trade, was the industry that contributed most to China's phenomenal growth in trade. Its robust growth explained much of the recent changes in China's trade structure, although this was by no means the only important development. The products under this sector comprised the biggest share in processing exports and processing imports, which was evidence of the cross-border production network phenomenon in this industry. They also had the largest share increase in ordinary exports. However, the share in ordinary imports for this category declined, which means that local production had substituted for ordinary imports of such products.

Another peculiarity of China's trade data was the classification of "re-imports." Again we see that this was production networking, but not with another country, but with multinationals operating in China. Since 2000, China has been reporting re-imports in the UN COMTRADE (Commodity Trade Statistics) database. For China, such data could generally be assigned to imports from the special economic zones. China's re-imports had been growing. When considered against the total trade volume of the country, it appeared to be insignificant (compare Charts 4A and 4B). However, in relation to its trade balance, it was quite substantial (Chart 5). This was even more evident when juxtaposed against the trade balance with East Asia (Charts 7A and 7B).

Over 60% of China's re-imports were products in the capital goods category (Table 10D and Chart 6D).

3. China's role in East Asian intra-regional trade

3.1 East Asian trade and industrialization paradigm

The WTO's 2008 *International Trade Statistics* indicated that intra-regional trade in both East Asia and in North America were at the 50% level. Only Europe had a higher intra-regional trade share at 74%. This was evidence that East Asia had been rapidly integrating

in terms of trade. In this section we look at regional trade within East Asia and in particular at the pattern of this trade over time in relation to China's trade and economic growth.

The "flying geese" model, developed by Kaname Akamatsu (1936), described the pattern of hierarchical economic integration that arose in East Asia after the Second World War. The flying geese development model described how Japan after it industrialized became the economic leader in the region since the beginning of the 20th century. As Japan went up the technology ladder, it gave up production based on older technologies to other countries by building production bases throughout East Asia using trade and investments. The relatively most advanced technologies went to the first tier NIEs (Hong Kong, Singapore, South Korea, and Taiwan), followed by the second tier NIEs (Malaysia and Thailand), and then by the emerging NIEs (Indonesia, the Philippines, and Viet Nam). The less developed countries (Cambodia, Myanmar, and Laos) were at the tail end of the flying geese formation.

China's position in this economic hierarchy is difficult to determine. In the eighties, China was definitely at the tail end of the East Asian flying geese formation. Although the development of the region continued to follow to a great extent the flying geese model, China seemed to be disrupting the pattern. Starting from a low base, China was able to broaden and develop its industrial sector by using its vast supply of cheap labor and by focusing on innovation. It would soon be able to manufacture products ranging from cheap labor-intensive ones to high-tech capital-intensive ones. Except for those products the parts of which were manufactured in different countries, the products of China were competing with the products of many East Asian countries in third country markets.

Because of its active role in the world economy, China became a catalyst in the spread of industrial development across East Asia, where trade and investments had intensified regional integration. Regional industrialization and integration in East Asia followed both the flying geese development model and the global production network phenomenon.

At the same time, global production networks also defined East Asian industrialization for more than two decades. Within the region, production of many products was segmented, i.e., different countries produced different components of one product. Electronics products are a prominent example, the production of which depended on foreign direct investments, from the region or outside, which helped to create intra-regional networking and trade. The international segmentation production process of multinationals and other investing firms enhanced the production sharing operations in East Asia. The market for these products was outside the region. Japan, for example, provided one-third of all regional exports of components for assembly (Ng and Yeats 2003). The first-tier newly industrialized economies were also providers of capital and technology (machinery and equipment) in the production process while the other countries produced other components and parts. The workshop where the components and parts were assembled in such a segmented production process was labor-abundant China.

The overlap of the flying geese system and the global production networks was the factor behind the vibrant trade and the continuous economic growth of the region. The production of a product was no longer confined to one country; instead the production of the components was distributed among several countries. And because of its cheap labor, China became a central player as the assembly point in the multiplying global production networks involving many countries, most of which were in East Asia. Following the flying geese model, Japan and the NIEs provided the capital and technology, while the ASEAN countries provided the other parts and components in the production process. This distribution of functions created efficiency and growth throughout the region. China, as the central player in the global production process, significantly contributed to East Asian intra-regional trade. China's economic growth created a synergy and raised economic growth everywhere in the region. Moreover, the export market of the East Asian countries (except China) shifted from the US to China while China also displaced the NIEs as the global export market of finished goods. It was therefore not surprising that although China was the main destination of foreign investments,

the pattern of investment inflows received by the ASEAN countries followed that of China (Lo 2003).

3.2 East Asian intra-regional trade, 1990-2007

East Asian trade grew between 1990 and 2007 (Table 4 & Chart 1), with the rate of growth picking up rapidly from 2004 onwards. Intra-regional trade also grew, peaking at 53.6% in 2004. The exponential growth in the total trade of East Asia after 2004 meant that the share of intra-regional trade, whose growth was less than the growth of total trade, declined.

While total trade grew rapidly between 1990 and 2007, there were dips in 1998 because of the Asian financial crisis and in 2001 because of the bursting of the bubble in the US dotcom industry at the turn of the century. In 1998, the share of intra-regional trade in total trade declined significantly as the financial crisis was exclusive to the region. In 2001, the mild recession in the US affected Asian trade, but did not affect much the share of intra-regional trade.

Tables 2 and 3 show the network of trade (in values and shares) within East Asia for 2007 and for 2002, respectively. During this period, trade more than doubled but the share of intra-regional trade was stagnant at a little above 50% for the group as a whole. For each of the countries, East Asian trade accounted for over 50% of total trade in 2007, except for Japan, Korea, and China. China had the lowest East Asian trade share at 42%—which was still quite high, although the bulk of this was with the Northeast Asian countries. There appeared to have been little change overall then in intra-regional trade in the last five years of the period but a closer look at the individual countries would reveal shifts in the trade patterns within East Asia, even within this short period.

3.2.1 China in East Asian regional trade

ASEAN accounted for 9% of China's trade in 2007, the same in 2002, while China's share in the trade of ASEAN countries as a group was 12%, up from 6% in 2002 (Tables 2 & 3). This meant that the importance of ASEAN to China in terms of trade was unchanged during this five-year period while China grew in importance for

ASEAN. For the Philippines in particular, China accounted for 20% of trade in 2007 whereas it was only 4% in 2002. This was one of the biggest shifts although the trend was representative for all ASEAN countries except Brunei.

The same trend held for the Northeast Asian countries. In 2007, China accounted for about 25% of the total trade of Japan, Korea, Hong Kong, and Taiwan combined, up from 19% in 2002. For China, trade with these countries in 2007 was 33% of total, down from 41% in 2002.

Table 7 shows that while China's trade with East Asia grew phenomenally, the share fell from 62% in 1992 to 42% in 2007. This reflected both China's opening up to the world during this period and the rapid increase in its overall trade. For all the other countries, the East Asian share in trade increased. Exceptions were Malaysia where East Asian share remained roughly the same, and Viet Nam where East Asian trade share was higher during the intervening periods.

For Japan, Korea, Viet Nam, and Cambodia, ASEAN's share in their total trade with East Asia declined. Countries whose share remained more or less the same were Hong Kong, Taiwan, and Malaysia. China and most of the ASEAN countries increased dramatically. In particular, the share of China's trade with ASEAN in its East Asian trade grew from 9% in 1992 to 22% in 2007. We saw that China's share in ASEAN total trade grew spectacularly. It seemed that much of the growth of intra-East Asian trade could be attributed to the growing dependence between China and ASEAN. Growing Southeast Asian regional interdependence was also revealed in the significant increase in the share of ASEAN in the East Asian trade of most ASEAN countries. The ASEAN Free Trade Agreement signed in 1992 and the many related protocols that followed contributed to the strengthening of intra-regional trade among the member nations.

Intra-regional trade grew at around 11% annually from 1990 to 2007, and China's share in this trade rose from 12% in 1990 to 25% in 2007 (see Table 8 and Chart 3). Starting in 2003, China accounted for the biggest share of East Asian intra-regional trade. But the share of East Asia in China's total trade steadily declined from 59% in 1990

to 42% in 2007 because of the spectacular growth (at 15% annually) of China's total trade during this period.

Only ASEAN as a group had a higher share than China in East Asian intra-regional trade, at a constant 28% for the entire period, with Indonesia, Malaysia, and Thailand each having around 4-5%, while the Philippines and Viet Nam accounted for 2% each.

Singapore's share at 10% was the biggest, which meant that Singapore accounted for over a third of ASEAN's trade with East Asia. The shares of Singapore, Taiwan, and Korea in East Asian intra-regional trade were fairly constant at around 10%. The share of Hong Kong, another NIE, had always been higher, although declining—from 17% in 1990 to 14% in 2007.

The share of Japan, the region's largest economy, declined steadily from 26% in 1990 to 16% in 2007, due mainly to the rapid increase in China's share. China obviously had a significant role in the rising trade volumes within East Asia. In Table 8A we observe that for all 15 countries in the region, the share of Japan decreased while that of China increased dramatically.

3.2.2 East Asian countries in China's trade

Table 9 shows that a significant portion of China's total trade was with East Asia, but the share of East Asia was declining as China's trade with the rest of the world was rising faster (see Chart 4). Within the region, Japan accounted for the largest share, reaching a peak of 37% in 1995 and gradually declining to 26% in 2007. Among the NIEs, trade volumes with Korea and Taiwan increased since the beginning of bilateral trade, hovering at 17% and 14%, respectively, since 2005. Hong Kong, with its special political relationship to China, ranked second to Japan in terms of volume.

The share of ASEAN countries in China's trade with East Asia increased, from 11% in 1990 and 15% in 2000, to 20% in 2005 and 22% in 2007. The ASEAN-China FTA was established in 2002 with provisions for an Early Harvest Program (EHP) which came into force in 2003 and implemented in 2004. Malaysia and the Philippines had not yet completed their negotiations when the FTA was signed, with the Philippines signing the EHP with China only in 2007, the

last among the ASEAN member states to do so (Medalla and Balboa 2007). Despite such stumbles the initiative forged ahead towards an FTA by 2010. The Agreement on Trade in Goods was signed in 2004 and went into force in 2005. In China's total trade, Malaysia and the Philippines posted a high increase in share—Malaysia's share grew from 2% in 1990 to 5% in 2007, while the Philippines's grew from less than 1% to 3% during the same period.

In the next section we examine more closely China's trade with its neighboring economies, and the product groups being traded. We shall see how trade has changed in terms of: (i) demand for natural resources by China; (ii) demand of China for more consumer goods; (iii) complementarities based on the "flying geese" development model and on the growing phenomenon of global production networks.

4. Structure and patterns of China's trade with East Asia

China's trade in 2007 with East Asia was quite significant at 42%. This share had fallen over the years even as the value grew steadily, a reflection of the even faster rate of growth of China's trade with the rest of the world. Still, the average annual growth of trade with East Asian countries was 14% from 1992 onwards.

China's trade balance with East Asia turned negative after 2002 (see Chart 7A). The 1997 Asian crisis and China's accession to the WTO in 2001 were nodal points in China's trade with the region. Another nodal point was 2004, a reflection of the global boom that went bust in 2007.

4.1 *China's trade with East Asia by partner*

Japan was China's number one trading partner in the region, but Japan's share had fallen from a high 18.6% in 1997 to 10.9% in 2007. On the other hand, trade with ASEAN, Korea, and Taiwan increased, with ASEAN's share growing from 5.1% in 1992 to 9.0% in 2007, while Korea's and Taiwan's share of 3.0% and 4.0%, respectively, in 1992 grew to 7.3% and 5.8%, respectively, in 2007. China's trade by volume roughly followed the flying geese pattern. Japan remained China's most significant trade partner in East Asia because China depended heavily on Japan for machinery and other technologically

advanced capital goods. Following Japan were the three first-tier NIEs—Hong Kong, Korea, and Taiwan—with shares at 9.0%, 7.3%, and 5.8%, respectively, in 2007. Next were Singapore and the second-tier NIEs (Malaysia and Thailand), whose shares ranged from 1.6% to 2.1% in 2007. In second to the last place were the Philippines and Indonesia, with shares at 1.4% and 1.1%, respectively, in 2007. The CLMV countries (Cambodia, Lao, Myanmar, and Viet Nam) and Brunei were last, but their trade with China was steadily increasing.

Although the flying geese pattern was generally followed, there were some interesting rearrangements in the hierarchy. Of China's fourteen trade partners in East Asia, Hong Kong ranked second in terms of volume, with its share also falling like Japan's, from 35.1% in 1992 to only 9.0% in 2007. But from 1987 to 1992, it was China's most important trade partner, even ahead of Japan. The shift reflected Hong Kong's diminished role as a re-shipment point for China after its turnover in 1987 and the more open trade policy itself of China.

Korea and Taiwan caught up with Japan in importance as sources of China's heavy industrial imports. Korea is the second OECD country in the region while Taiwan, despite its political differences with China, has the advantage of having the same language and culture, aside from also carving for itself a niche in East Asia as a competitive original equipment manufacturer (OEM) and maker of memory chips.

ASEAN as a group, whose share had been gradually rising, recently overtook Hong Kong and since the mid-1990s also Korea and Taiwan. However, ASEAN is quite a disparate group (Singapore, an early NIE; a group of emerging economies; a group of transition economies; and one small oil-rich country). In the past, Singapore was China's biggest trade partner in ASEAN. But Singapore's share, hovering around 2% between 1992 and 2007, was way below those of Hong Kong, Korea, or Taiwan. Malaysia had even overtaken it recently. In general, ASEAN exports to China were mostly raw materials and office and telecommunications equipment. But the trade profiles of each ASEAN country were dissimilar, suggesting different areas of comparative advantage vis-a-vis China.

China had a trade deficit with the ASEAN as a group. But it consistently had a surplus with the smaller countries—Cambodia,

Lao, Myanmar, and even Viet Nam (CLMV). China's deficit with the ASEAN was accounted for by its trade with the original member countries, except Singapore. China was a net importer with Indonesia and with Malaysia throughout 1992-2007. With Thailand, China had a surplus until 1995, with a growing deficit after. A similar trend could also be observed for the Philippines and Brunei, with the shift occurring in 2000. With Brunei, trade was essentially in raw materials, mainly fuel, but the value was quite small, only higher than Lao PDR among the ASEAN countries. The surge nevertheless had been noticeable since 2002, when China started its aggressive importation of petroleum.

China's trade with Singapore turned into a surplus only recently, the same as with Hong Kong. But China's surplus with Singapore was less than a tenth of its surplus with Hong Kong. Moreover, China's trade with Hong Kong had consistently been in surplus.

Trade with Japan, as with Korea and Taiwan, was in deficit. There was a surplus with Japan from 1996 to 2001, except in 1999, but with Korea and Taiwan, trade was always in deficit. This was consistent with China's industrial development in which up to this point China's imports of technologically advanced machinery and intermediate inputs were more than its exports of finished goods and semi-manufactures to these technologically advanced countries.

Because the CLMV countries (Cambodia, Laos, Myanmar, and Viet Nam) were industrially less developed than China, they were dependent on China for much of their consumer goods and intermediate goods, which were cheaper and more accessible than those from Japan and the western countries, or even from the NIEs. In exchange, China imported raw materials. Hence it was not surprising that China's balance of trade with these countries was in surplus.

4.2 China's trade with East Asia by product classification

With East Asia, as with the entire world, China was in general a net importer of raw materials and a net exporter of finished goods. But China's raw material imports from East Asia were relatively small compared with its raw materials imports from the rest of the world. What China imported a lot of from East Asia were intermediate goods

(particularly chemicals) and capital goods (office machinery and telecom). (Those who want to examine more closely the data on which the discussion in this section is based should consult Table 14 and Chart 9.)

4.2.1 Raw materials

The share of raw materials in China's East Asian trade had not been large to begin with and it was shrinking, from 10.3% in 1992 and 11.1% in 1997, to only 6.7% in 2007, constituting 22.4% of total trade in raw materials, down from 62.9% in 1992.

As with the world also, most of China's East Asian trade in raw materials was in fuels and mining products, comprising around 75-80%. But the flows were different with each East Asian country, even if China was consistently a net importer. Hong Kong, Korea, Singapore, and even Japan until very recently, were net importers of fuel and mining products from China, which was not surprising because of the relative scarcity of these resources in these countries. That Hong Kong and Singapore were also net importers of agricultural raw materials and food from China, again was not surprising since these two economies do not have a significant agricultural sector.

4.2.2 Final goods

China was a net exporter of finished goods to East Asia in general and to individual countries except Taiwan, Korea, and Thailand. Moreover, before 2002 its surplus in finished goods with East Asia exceeded its deficits in raw materials, intermediate goods, and capital goods combined, leading to a surplus in most of the years. It should be noted that China suffered a significant deficit with East Asia from 2002 to 2006 (Chart 7A).

In terms of exports of clothing, China remained unchallenged in the region. Exports of clothing products still generated most of China's surplus.

The remaining surplus in finished goods was mostly due to its trade in food products. Japan, Korea, Taiwan, and the Philippines were net importers of food from China while Malaysia and Thailand were net exporters since 1993 and Indonesia since 2003. It was China's

imports of food products from Thailand that accounted for its deficit in finished goods with this country.

The trade in "other manufactures," which accounted for 12% of total trade with East Asia in 2007, was an item under finished goods that was growing fast, although its contribution to the surplus was quite small, since China imported almost as much as it exported of goods in this category. Trade in this category was three times the volume of trade in clothing and about four times that in food. Almost 50% of trade in other manufactures in 2007 was in liquid crystal devices and lasers.

Liquid crystal devices and lasers products made up over 80% of China's imports of "other manufactures" from both Korea and Taiwan in 2007. At the same time, these items were also China's top exports of "other manufactures" to these two countries. But liquid crystal devices and lasers made up only 23% of China's exports of other manufactures to Korea and 33% to Taiwan in 2007. Hence "other manufactures" from Taiwan and Korea accounted for the deficit in finished goods that China had with these two countries.

More recently, there was some increase in the import share of finished goods in China's trade with East Asia, but it is doubtful if this trend, including its strength and growth rate, could be sustained. The share of finished goods in China's total trade with the region was also falling, from 33.4% in 1992 to 29.1% in 1997. In 2007 it was only 19.2% of trade with the region. With raw materials making up 6.7%, the remaining three-fourths of China's trade with East Asia was in intermediate and capital goods.

4.2.3 *Intermediate goods*

China had a deficit with East Asia in both capital goods and intermediate goods, while it had an overall surplus in both these sectors. Capital goods and intermediate goods accounted for 61% and 26%, respectively, of China's trade surplus with the world. These figures are indicative of China's part in the regional production networks. Unfinished or semifinished products from East Asian countries first went to China before being exported as finished products to countries in the rest of the world. The situation seemed to be reversing

beginning in 2004, rather more sharply for capital goods than for intermediate goods.

Among the East Asian countries, Japan, Taiwan, and Korea were consistently net exporters of intermediate goods, while Singapore and Thailand also became net exporters of intermediate goods starting in 1998. China became a net exporter of intermediate goods to Indonesia and Malaysia in 2004 and 2007, respectively. Hong Kong had been a net importer since 1993, and the Philippines was a consistent net importer.

China's exports of intermediate goods to East Asia stayed at roughly 20% of total exports to the region, while imports constituted over 60% of China's total imports of intermediate goods.

The pattern within the region reflected China's global trade pattern in intermediate goods. Table 14C shows China's 2007 trade in intermediate goods by partner and by components. Trade in chemical products comprised the largest component of China's trade in intermediate goods with every trade partner in East Asia except Hong Kong. China's trade in intermediate goods with Hong Kong was dominated by textiles, followed by other semi-manufactures. In the case of Korea, iron and steel aside from chemical was also quite important in the trade in intermediate goods.

Almost half (47%) of China's trade in intermediate goods with the nine East Asian countries was in chemicals, and the deficit of \$42.8 billion was bigger than the combined surpluses in iron and steel, textiles, and other semi-manufactures. China was a net importer of chemical products from Japan, Korea, Singapore, Taiwan, Thailand, and Malaysia. Except for Malaysia, China had a deficit in intermediate goods with all these countries. China had a small surplus in chemical products with Hong Kong, the Philippines and Indonesia.

Ranking total trade for each component of intermediate goods by SITC code at the 3-digit level yielded a different set of significant sectors (see Appendix 2) but the single largest sector was still chemicals (sectors under category 5 in the SITC3 code)—hydrocarbon derivatives (code 511) in particular, making up 13% of China's trade in chemicals with East Asia.

Hydrocarbon derivatives along with carboxylic acid derivatives, polymers and other primary plastics with a wide range of application were major import items. The major export items were the more traditional metals and textiles. The composition of China's trade in intermediate goods with its East Asian neighbors corresponded with the flying geese paradigm wherein the more developed countries appeared to have the relative advantage in the more sophisticated products. This was in accordance with Cui and Syed's (2007) observation that China had moved away from traditional assembly operations and up the value chain. The data also confirmed the slowdown in China's importation of intermediate goods in general.

In China's East Asian trade in intermediate goods, there was a shift from textiles and iron and steel to semi-manufactures and chemical products. China gained the advantage in textiles, except with Japan, Korea, and Taiwan. In iron and steel China had the advantage except against Taiwan and Japan. In semi-manufactures it had the advantage except against Taiwan and Thailand. It had very little advantage in chemical products, except against Hong Kong, the Philippines, and Indonesia.

4.2.4 *Capital goods*

If we look at the East Asian trade in capital goods, we would see that China had moved up the value chain and that production networks had also multiplied.

In 2007, China's trade deficit of about US\$18 billion in capital goods with East Asia was slightly lower than its trade deficit of around US\$21 billion in intermediate goods, but exports of capital goods accounted for around 51% of total exports compared to 19% for intermediate goods, and imports were 54% compared to 23%. There were greater flows of capital goods within the region and through China.

As shown in Charts 9A to 9C, China's imports of capital goods from East Asia as a share of total imports started to increase in 1997 and then tapered off in 2003, whereas exports of capital goods as a share of total exports steadily increased starting in 1993, with a brief plateau in 1997, and then increased again in 2007.

China, being a developing country, was capital scarce. It was a net importer of capital goods from all its neighbors in East Asia except Hong Kong, Singapore, and Indonesia. The importation of capital from more developed economies was to be expected as predicted by the flying geese model. However part of this trade in capital goods was also due to regional production networks.

Interestingly, China was importing very different kinds of capital goods from Japan than from ASEAN. In fact, Japan exported mostly transport equipment and other specialized machineries while ASEAN specialized in office equipment. Japan was also involved in the production of office equipment, but if we looked into the details we would see that Japan was exporting more integrated circuits, considered the higher-end product group within the office equipment category, while most of the other Asian countries dealt more with electronic data processing and telecommunications equipment.

Among the three subcategories of capital goods, office and telecommunication equipment was the most significant, accounting for 64% of China's trade in capital goods with East Asia as a whole. East Asia also accounted for 54% of China's trade in office and telecommunication equipment. The exception was perhaps with Japan where trade in other machinery got a slightly bigger share. Another exception was Indonesia, whose trade in capital goods with China was unusually small, compared with Japan, NIEs, and the other ASEAN4 countries. In fact, it was only about 5% of that of Japan, and about a quarter of that of the Philippines.

Another significant feature of the trade with Japan was that Japan had the largest share of China's trade in other machinery and in transport equipment with the region. Japan had a net flow in capital goods in all categories, but the biggest one was in other machinery. As the industrially most advanced country in the region, Japan was China's main source of heavy machinery. As for transport equipment it was not so surprising considering the importance and size of the Japanese car industry. Compared with the other economies in the region, the China-Japan trade in this category was relatively small.

Aside from Japan, China also imported other machineries significantly from Korea and Taiwan, with a negative balance. Korea also

had a surplus in transport equipment. Again, this was consistent with the flying geese pattern. Japan led in the technology of capital for a long time, while Korea and Taiwan gained comparative advantage recently in machinery as well as in transport equipment.

The net flow from most East Asian countries to China was predominantly in office and telecommunications equipment, which constituted 64% of China's capital goods trade. Japan, too, had net flows in office and telecommunications equipment to China, albeit these net flows were only a third of the value of net flows in other machinery. While leadership in technology certainly played a part, we also saw how the production network was laid out across the region. China exported huge volumes of office equipment to its neighbors and imported even more. The exceptions to this pattern were Indonesia, Singapore and Hong Kong.

Classified under office and telecommunications equipment are three main categories of products: EDP and office equipment, telecommunications equipment, and integrated circuits (IC) and electronic components. Among these, IC and electronic components made up about half of China's trade in office and telecommunications equipment with the region. Moreover, they constituted 78% of China's total trade in this category of capital goods. In both its trade with East Asia and with the world, China had a high deficit in this sector, whereas for the other two sectors—EDP and telecommunications equipment—it had a surplus.

Transistors and valves, etc. were the main items in China's imports from East Asia, constituting about 90% of China's imports from the world. Electronic microcircuits made up the bulk of the trade in IC and electronic components. All these formed a substantial part of the region's information technology manufacturing network.

Details of total trade for each component of capital goods by SITC code at the 3-digit level are shown in Appendix 3, ranked by total trade in East Asia.

4.3 *China's trade with Japan*

China's trade with Japan showed an increasing deficit from 2001 onwards. The pattern of China's trade with Japan was typically that of

a developing country with a more developed partner: China exported final goods (mainly food and clothing) and imported capital as well as processed goods.

China became a net importer of raw materials from Japan—mainly agricultural raw materials—starting in 2002 and fuels and mining products starting in 2006. But trade in raw materials fell to 5% in 2007, compared to 15% in 1992, when China was still a net exporter of both types of raw materials to Japan. As it progressed, China turned from being a net exporter of raw materials to a net importer: it required more natural resources than it possessed for its domestic consumption and to fuel its expanding production for trade. But that Japan, a country not particularly resource-rich, should have this type of the relationship with China is curious to say the least.

China became a net exporter of semi-manufactured intermediate goods. Even though the balance was small, it was growing over the years. This was the case with all East Asian countries except Taiwan and Thailand.

Imports of capital goods and intermediate goods comprised around 56% and 29%, respectively, of China's total imports from Japan. The broad composition of imports remained largely unchanged throughout the period. The composition of exports, however, showed an increasing share of capital goods. China exported as much capital goods as it did of finished goods to Japan by value, each constituting around 40% of China's exports to Japan. However, China's imports of finished goods from Japan made up only around 11% of its total imports from Japan, while capital goods made up 57% of its imports from Japan.

The key points in China's trade with Japan in capital goods have been discussed in the previous section. While some features may be attributed to the flying geese paradigm, the role of the production networks could be observed in the increase of both exports and imports of capital goods, and particularly of the office equipment component of capital goods.

Across the region, the burgeoning trade in capital goods—both exports and imports—was the most obvious feature. Capital goods accounted for upwards of 45% of China's trade in 2007 with most of

its neighbors. This component in China's trade with Korea was 45%; with Taiwan and Japan, 49%; with Thailand, 53%, with Malaysia, Singapore and Hong Kong, over 60%. It was highest with the Philippines at 78%.

4.4 *China's trade with NIEs*

China's trade over time with the NIEs reflected the somewhat different development paths of these economies. The surplus with Hong Kong and Singapore possibly reflected the nature of specialization of the two city states as free ports. It might also have been a reflection of the unique relationship of China with Hong Kong: the surplus with Hong Kong alone was more than enough to offset the combined trade deficit with Korea and Taiwan. Moreover, China had a trade surplus with Hong Kong across all categories, except in the monetary goods and special transactions categories. Still, capital goods accounted for more than 50% of China's trade surplus with Hong Kong—47% from office equipment alone in 2007.

One peculiarity of China-Hong Kong trade was that it mirrored China's trade with the whole world. China classified trade with other countries as trade with Hong Kong if it passed through Hong Kong ports. This in part explained the discrepancies in bilateral trade statistics as reported by China and its trading partners, particularly industrial countries.

The pattern of China's trade with Singapore had become similar to that with Hong Kong, except that its value was much smaller, only about a fifth of that with Hong Kong. Also China was a net importer from Singapore of special transactions commodities as well as of chemical products. This was a reflection of the different specializations of Singapore and Hong Kong.

Following the prediction of the flying geese model, China was a net importer of other machinery from both Korea and Taiwan, and intermediate goods from Korea, Taiwan, and Singapore. China also imported machinery from Singapore, in 1997 and in 2002, but by 2007 China had become a net exporter to Singapore. Taiwan and Korea had a more solid industrial/technological base from which they derived their comparative advantage in this area. In 2007, capital goods

accounted for 45% and 49% of China's trade with Korea and Taiwan, respectively. Intermediate goods, on the other hand, accounted for 29% and 26% of trade with Korea and Taiwan, respectively, and comprised 11% of trade with Singapore.

China was a net importer from Taiwan and Korea across all categories, including finished goods. Korea used to import more finished goods from China than it exported. But in recent years China started importing more—not food and clothing where it maintained a surplus but other manufactures. We observe the same surge in this category also for Taiwan. “Other manufactures,” which includes scientific and controlling instruments, apparatus, and other laser equipment, made up 19% of China-Korea total trade and 74% of the finished goods category. Other manufactures took up an even greater position in China-Taiwan trade. Its share in total trade was also 19%, while its share in the finished goods category was 96%. China's deficit in finished goods with Taiwan and Korea could be attributed to other manufactures.

4.5 *China's trade with ASEAN4*

China's trade with the ASEAN4 countries grew very robustly, with growth accelerating in the period from 2002 to 2007.

In terms of volume, Malaysia among the ASEAN4 had the largest trade with China, followed by Thailand, the Philippines (which experienced the fastest growth), and Indonesia, in that order.

Like its trade with East Asia, China's trade with ASEAN4 as a whole was such that China was a net importer of raw materials and capital goods, and a net exporter of finished goods. But while China was a net importer of intermediate goods with East Asia as a whole, it was a net exporter with ASEAN4. But for the items under this category, the profile in terms of trade balance in 2007 was the same for both East Asia and ASEAN4, i.e., China was a net exporter of iron and steel, semi-manufactures, and textiles, but a net importer of chemicals. The difference was that for ASEAN4, the surplus realized in exports of chemicals to China was not enough to cover the deficit incurred in imports of iron and steel, semi-manufactures, and textiles.

With respect to finished goods, China had a surplus with both East Asia and ASEAN4. For East Asia, China had a strong comparative advantage in clothing and food and for the ASEAN4 it was in clothing and other manufactures. It should be noted that China had been a net importer of food from ASEAN4 since 1997.

As mentioned, Malaysia among the ASEAN4 had the largest trade by volume with China. By 2007, China's trade with Malaysia had reached about the same volume (slightly higher) as that with Singapore, even though it came from a lower base. Among the ASEAN4 countries, Malaysia appeared to have been the only one to build some comparative advantage in machinery, but like Singapore, it was apparently not strong enough. Like the other ASEAN4 countries, the main component of Malaysia's trade with China was in office and telecommunications equipment, which made up 51% of total trade and 61% of its exports to China.

Another difference between Malaysia and Singapore was that Malaysia was a net exporter of raw materials and capital goods. China reported net inflows of raw materials from all ASEAN4 countries. In fact, with Indonesia, China's imports of raw materials was the driver of its trade deficit.

Thailand was the only ASEAN4 country that had a surplus with China in all categories: raw materials, intermediate goods, capital goods, and finished goods, with the surplus in intermediate goods and finished goods much smaller than in the other two categories. Only Thailand appeared to have an overall comparative advantage in intermediate goods in the more recent years, specifically in chemical products and semi-manufactures.

Malaysia, too, developed an advantage in chemical products while Indonesia and the Philippines did not. Malaysia and Indonesia had the comparative advantage in semi-manufactures in the beginning but by 2007, China had become a net exporter of semi-manufactures to both countries. There appeared to be a similar but much shorter and earlier trend in textiles with both countries. The Philippines never had an advantage in any of the products under intermediate goods, except in iron and steel, and in chemical products before 1992.

China had a deficit with the ASEAN4 as a group. Except for Indonesia, it was capital goods that contributed the most to this deficit in recent years. In 2007, China imported two and a half times more capital goods than it exported to the ASEAN4 as a whole. In the nineties, other machinery components of capital goods dominated China's exports to these countries, giving China a surplus in capital goods. By the end of the 20th century, China's imports of office and telecommunications equipment had exceeded those of other machinery, although overall the trade in capital goods was still a surplus for China. Since the early 21st century, however, with every trade partner (except Indonesia), it was the office and telecommunications component of capital goods that comprised the bulk of capital goods trade. These statistics show that the phenomenon of production network went into full gear in the past decade.

The share of capital goods in China's imports from ASEAN4 increased rapidly from 2% in 1992 to 63% in 2007. The total volume was not large relative to China's total trade, but it had a big impact on the ASEAN countries. However, for China's exports to ASEAN4 there was a noticeable plateauing and even some gradual tapering starting in 2001. While gradual, it might be a symptom of changes in the configuration of the production network. It would appear that China in recent years had reached a kind of equilibrium in its mix of exports to ASEAN. The levels, however, kept increasing and grew on average around 25% annually.

As already mentioned, China remained a net exporter of finished goods to ASEAN4 except Thailand. Unlike with Korea, Taiwan and Japan, where China had the advantage in clothing and food, China's advantage over the ASEAN countries was in clothing and other manufactures. The ASEAN countries—except the Philippines—had some relative advantage in food.

4.6 *China's trade with the Philippines*

Even as late as 1992, the volume of China's trade with the Philippines was miniscule. Despite the phenomenal growth of China's trade, the Philippines was only able to get a 1% share of China's total trade from 1997 onwards; and in 2007, its exports to China comprised just 2% of

China's imports. The Philippines' share in China's trade was the lowest among the ASEAN4 until 2009 when it overtook Indonesia (Table 13). Moreover, China-Philippines trade was very much concentrated in only a few sectors. Capital goods constituted 78% of China's trade with the Philippines, of which office and telecommunications equipment comprised 90%. The concentration was more remarkable when one looked at the data on the Philippines' exports to China (China's imports), which show that for 2007 capital goods made up 88%, of which 95% were office and telecommunications products. This in fact accounted for the trade deficit with the Philippines that China started to report beginning 2000.

This concentration was not as distinct for the other ASEAN4 countries, although, except for Indonesia, capital goods also made up the largest component in the last decade, the period when production networks in the region expanded very rapidly. In 2007, capital goods accounted for 27% of China's trade with Indonesia, while the share was 53% for Thailand and 61% for Malaysia. Indonesia failed to increase its trade with China because of its relative weakness in this sector. In 2007, China only had \$6.3 billion of trade in capital goods with Indonesia. By contrast, Thailand had \$17.7 billion, the Philippines \$23.2 billion, Singapore \$26.1 billion, and Malaysia \$27.4 billion. But, compared with the other ASEAN4 countries, Indonesia had a more diversified trade with China.

The pattern of the Philippines' trade with China reflected the changes in the region. China-Philippines trade for the earlier period was based on complementarity due to endowment differences as well as differentiation of manufactured products (Palanca 2001b). From the late nineties onward, the rapid development of regional production networks provided a different form of complementarity. The Philippines contributed parts of the region's IT production, which, together with the other countries involved in the production networks, complemented the important role played by China in the final assembly of the products. The involvement of the Philippines in the regional production networks explained the fast growth of the Philippines' trade, particularly exports of office and telecommunications equipment. The

share of this sector increased from less than 1% in 1992 and 13% in 1997, to 57% in 2002 and 78% in 2007.

While indeed driving the trade, such concentration of trade in a single sector obviously has downside risks given that the country's trade depended on a few, or even only one, sector. (The recent global financial crisis demonstrated this.) Even though this was only trade with a single partner, it also reflected the Philippines' overall trade pattern. East Asian trade accounted for 67% of Philippine trade in 2007 (see Table 7) and China accounted for nearly a third of Philippine trade with East Asia.

In fact, according to China data, China accounted for 20% of total Philippine trade in 2007 (Table 8A). The growth was very sharp, since in 2000, China accounted for only 2%, and in 2005, 8%. This shift was one of the most significant in the Philippines' recent history. The Philippines found opportunity in the recent growth of China and in the regional networks, but the gains would have to be spread out over a wider range of economic activity if the country were to capitalize on it, and avoid what could turn out to be a story of Dutch disease.

This study should dispel any view that China could only be purely a threat to a small country like the Philippines. A small country can never match a much bigger one in collecting gains derived from sheer size and number. But there are myriad strategies available to a small country. With China growing so fast and its per capita income increasing rapidly, there are lots of opportunities in terms of exporting consumer goods and even intermediate products.

China's growth changed the global economic scene and more changes could be expected. Aside from China's growth, both regional and global developments are constantly introducing both new opportunities and challenges. The competition is dynamic. A country's comparative advantage constantly changes. Even linguistic and cultural advantages might be overcome over time. This applies both to the Philippines and to other countries. East Asian countries have been very quick to adapt and the Philippines must also do so. A slow response to changed circumstances could be especially debilitating to a small country which does not have the kind of buffers possessed by a large country.

One very evident direction is the need for the Philippines to quickly diversify and to continuously search for other opportunities. The country is neither so small nor so constrained by resources as to be restricted to just one or two competitive industries. There are opportunities, and entrepreneurs are in the best position to identify these as they are the ones who take on present risks in exchange for possible future gains. But entrepreneurs need the assurance of a stable and fair environment within which business can be conducted with no more uncertainty than is warranted. And the state should provide the appropriate institutional environment such as the provision of public infrastructure—connectivity through transport and communications, provision of utility services at competitive rates, the reliability of the legal and justice system—for business to achieve economic growth.

The trade profiles of the Philippines' neighbors with China were much more diversified than that of the Philippines. The countries are so similar in a lot of ways as to prompt the question: Why did Malaysia, Thailand and even Indonesia attain comparative advantage in food and chemical products and semi-manufactures and export these to China? Why not the Philippines? The similarities in natural endowments are so great that differences in competitive performance can be attributed in great part to governance factors. Indeed, the Philippines ranks lower than some former communist countries in such broad measures as the Doing Business index of the World Bank. The comparative advantage attained by Malaysia, Thailand and Indonesia may also be due to their having pursued some form of industrial planning.

5. A recapitulation

With China's opening up to the world, its economic growth became closely linked with the growth of its trade. China's trade with East Asia in particular grew fast and remained significant despite falling quite dramatically in the latter years of the period, from 62% in 1992 to 42% in 2007. Except for Malaysia and Vietnam, all the East Asian countries also profited from the increased intra-regional trade.

China accounted for the largest single share in East Asian intra-regional trade after 2003. It also took over from Japan the leading role in the expansion of trade in East Asia. But for China, East Asian trade

became less important if still significant simply because of the sheer size that China's trade eventually achieved after it established extensive global trade relations.

While China's exports of finished goods remained substantial, its trade in intermediate and capital goods signalled that its trade position had progressed beyond the producer-consumer dichotomy. The increasing share of trade in capital goods indicated the fast growth of the technology sector, as well as the increasing density of the production networks that accompanied the growth of the entire region.

China started as an exporter mainly of final goods—clothing, toys, footwear, etc., which continued to be the largest source of trade surplus for China. Exports of intermediate goods also grew but it was exports of capital goods (machinery and transport equipment, and more specifically in the sector involving IT, office and telecommunications equipment) that increased the fastest in recent years.

The pattern of China's trade was not the same for every country in East Asia. This partly reflected the specific advantages that each country brought to its trading relations. In finished goods, China had an advantage in clothing and food *viz.* Japan, Korea, Taiwan, Singapore and the Philippines. It lost some advantage in food products *viz.* Malaysia, Thailand, and Indonesia, but gained in other manufactures. It was essentially the same story with raw materials. China had essentially little advantage in exporting raw materials, except to Hong Kong and Singapore, and earlier to Japan.

In China's trade in intermediate goods with East Asia, China's exports shifted from mostly textiles and iron and steel, to include also semi-manufactured products while its imports of chemical products declined. China eventually gained the advantage in textiles, except with Japan, Korea, and Taiwan. In iron and steel it had the advantage, except against Taiwan and Japan. It had the advantage in semi-manufactures, except against Taiwan and Thailand. In chemical products it had very little advantage except against Hong Kong, the Philippines, and Indonesia.

Accounting for more than 50% of China's East Asian trade, capital goods was the driver of the regional trends. Japan had a clear advantage in capital goods, followed by Korea and Taiwan, with their

comparative advantage in machineries and transport equipment, aside from office and telecommunications equipment. But the bulk of East Asian trade was in office equipment and while leadership in technology certainly played a part, this was evidence of the extent of production networking throughout the region. China sent out huge volumes of office equipment to its neighbors and imported even more.

The dynamics of comparative advantage were seen not only in China's demand for natural resources but also in the different products that countries traded with each other. There was evidence, even if still weak, of the greater demand for more consumer goods by China because of the now higher income of the Chinese as well as the easier access to China's market. The complementarities based on the "flying geese" development model and the growing phenomenon of global production networks were observed in the shifts in product specializations over the years and across countries. This was especially evident in the export and import of office equipment.

China's shift from manufacturing of light-finished goods to heavy-capital goods conformed with the product hierarchies in the flying geese paradigm. It showed China overtaking some countries in the gaggle. However, the shift in the hierarchy was also caused by all the countries being part of a production network; there was introduced dynamics absent in the original flying geese paradigm. Production networks can be consistent with the flying geese model and may be considered an elaboration, since it is based on the idea that there is some form of division of labor within the region. With production networks, the original hierarchies might break and realign as the balance of partnership and competition shift when countries become more developed. Whether viewed from the angle of production networking or the flying geese model, comparative advantage was a consideration in deciding where firms put up production bases.

The production networks were also evidence of the high degree of interdependence among the East Asian economies. Growth in the region was largely export-driven and much of the growth was on account of the export-oriented production networks. One consequence of this was that business cycles became highly correlated and a serious downturn easily revealed systemic risks. Much depended on

how the network was actually configured, and how much diversification each country managed to achieve outside of the regional production process. China's growth and increased production and trade introduced opportunities for all countries in the region but engendered competition at the same time. It led to trade integration, but the degree of integration within the region was hardly uniform. Much still depended on the demand, capacity and relative advantage each country managed to build for itself.

The implications of all this for the Philippines as well as for all East Asian countries including China, are: 1) there was competition but there was also growth because of cooperation among the countries in the region; 2) the changing relations and interactions of countries in the region expectedly gave rise to various opportunities as the countries in the region continued to grow and develop; and 3) while it was not a zero-sum game, quick policy responses and efficient implementation determined how much each country benefited from regional trade and integration, and whether the gains—for each country and for the entire region—became permanent enough as a basis for future growth.

6. Recent shifts in China's trade patterns

Dramatic changes have occurred in the global economy since 2007. The financial crisis which started in the United States and Europe in 2008 has wreaked havoc on the global economy. Until today, many economies in Europe and the Mediterranean are still in recession or have not fully recovered.

Since opening up in the 1980s, China's economic growth has been strongly export-driven, even accelerating from 1998 to 2007, with most export demand coming from the US and Europe. Therefore China could not escape the adverse effects of the financial crisis. Despite the gradual recovery of the US starting in 2011-2012, China's economic growth has slowed down because of the crisis.

The economic crisis forced China to change course with regard to its economic growth path. As a short-term remedy, it adopted huge investment stimulus packages to counter the sharp decline in export demand and foreign investments. Massive domestic investments

have been made mostly in infrastructure and housing as well as in the manufacturing sector, particularly high-tech industries. Despite this, China's economic growth rate dropped from a high 11% annual growth rate experienced during the period 2002-2008, with trade growing at exponential rates, to 9% in the years immediately after the global crisis, and presently stabilizing at 7%. China's trade surplus, which grew sharply from 2003-2008, took a big dip in 2009. Although the trade balance is still positive, it has not regained its pre-crisis levels. The financial crisis has also wrought changes in the patterns of intra-East Asian trade, reflecting the crisis's effects on China's economy as well as its response to the crisis.

The massive investments have been criticized for wastage and creating overcapacity; however, they are making an important impact on China's long-term competitiveness, by increasing tremendously China's production and technological capability.

But China is aware that while investments prepare the country for long-term growth, investment-led growth is not sustainable. In fact it can lead to long-term stagnation, as the experience of Japan showed. China realizes that the long-term solution to growth is the path of balanced growth wherein consumption keeps pace with the other demand components of growth. The stimulus packages undertaken to combat recession in 2009, while it included mostly investments in infrastructure and manufacturing, also included measures to improve social services, specifically health care, low-cost housing, and pensions, all meant to raise consumption and improve the well-being of the poorer population. However, more basic and structural policies, which take time to implement, are necessary to increase private consumption.

The most basic structural change awaiting implementation is the liberalization of the Household Registration System (*hukou*) which would allow the freer movement of people from rural to urban areas. This is necessary in order to increase the people's income, a prerequisite for higher consumption. Other changes in financial and fiscal policies are necessary to support the implementation of this structural change. For example, budget and expenditures will have to be aligned to make urban local governments more capable in providing social services to a

growing urban population. Such systemic changes hamper growth in the short run and are not easy to implement.

Recent data in Thorbecke (2013) show that all components of China's trade, ordinary as well as processing, exports as well as imports, declined in 2009. By 2010 they had all rebounded to levels higher than those prior to 2008 and, except for processing imports, have been rapidly increasing (see Table 25). The growth rates in the post-crisis period, however, are below the exponential growth rates during the pre-crisis period from 2002 to 2008.

For ordinary trade, imports increased much faster than exports after 2009, resulting in a growing deficit. By contrast, for processing trade, exports increased much faster than imports, resulting in a growing surplus. On balance there was a surplus after 2009, except that the level of this surplus was much lower than in the years prior to 2009.

China's ordinary imports in the post-crisis period were mostly inputs for construction and manufacturing. The high imports of energy, minerals, and other primary goods as well as intermediate and capital goods after 2009 reflect China's huge economic stimulus packages focused on investment projects to counter the global recession. The investment projects included developing new frontier high-tech industries.

China's high demand for commodities (energy, minerals, and other primary goods) has resulted in large deficits with the Middle East countries and Brunei, which supply oil; and with Australia and Brazil, which supply minerals and primary goods. A deficit in ordinary trade is also observed for Korea and Japan, which supply China with machinery and equipment (see Table 26). Consumer goods imports constitute just a small percentage of total imports, reflecting little sign of China's intention to increase domestic consumption (Thorbecke 2013).

As for ordinary exports, it is interesting that more than 30% of these went to the advanced countries. The shares of the US, Australia and Brazil in the post-crisis period remained the same while that of Europe declined. On the other hand, the inexpensive manufactured ordinary exports found their markets in the countries under "Rest of

the World,” which includes countries in Latin America and Africa (see Table 27).

With regard to processing trade, both imports and exports also declined in 2009, but rebounded the following year (see Tables 26 & 29). What is noteworthy is that China’s processing imports from East Asian countries (except South Korea) did not increase after 2010 and even declined in 2012, most likely due to the slowing down of China’s economic growth. Processing exports also did not increase for the region, except for ASEAN5 (see Table 29).

By definition, processing imports are used to produce processing exports. Between 2008 and 2012, China’s processing imports increased 27.17% while processing exports increased 27.78% (calculated from data in Table 25). The increase in the value of processing exports over processing imports (slightly over 0.5%) signifies an increase in China’s value-added in the production of processing exports. According to Thorbecke, this is because China in the post-crisis period has been focusing on industries which produce more higher value-added goods. China has also continued to develop industries that produce intermediate goods (evident even before the pre-crisis period), as well as industrial clusters and deeper supply chains in the processing sector.

Another significant trend was the sharp increase in processing imports from “Rest of the World” countries. The share of these countries in China’s total processing imports increased from 25% in 2008 to 35% in 2012. This increase was at the expense of countries in the East Asian region, whose shares between 2008 and 2012 went on a downward trend (see Table 30).

The data clearly show that Africa and Latin America are taking over from the East Asian developing countries as the suppliers in the production segmentation network. What is not so clear is why this shift is occurring. In any case, it is evident that two things are happening: first, China is moving into producing more higher value-added processing goods and, second, suppliers in the global value-added chain have moved away from East Asia to Latin America and Africa.

Given these trends, the developing countries in East Asia would be wise to develop their industrial capacity so that they could take advantage of bigger markets as their exports complement each other

through production sharing. They should also innovate so that they can diversify their exports away from dependence on electronic exports. Dependence on markets provided by the production segmentation network implies dependence on foreign investments and ultimately on the policy of investors.

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Charts and Tables

Chart 1. Intra-regional Trade in East Asia

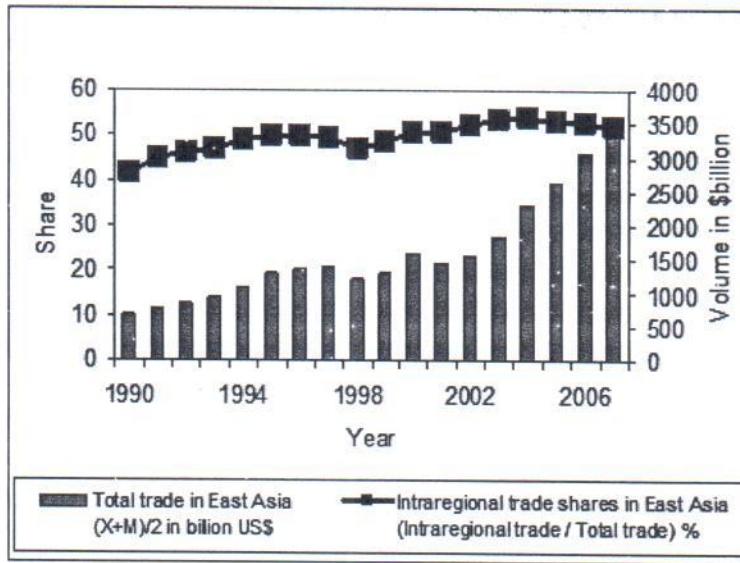


Chart 2. Intra-v. Extra-Regional Trade in East Asia

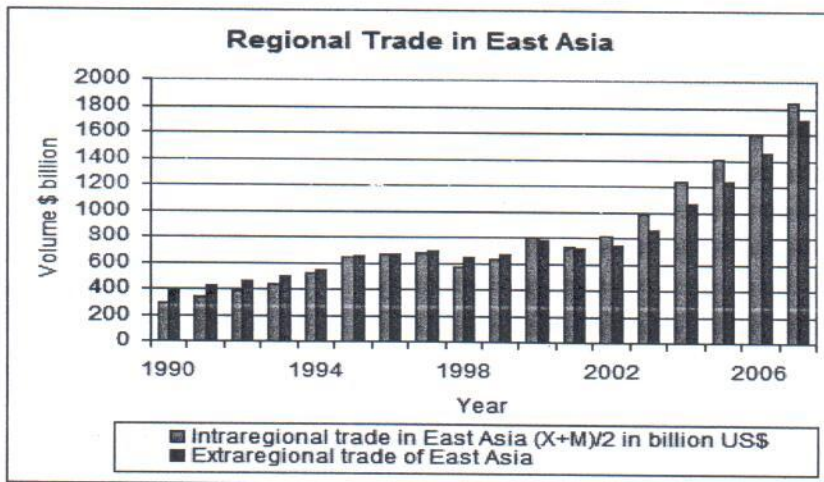


Chart 3. Trade within East Asia

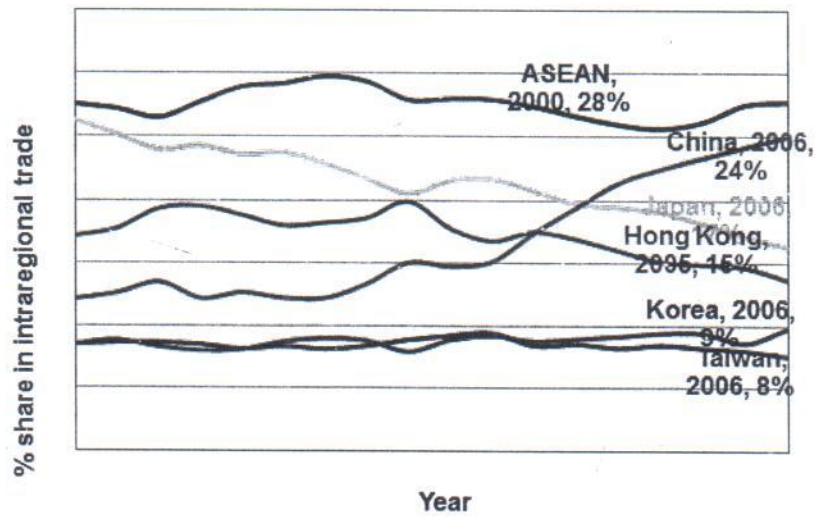


Chart 4A. China's Total Trade: Intra- and Extra-regional

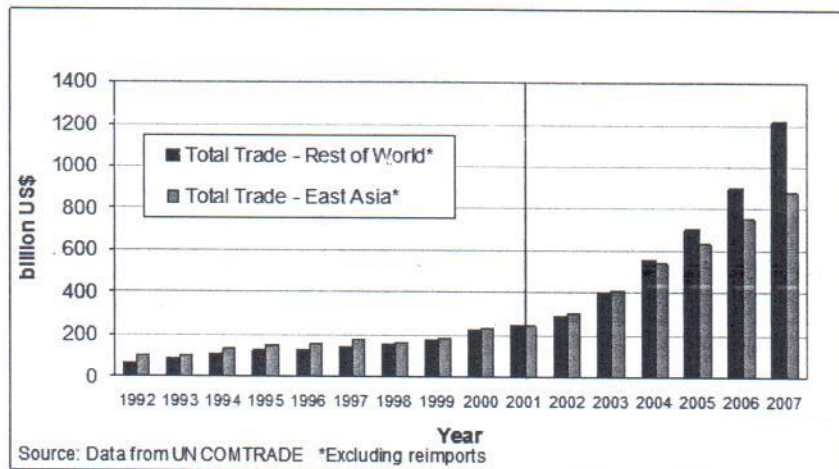


Chart 4B. China's Total Trade: Intra-and Extra-regional (with re-imports)

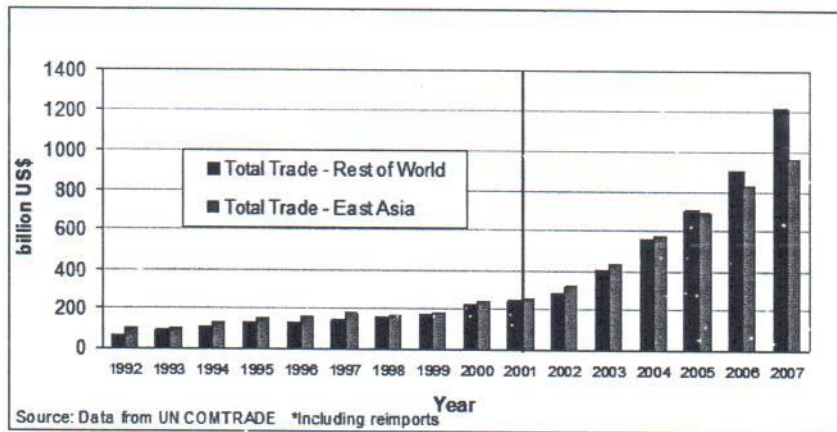


Chart 5. China's Trade Balance (with re-imports)

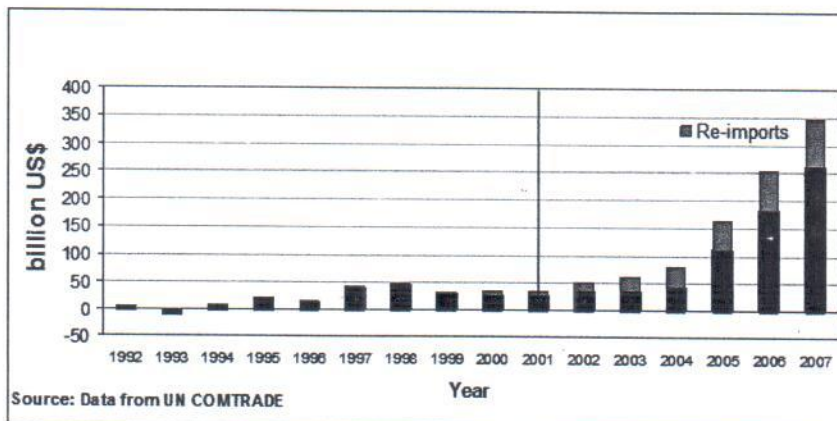


Chart 6A. China's Trade Balance by Product Group

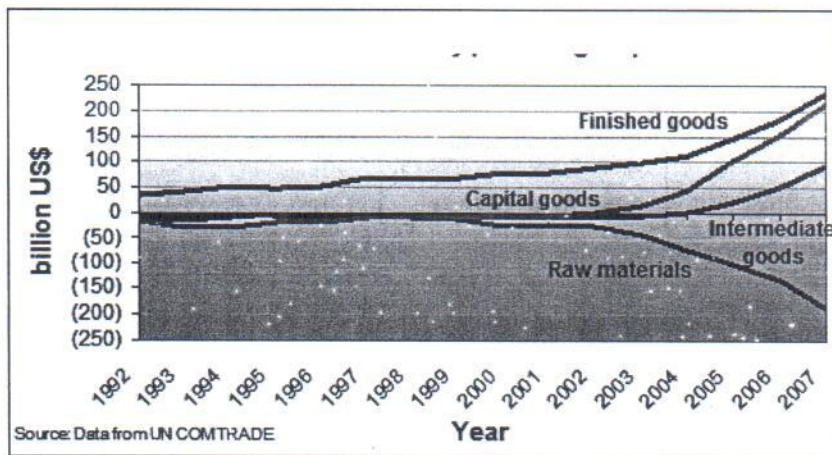


Chart 6B. China's Exports by Product Group

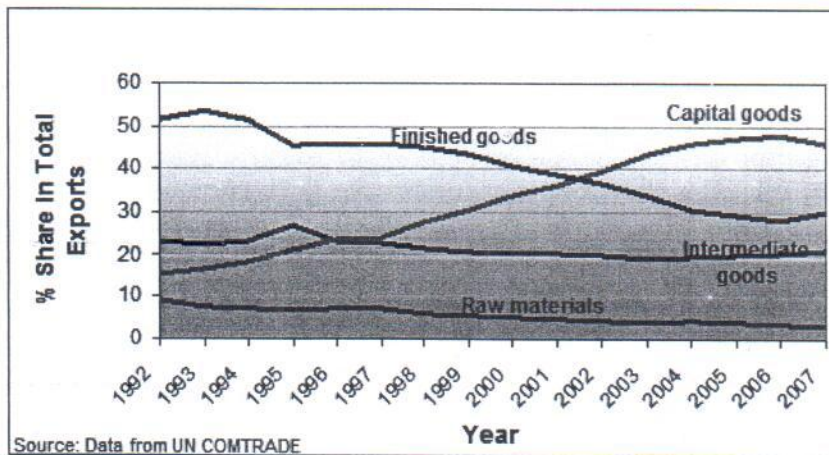


Chart 6C. China's Imports by Product Group

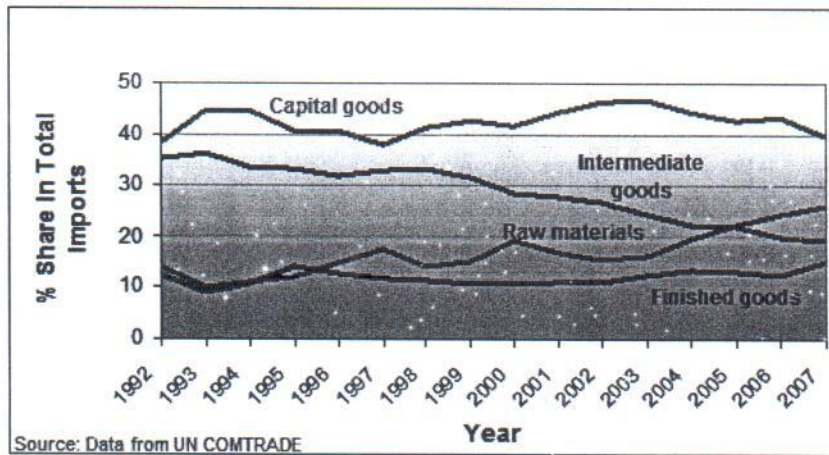


Chart 6D. China's Re-Imports by Product Group

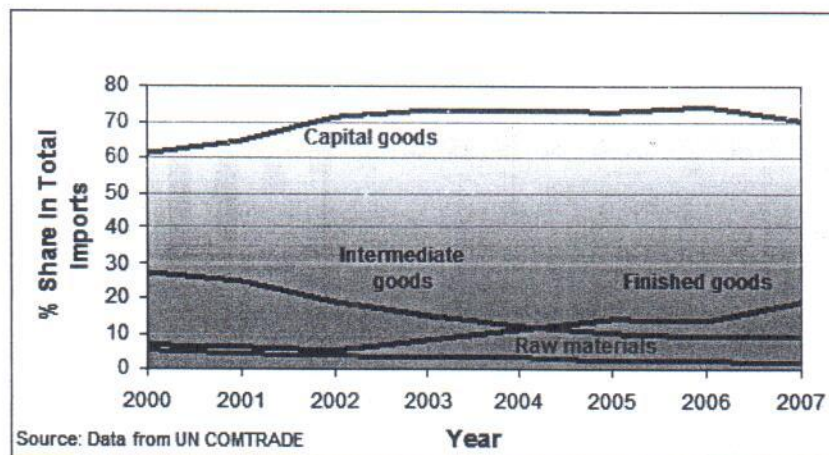


Chart 7A. China's Trade Balance with East Asia

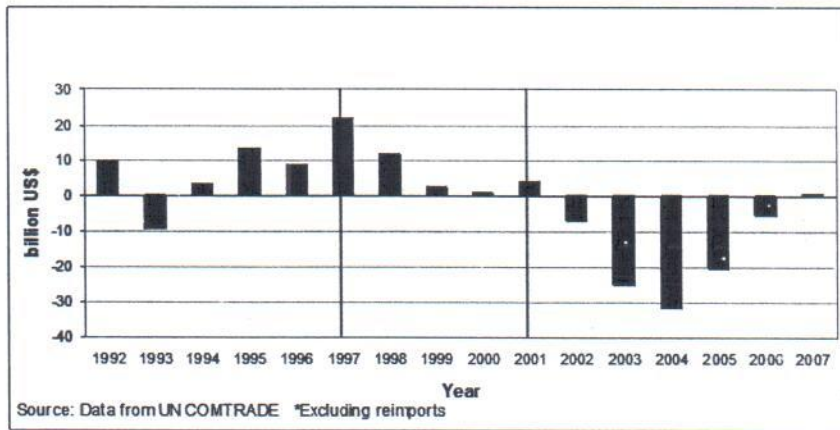


Chart 7B. China's Trade Balance with East Asia (with re-imports)

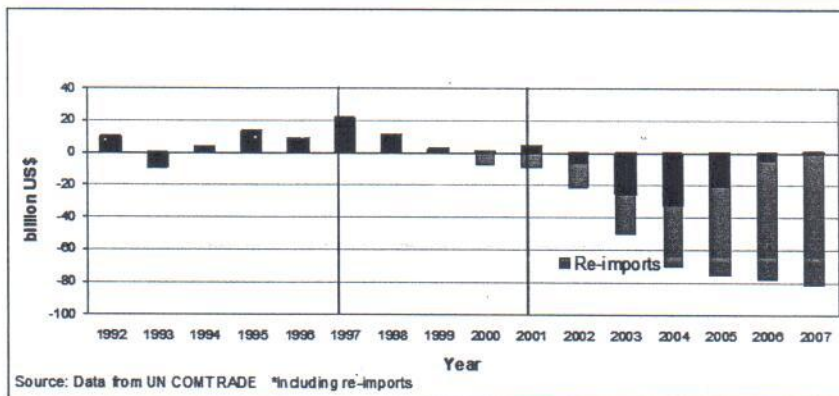


Chart 8A. China's Trade by Partner

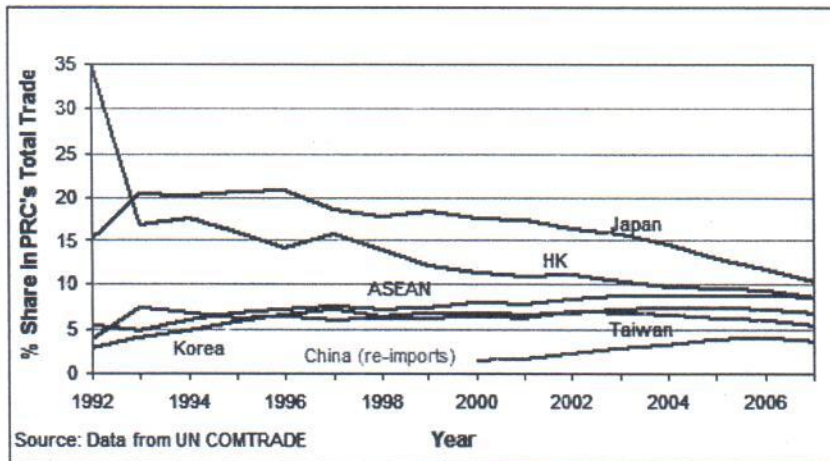


Chart 8B. China's Trade Balance by Partner

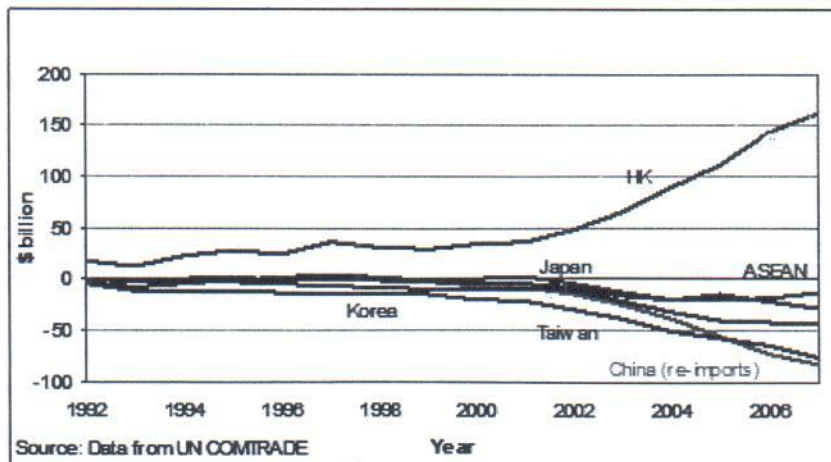


Chart 8C. China's Exports by Partner

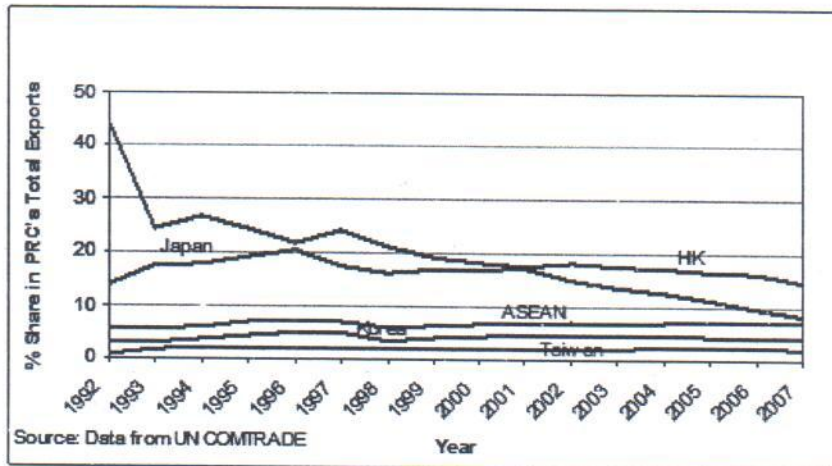


Chart 8D. China's Imports by Partner

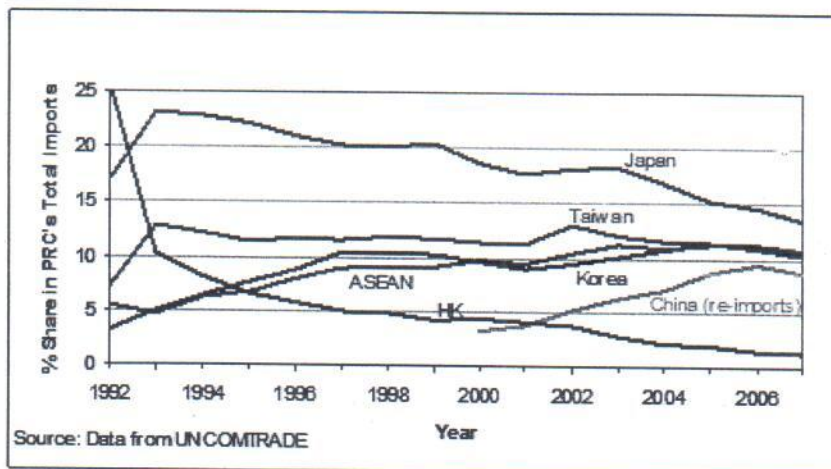


Chart 9A. China's Trade Balance with East Asia by Product

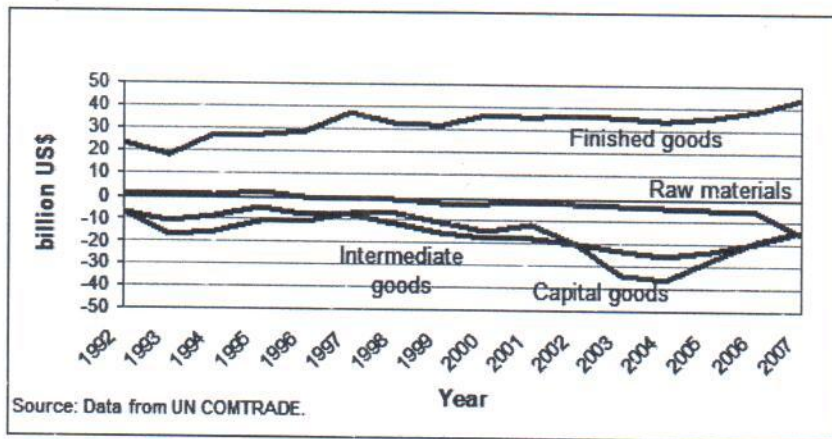


Chart 9B. China's Exports to East Asia by Product

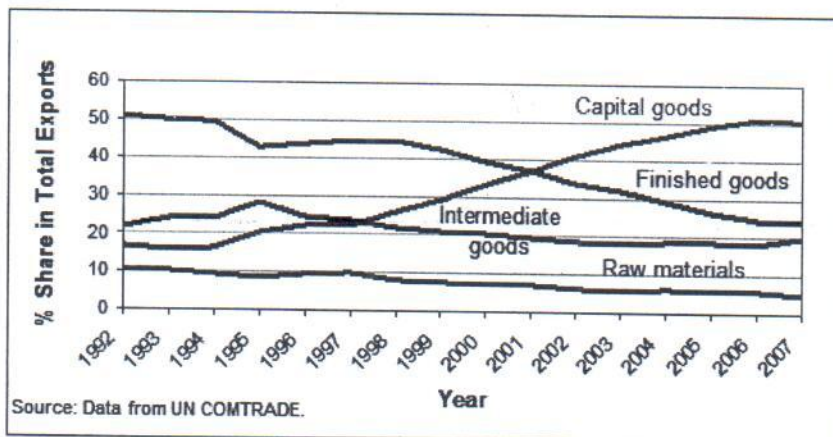


Chart 9C. China's Imports from East Asia by Product

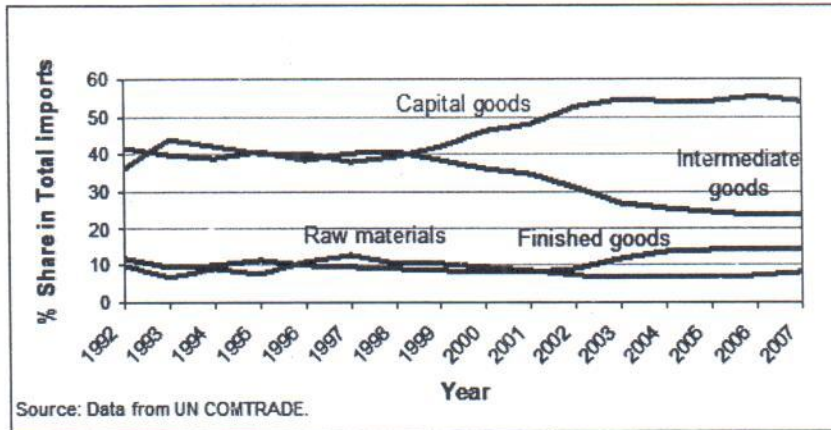


Chart 10A. China's Trade Balance with ASEAN4 by Product

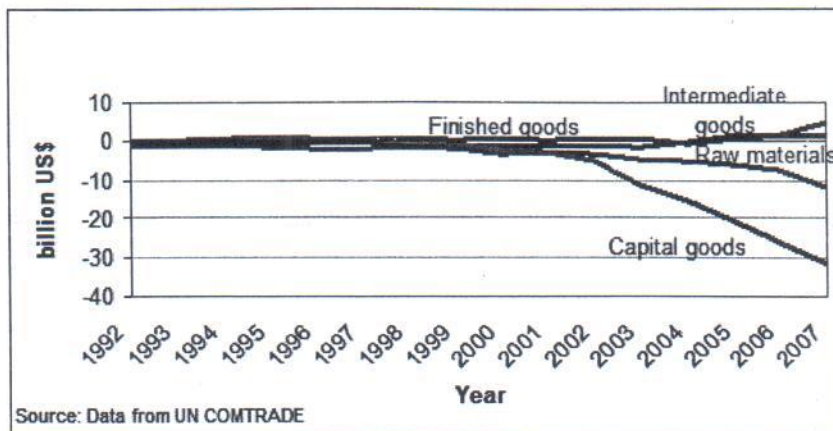


Chart 10B. China's Exports to ASEAN4 by Product

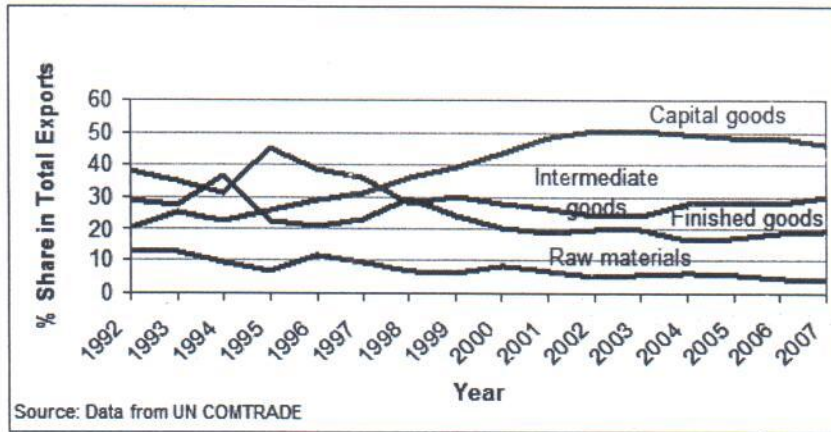
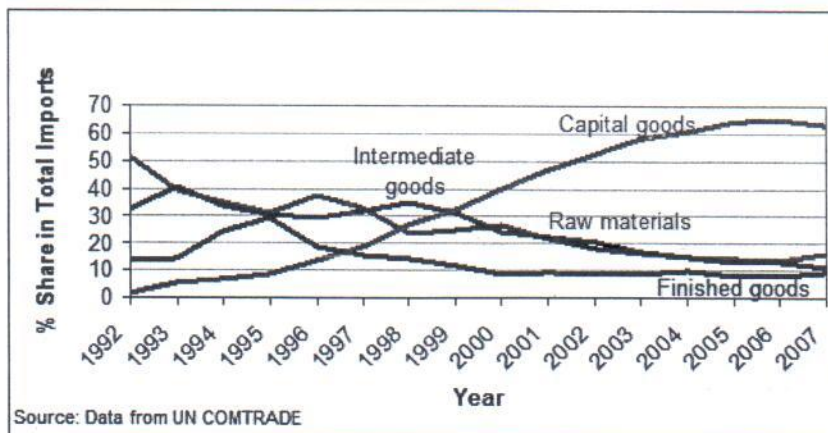


Chart 10C. China's Imports from ASEAN4 by Product



	Imports	Exports	Balance	Total	%
Iron and steel	22	48	26	70	16
Chemicals	105	60	-45	165	39
Chemicals	28	93	65	121	28
Semi-manufactures	13	56	43	69	17
Total	168	258	-89	425	100

Source: Data from UN COMTRADE

IMPORTS		EXPORTS			
\$M	%	\$M	%		
175675	100	Product	257831	100	Product
11583	7	hydrocarbons, nes, derivts	16269	6	manufacts. base metal, nes.
11286	6	oth. plastic, primary form	13435	5	textile articles, nes
9519	5	alcohol, phenol, etc. deriv	11227	4	tubes, pipes, etc. iron, stl
9194	5	carboxylic acids, derivts	10777	4	iron stl bar, shapes, etc
7238	4	misc. chemical prods.	10024	4	fabrics, stl. bar, shapes, etc.
6873	4	polymers of ethylene	9258	4	flat-rolled iron, etc.
6713	4	polyacetal, polycarbonate	8521	3	cotton fabrics, woven
6689	4	flat-rolled, alloy steel	7957	3	textile yarn
6095	3	plastic plate, sheets, etc.	7828	3	metallic structures
5910	3	polymers of styrene	7534	3	rubber tyres, tubes, etc.

Source: Data from UN COMTRADE

	Imports	Exports	Balance	Total	%
Office & telecomms	219	326	108	545	57
Other mach.	144	171	26	315	33
Transport equipt.	42	59	17	101	10
Total	405	556	152	961	100

Source: Data from UN COMTRADE

Table 4. Intra-regional Trade in East Asia

	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007
Intra-regional trade shares in East Asia (Intraregional trade / Total trade) %	41	49.8	50.7	50.4	52.3	53.5	53.6	53.1	52.4	51.9
Intra-regional trade in East Asia (X+M)/2, in billion US\$	286	646	802	732	812	985	1236	1403	1604	1838
Total trade in East Asia (X+M)/2 in billion US\$	688	1298	1582	1452	1553	1842	2304	2642	3061	3544

Sources: IMF *Direction of Trade Statistics*, Bureau of Foreign Trade of Taiwan website, and UN COMTRADE

Table 5. 2007 Network of Trade (X+M)/2 in East Asia

Country	ASEAN	Japan	Korea	China	HK	Taiwan	East Asia	World
ASEAN in billion US\$	216	93	37	99	37	29	511	851
<i>share in ASEAN trade</i>	25	11	4	12	4	3	60	100
Japan in billion US\$	87		41	119	20	32	299	668
<i>share in Japan trade</i>	13	0	6	18	3	5	45	100
Korea in billion US\$	38	42		77	11	11	180	364
<i>share in Korea trade</i>	10	12	0	21	3	3	49	100
China in billion US\$	100	118	80		100	62	460	1088
<i>share in China trade</i>	9	11	7	0	9	6	42	100
Hong Kong in billion US\$	37	25	12	160		17	251	341
<i>share in Hong Kong trade</i>	11	7	3	47	0	5	74	100
Taiwan in billion US\$	30	31	11	45	20		138	233
<i>share in Taiwan trade</i>	13	13	5	19	9	0	59	100
East Asia in billion US\$	508	309	182	500	188	152	1838	3544
<i>share in East Asia trade</i>	14	9	5	14	5	4	52	100
World in billion US\$	835	672	362	1182	251	233	3536	14136
<i>share in World trade</i>	6	5	3	8	2	2	25	100

Source: IMF *Direction of Trade Statistics*, Bureau of Foreign Trade of Taiwan website, and UN COMTRADE

Table 6. 2002 Network of Trade (X+M)/2 in East Asia								
Country	ASEAN	Japan	Korea	China	HK	Taiwan	East Asia	World
ASEAN in billion US\$	86	55	17	24	17	18	216	379
<i>share in ASEAN trade</i>	23	14	5	6	4	5	57	100
Japan in billion US\$	54		22	51	13	20	160	377
<i>share in Japan trade</i>	14	0	6	13	4	5	42	100
Korea in billion US\$	18	22		21	6	6	72	157
<i>share in Korea trade</i>	11	14	0	13	4	4	43	100
China in billion US\$	27	51	22		35	22	157	311
<i>share in China trade</i>	9	16	7	0	11	7	51	100
Hong Kong in billion US\$	18	17	7	85		10	137	204
<i>share in Hong Kong trade</i>	9	8	3	42	0	5	67	100
Taiwan in billion US\$	17	20	6	9	17		69	124
<i>share in Taiwan trade</i>	13	16	5	7	14	0	55	100
East Asia in billion US\$	219	165	74	190	88	75	812	1553
<i>share in East Asia trade</i>	14	11	5	12	6	5	52	100
World in billion US\$	384	382	156	376	126	135	1559	6530
<i>share in World trade</i>	6	6	2	6	2	2	24	100

Source: IMF *Direction of Trade Statistics*, Bureau of Foreign Trade of Taiwan website, and UN COMTRADE

	Table 7. East Asia as a Share of Total Trade													
	Total Trade (X+M)					EXPORTS					IMPORTS			
	1992	1997	2002	2007		1992	1997	2002	2007		1992	1997	2002	2007
China, in \$B	167	325	621	2,176		86	183	326	1,223		82	142	295	953
ASEAN as % of EA	9	14	17	22		8	13	15	20		9	16	19	23
EA as % of Total	62	56	51	42		67	55	47	38		58	56	55	48
Japan, in \$B	573	760	754	1,336		340	421	417	714		233	339	337	622
ASEAN as % of EA	40	41	34	29		37	41	32	26		45	41	36	33
EA as % of Total	32	39	42	45		33	41	42	47		31	36	43	42
Hong Kong, in \$B	243	396	408	682		120	188	200	294		123	209	208	387
ASEAN as % of EA	12	14	13	15		14	13	11	11		10	14	14	17
EA as % of Total	62	63	67	74		47	52	55	63		76	74	79	81
Korea, in \$B	160	289	314	728		77	144	162	363		83	145	152	364
ASEAN as % of EA	25	28	24	21		29	31	25	21		22	23	24	21
EA as % of Total	40	41	46	49		41	45	46	51		39	37	46	48
Singapore, in \$B	136	258	242	562		63	125	125	299		72	133	116	263
ASEAN as % of EA	42	46	46	47		49	50	47	50		36	41	46	43
EA as % of Total	50	55	58	61		46	55	58	63		54	55	57	58
Taiwan, in \$B	153	236	249	466		81	122	135	247		72	114	113	219
ASEAN as % of EA	22	26	24	22		25	27	22	23		19	25	27	21
EA as % of Total	44	48	55	59		42	49	56	65		46	47	54	52
Malaysia, in \$B	81	158	173	323		41	79	93	176		40	79	80	147

	Total Trade (X+M)											
	EXPORTS						IMPORTS					
	1992	1997	2002	2007	1992	1997	2002	2007	1992	1997	2002	2007
ASEAN as % of EA	44	43	42	43	54	50	47	47	35	35	37	38
EA as % of Total	58	57	59	59	55	56	56	35	60	58	62	64
Thailand, in \$B	73	122	134	294	32	58	69	152	41	63	65	141
ASEAN as % of EA	27	33	34	35	33	43	40	40	23	25	29	30
EA as % of Total	49	50	53	56	40	49	50	53	57	51	57	59
Indonesia, in \$B	61	95	88	244	34	53	57	129	27	42	31	115
ASEAN as % of EA	21	29	34	47	22	30	31	34	21	28	41	58
EA as % of Total	55	53	55	63	62	58	57	57	47	47	53	70
Philippines, in \$B	24	64	71	137	10	25	35	67	15	39	35	71
ASEAN as % of EA	19	28	29	28	17	32	30	23	20	26	28	33
EA as % of Total	43	48	55	67	34	42	52	71	48	51	57	62
Viet Nam, in \$B	6	21	36	108	3	9	17	46	3	12	20	62
ASEAN as % of EA	43	36	31	38	31	35	30	40	58	37	32	38
EA as % of Total	59	69	63	54	64	62	48	36	55	71	76	67
Cambodia, in \$B	1	2	3	9	0	1	1	4	1	1	2	5
ASEAN as % of EA	62	59	42	56	91	82	70	45	57	45	39	58
EA as % of Total	88	68	52	53	74	73	9	13	91	65	90	81

	Table 7. East Asia as a Share of Total Trade																
	Total Trade (X+M)							EXPORTS							IMPORTS		
	1992	1997	2002	2007	1992	1997	2002	2007	1992	1997	2002	2007	1992	1997	2002	2007	
Myanmar, in \$B	2	4	6	10	1	1	3	5	1	3	3	5	1	3	3	5	
ASEAN as % of EA	44	53	58	61	35	49	76	75	48	54	49	51	48	54	49	51	
EA as % of Total	70	75	69	77	53	42	50	66	81	88	87	88	81	88	87	88	
Brunei, in \$B	6	7	5	10	4	4	3	7	2	3	2	2	2	3	2	2	
ASEAN as % of EA	36	39	38	46	27	22	25	36	62	69	64	82	62	69	64	82	
EA as % of Total	81	82	79	77	96	95	78	78	57	66	83	73	57	66	83	73	
Lao PDR, in \$B	0	1	1	3	0	0	0	1	0	0	0	2	0	0	1	2	
ASEAN as % of EA	69	91	86	86	71	81	89	85	69	92	86	86	69	92	86	86	
EA as % of Total	80	73	72	79	62	22	42	58	88	97	89	91	88	97	89	91	
EAST ASIA, in \$B	1,688	2,739	3,105	7,088	892	1,415	1,645	3,729	795	1,324	1,460	3,359	795	1,324	1,460	3,359	
ASEAN as % of EA	26	29	27	28	28	32	27	27	24	27	27	28	24	27	27	28	
EA as % of Total	46	50	52	52	43	49	49	49	49	50	56	55	49	50	56	55	

Source: IMF Direction of Statistics; Bureau of Foreign of Taiwan website, and UN COMTRADE.

	1990	1995	2000	2005	2006	2007
Intra-regional trade (X+M)/2 in US\$B	285.5	646.4	801.6	1402.7	1603.8	1837.7
Share: % of total						
Japan	26%	24%	22%	18%	17%	16%
Korea	8%	9%	9%	9%	9%	10%
China	12%	12%	15%	23%	24%	25%
Hong Kong	17%	18%	17%	15%	15%	14%
Taiwan	8%	8%	9%	8%	8%	7%
ASEAN	28%	29%	28%	26%	28%	28%
Brunei Darussalam	0%	0%	0%	0%	0%	0%
Cambodia	0%	0%	0%	0%	0%	0%
Indonesia	5%	3%	3%	3%	4%	4%
Lao PDR	0%	0%	0%	0%	0%	0%
Malaysia	6%	7%	6%	5%	5%	5%
Myanmar	0%	0%	0%	0%	0%	0%
Philippines	2%	2%	2%	2%	2%	2%
Singapore	10%	11%	10%	9%	10%	9%
Thailand	5%	5%	4%	5%	5%	4%
Viet Nam	0%	1%	1%	2%	2%	2%

Source: IMF *Direction of Trade Statistics*, Bureau of Foreign Trade of Taiwan website, and UN COMTRADE

COUNTRY NAME	1990	1995	2000	2005	2006	2007
China, million US\$	116,570	281,123	474,383	1,422,555	1,761,077	2,175,630
<i>Trade with Japan %</i>	14	20	18	13	12	11
Japan, million US\$	523,173	779,433	857,938	1,110,081	1,225,483	1,336,124
<i>Trade with China %</i>	3	7	10	17	17	18
Korea, million US\$	142,220	266,440	332,738	545,548	578,539	727,545
<i>Trade with Japan %</i>	22	19	16	13	12	12
<i>Trade with China %</i>	0	6	9	18	19	21
Hong Kong, million US\$	164,762	366,321	415,577	589,476	651,510	681,565
<i>Trade with Japan %</i>	11	11	9	8	8	7
<i>Trade with China %</i>	31	35	39	45	46	47
Singapore, million US\$	113,764	242,618	272,679	429,644	510,854	562,498
<i>Trade with Japan %</i>	15	15	12	7	7	6

Table 8A. Share of China and of Japan in Each Country's Trade						
COUNTRY NAME	1990	1995	2000	2005	2006	2007
Trade with China %	3	3	5	9	11	11
Taiwan, million US\$	121,929	215,204	288,321	381,035	426,708	465,922
Trade with Japan %	20	20	19	15	15	13
Trade with China %	0	2	4	17	18	19
Malaysia, million US\$	58,594	151,359	180,358	254,586	291,141	323,189
Trade with Japan %	20	20	17	12	11	11
Trade with China %	2	2	3	9	9	11
Thailand, million US\$	56,486	135,786	130,886	228,301	261,160	293,805
Trade with Japan %	25	23	19	18	16	16
Trade with China %	2	3	5	9	10	11
Indonesia, million US\$	47,688	86,083	95,633	143,323	206,162	244,128
Trade with Japan %	34	25	21	17	15	14
Trade with China %	3	4	5	9	9	10
Philippines, million US\$	21,189	45,676	72,707	88,629	98,508	137,419
Trade with Japan %	19	20	17	17	15	13
Trade with China %	1	2	2	8	8	20
Viet Nam, million US\$	5,367	13,980	30,119	69,208	84,481	108,132
Trade with Japan %	9	17	16	12	11	11
Trade with China %	0	5	10	13	12	14
Myanmar, million US\$	1,076	3,539	5,019	7,271	8,166	9,930
Trade with Japan %	13	7	6	4	4	5
Trade with China %	16	23	13	18	19	22
Brunei, million US\$	3,212	6,348	4,589	7,302	8,699	9,671
Trade with Japan %	45	34	29	30	25	25
Trade with China %	1	1	2	3	4	3
Cambodia, million US\$	98	1,931	2,547	5,562	6,547	9,462
Trade with Japan %	8	5	3	3	3	3
Trade with China %	4	3	5	8	8	10
Lao PDR, million US\$	213	900	1,081	1,967	2,772	3,270
Trade with Japan %	12	6	3	1	1	2
Trade with China %	10	3	4	7	8	8
EAST ASIA, billion US\$	1,376	2,597	3,165	5,284	6,122	7,088
Trade with Japan %	11	12	11	10	9	9
Trade with China %	6	9	10	14	14	14

Source: IMF *Direction of Trade Statistics*, Bureau of Foreign Trade of Taiwan website, and UN COMTRADE

	1990	1995	2000	2005	2006	2007
World (X+M, US\$ billion)	116.6	281.1	474.4	1422.6	1761.1	2175.6
East Asia (X+M, US\$ billion)	69.1	157.3	241.7	655.0	776.9	920.4
% of trade with East Asia	59%	56%	51%	46%	44%	42%
Brunei Darussalam	0	0	0	0	0	0
Cambodia	0	0	0	0	0	0
Indonesia	2	2	3	3	2	3
Lao PDR	0	0	0	0	0	0
Malaysia	2	2	3	5	5	5
Myanmar	1	0	0	0	0	0
Philippines	0	1	1	3	3	3
Singapore	4	4	4	5	5	5
Thailand	2	2	3	3	4	4
Viet Nam	0	1	1	1	1	2
Japan	24	37	34	28	27	26
Korea	1	11	14	17	17	17
Hong Kong	60	28	22	21	21	22
Taiwan	4	11	13	14	14	14

Source: IMF *Direction of Trade Statistics*, Bureau of Foreign Trade of Taiwan website, and UN COMTRADE

	Export					Import (excluding reimport)					Trade Balance (X-M exc. reimport)				
	1992	1997	2002	2007		1992	1997	2002	2007		1992	1997	2002	2007	
Total	84940	181946	322614	1217776		80585	139809	272390	870183		4355	42137	50224	347583	
Raw materials	8090	13455	13820	38427		11368	24616	42505	225409		(3278)	(11160)	(28685)	(186982)	
Fuels and mining	6128	10774	11188	32732		7436	17165	36579	192576		(1307)	(6392)	(19391)	(159844)	
Raw materials	1962	2682	2632	5695		3933	7450	11926	32833		(1971)	(4768)	(9294)	(27138)	
Intermediate goods	19754	41256	63853	257831		28398	45772	73118	167924		(8644)	(4516)	(9265)	90007	
Iron and steel	1321	3618	2866	48475		4431	4102	9537	21819		(3109)	(483)	(6671)	26655	
Chemicals	4349	10227	15325	60289		11183	19297	38805	105036		(6834)	(9070)	(23280)	(44747)	
Semi-manufactures	5500	13583	25100	93100		5224	10107	13731	27648		276	3476	11370	65462	
Textiles	8883	13828	20562	59968		7560	12267	11246	13321		1023	1561	9316	42847	
Capital goods	13203	43709	126976	556235		30759	52774	126348	344594		(17556)	(9065)	628	211641	
Office & telecomms	5324	21493	75522	306437		6380	16896	59531	177750		(1056)	4797	15990	148687	
Transport equipment	2161	5271	11183	59125		6824	6229	13512	41508		(4663)	(958)	(2328)	17617	
Other machineries	5719	16945	40271	170674		17556	29849	53305	125336		(11837)	(12906)	(13033)	45338	
Finished goods	43893	83526	117964	365282		10060	16647	30419	132356		33833	66879	87545	232926	
Arms and ammunition	51	20	18	59		2	5	4	2		50	16	14	57	
Commodities n.e.c.	406	358	648	41823		591	936	1563	30595		(185)	(577)	(915)	11228	
Clothing	16704	31803	41302	115238		439	1117	1329	1787		16265	30696	36972	113450	
Other manufactures	17095	38294	59833	175003		5087	7407	17637	67577		12008	30887	42196	107426	
Food	9637	13050	16164	33160		3941	7182	9886	32395		5896	5888	6278	765	

Source: Data from UN COMTRADE

Table 10B. China's Exports and Imports by Product (shares)								
	Export				Import (excluding reimport)			
	1992	1997	2002	2007	1992	1997	2002	2007
Total	9.5	7.4	4.3	3.2	14.1	17.6	15.6	25.9
Raw materials	9.5	7.4	4.3	3.2	14.1	17.6	15.6	25.9
Fuels and mining	7.2	5.9	3.5	2.7	9.2	12.3	11.2	22.1
Raw materials	2.3	1.5	0.8	0.5	4.9	5.3	4.4	3.8
Intermediate goods	23.3	22.7	19.8	21.2	35.2	32.7	26.8	19.3
Iron and steel	1.6	2.0	0.9	4.0	5.5	2.9	3.5	2.5
Chemicals	5.1	5.6	4.8	5.0	13.9	13.8	14.2	12.1
Semi-manufactures	6.5	7.5	7.8	7.6	6.5	7.2	5.0	3.2
Textiles	10.1	7.6	6.4	4.6	9.4	8.8	4.1	1.5
Capital goods	15.5	24.0	39.4	45.7	38.2	37.7	46.4	39.6
Office & telecomms	6.3	11.8	23.4	26.8	7.9	11.9	21.9	20.4
Transport equipment	2.5	2.9	3.5	4.9	8.5	4.5	5.0	4.8
Other machineries	6.7	9.3	12.5	14.0	21.8	21.3	19.6	14.4
Finished goods	51.7	45.9	36.6	30.0	12.5	11.9	11.2	15.2
Arms and ammunition	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Commodities n.e.c.	0.5	0.2	0.2	3.4	0.7	0.7	0.6	3.5
Clothing	19.7	17.5	12.8	9.5	0.5	0.8	0.5	0.2
Other manufactures	20.1	21.0	18.5	14.4	6.3	5.3	6.5	7.8
Food	11.3	7.2	5.0	2.7	4.9	5.1	3.6	3.7

Source: Data from UN COMTRADE

Table 10C. China's Total Trade by Product (values and shares)

	Total Trade (X+M excluding reimport) in million US\$					Shares				
	1992	1997	2002	2007		1992	1997	2002	2007	
Total	165525	321755	595004	2087959		100.0	100.0	100.0	100.0	
Raw materials	19459	38071	56326	263836		11.8	11.8	9.5	12.6	
Fuels and mining	13564	27939	41767	225307		8.2	8.7	7.0	10.8	
Raw materials	5895	10132	14558	38529		3.6	3.1	2.4	1.8	
Intermediate goods	48152	87029	136971	425655		29.1	27.0	23.0	20.4	
Iron and steel	5752	7720	12402	70294		3.5	2.4	2.1	3.4	
Chemicals	15532	29524	53929	165325		9.4	9.2	9.1	7.9	
Semi-manufactures	10724	23689	38831	120748		6.5	7.4	6.5	5.8	
Textiles	16143	26095	31808	69289		9.8	8.1	5.3	3.3	
Capital goods	43963	96482	253324	900829		26.6	30.0	42.6	43.1	
Office & telecomms	11703	38189	135053	504187		7.1	11.9	22.7	24.1	
Transport equipment	8884	11499	24695	100632		5.4	3.6	4.2	4.8	
Other machineries	23275	46794	93576	296010		14.1	14.5	15.7	14.2	
Finished goods	53952	100173	148383	497638		32.6	31.1	24.9	23.8	
Arms and ammunition	53	25	22	61		0.0	0.0	0.0	0.0	
Commodities n.e.c.	997	1294	2211	72418		0.6	0.4	0.4	3.5	
Clothing	17143	32921	42631	117025		10.4	10.2	7.2	5.6	
Other manufactures	22183	45701	77470	242580		13.4	14.2	13.0	11.6	
Food	13578	20233	26050	65555		8.2	6.3	4.4	3.1	

Source: Data from UN COMTRADE

	2000	2001	2002	2003	2004	2005	2006	2007
Raw materials	370	368	599	916	1378	1363	1936	1643
Fuels and mining	346	348	569	888	1344	1310	1884	1597
Raw materials	24	19	30	27	34	53	53	46
Intermediate goods	1962	2184	2860	3804	4633	5683	6934	7851
Iron and steel	123	189	132	157	226	291	300	476
Chemicals	307	328	431	602	943	1340	1750	2384
Semi-manufactures	279	300	482	782	1014	1319	1672	1666
Textiles	1253	1367	1814	2262	2449	2732	3212	3324
Capital goods	4349	5627	10662	18279	28255	40065	54210	60116
Office & telecomms	2760	3640	6880	12575	19503	28519	39223	40810
Transport equipment	15	15	32	35	69	64	84	183
Other machinery	1574	1972	3750	5669	8683	11482	14903	19123
Finished goods	479	572	837	2058	4306	7888	10080	16163
Arms and ammunition	0		0	0	0		0	0
Commodities n.e.c.	0	0	1	3	5	8	13	3590
Clothing	18	16	27	42	55	90	131	189
Other manufactures	443	537	804	2002	4224	7777	9907	12357
Food	17	18	5	11	22	14	29	27
Total	7159	8751	14958	25057	38572	54999	73161	85773

Source: Data from UN COMTRADE

	Value in billion US\$				Share of Total Export/Import			
	Export		Import		Export		Import	
	Ordinary	Processing	Ordinary	Processing	Ordinary	Processing	Ordinary	Processing
1992	44	40	34	32	0.51	0.47	0.42	0.39
1993	43	44	38	36	0.47	0.48	0.37	0.35
1994	62	57	36	48	0.51	0.47	0.31	0.41
1995	71	74	43	58	0.48	0.50	0.33	0.44
1996	63	84	39	62	0.42	0.56	0.28	0.45
1997	78	100	39	70	0.43	0.55	0.27	0.49
1998	74	104	44	69	0.40	0.57	0.31	0.49
1999	79	111	67	74	0.41	0.57	0.40	0.44

	Value in billion US\$				Share of Total Export/Import			
	Export		Import		Export		Import	
	Ordinary	Processing	Ordinary	Processing	Ordinary	Processing	Ordinary	Processing
2000	105	138	100	93	0.42	0.55	0.44	0.41
2001	112	147	114	94	0.42	0.55	0.47	0.39
2002	136	180	129	122	0.42	0.55	0.44	0.41
2003	182	242	188	163	0.42	0.55	0.45	0.39
2004	244	328	248	222	0.41	0.55	0.44	0.39
2005	315	417	280	274	0.41	0.55	0.42	0.42
2006	416	510	333	322	0.43	0.53	0.42	0.41

Source: Feenstra and Wei (2009), Table 1

	Animals, Food	Minerals, Wood	Chem's, Plastics	Textiles	Footwear, Headgear	Metals, Articles	Machinery, Electrical	Transport	Misc. Manufact.
1992	9.1	7.8	3.9	13.9	0.9	2.6	2.8	0.8	1.5
1993	8.0	6.9	4.1	14.9	1.1	2.4	3.0	0.6	1.8
1994	10.5	8.2	5.8	22.8	1.7	3.7	4.4	0.8	3.3
1995	10.1	11.1	8.2	22.1	2.1	6.0	6.3	1.2	4.0
1996	9.6	10.5	7.6	18.1	2.0	5.0	5.1	1.0	3.6
1997	10.4	12.2	8.9	24.9	2.6	6.5	6.0	1.1	5.1
1998	10.1	10.4	8.7	22.9	2.6	6.7	6.1	1.1	5.1
1999	9.7	10.4	9.2	23.9	2.8	7.4	8.4	1.5	5.7
2000	11.5	14.2	11.2	31.1	3.6	10.4	12.0	2.7	8.0
2001	11.8	15.2	12.2	32.5	4.0	10.1	14.1	3.1	8.4
2002	13.3	16.5	14.4	41.3	5.0	11.8	18.9	3.6	11.0
2003	16.2	21.2	18.5	55.2	6.4	15.9	27.8	5.5	14.7
2004	16.8	27.8	24.9	67.8	8.3	30.1	39.4	8.1	19.5
2005	19.9	34.4	33.0	84.1	10.8	40.5	53.6	12.0	25.4
2006	22.8	39.0	40.3	108.2	13.1	65.2	76.4	17.0	32.4

Source: China Customs Statistics (1992-2006)

	Animals, Food	Minerals, Wood	Chem'l's, Plastics	Textiles	Footwear, Headgear	Metals, Articles	Machinery, Electrical	Transport	Misc. Manufact.
1992	0.21	0.18	0.09	0.32	0.02	0.06	0.06	0.02	0.03
1993	0.18	0.16	0.10	0.35	0.03	0.06	0.07	0.01	0.04
1994	0.17	0.13	0.09	0.37	0.03	0.06	0.07	0.01	0.05
1995	0.14	0.16	0.11	0.31	0.03	0.08	0.09	0.02	0.06
1996	0.15	0.17	0.12	0.29	0.03	0.08	0.08	0.02	0.06
1997	0.13	0.16	0.11	0.32	0.03	0.08	0.08	0.01	0.07
1998	0.14	0.14	0.12	0.31	0.04	0.09	0.08	0.01	0.07
1999	0.12	0.13	0.12	0.30	0.04	0.09	0.11	0.02	0.07
2000	0.11	0.13	0.11	0.30	0.03	0.10	0.11	0.03	0.08
2001	0.11	0.14	0.11	0.29	0.04	0.09	0.13	0.03	0.08
2002	0.10	0.12	0.11	0.30	0.04	0.09	0.14	0.03	0.08
2003	0.09	0.12	0.10	0.30	0.04	0.09	0.15	0.03	0.08
2004	0.07	0.11	0.10	0.28	0.03	0.12	0.16	0.03	0.08
2005	0.06	0.11	0.10	0.27	0.03	0.13	0.17	0.04	0.08
2006	0.05	0.09	0.10	0.26	0.03	0.16	0.18	0.04	0.08

Source: *China Customs Statistics (1992-2006)*

	Animals, Food	Minerals, Wood	Chem'l's, Plastics	Textiles	Footwear, Headgear	Metals, Articles	Machinery, Electrical	Transport	Misc. Manufact.
1992	0.8	1.7	2.0	13.1	4.1	1.8	8.6	1.4	6.0
1993	0.9	1.8	2.2	13.5	5.1	2.0	10.6	1.1	6.9
1994	1.9	2.5	3.0	15.7	5.6	2.9	15.2	1.8	8.4
1995	2.3	2.9	4.2	18.8	6.0	5.9	20.8	2.7	10.1
1996	2.9	3.3	4.8	21.9	6.4	5.2	25.2	3.0	11.6
1997	2.9	4.2	5.7	24.0	7.2	6.7	31.4	3.9	13.6
1998	2.5	3.8	6.4	22.9	7.1	5.6	36.4	5.0	14.6
1999	2.5	4.3	6.7	22.7	6.9	5.0	42.8	4.7	15.3
2000	2.7	5.5	8.0	25.0	7.1	6.0	59.5	6.1	17.8
2001	3.1	5.5	8.5	24.9	7.1	5.7	68.7	5.9	17.8
2002	3.5	6.7	9.7	24.7	7.1	6.8	93.9	6.5	20.9
2003	3.7	8.0	11.7	27.3	7.6	8.5	139.7	9.6	25.3

Table 12C. Processing Exports By Major Industries (Billions of US dollars)

	Animals, Food	Minerals, Wood	Chem'ls, Plastics	Textiles	Footwear, Headgear	Metals, Articles	Machinery, Electrical	Transport	Misc. Manufact.
2004	4.9	10.7	15.4	31.3	8.3	12.1	199.9	12.2	32.8
2005	5.8	14.1	20.3	33.9	9.2	14.4	258.3	15.4	44.8
2006	6.6	17.0	24.7	38.4	10.0	16.1	323.4	19.9	53.6

Source: China Customs Statistics (1992-2006)

Table 12D. Processing Exports By Major Industries (Share of Total Value)

	Animals, Food	Minerals, Wood	Chemicals, Plastics	Textiles	Footwear, Headgear	Metals, Articles	Machinery, Electrical	Transport	Misc. Manufact.
1992	0.02	0.04	0.05	0.33	0.10	0.05	0.22	0.03	0.15
1993	0.02	0.04	0.05	0.30	0.11	0.05	0.24	0.03	0.16
1994	0.03	0.04	0.05	0.28	0.10	0.05	0.27	0.03	0.15
1995	0.03	0.04	0.06	0.26	0.08	0.08	0.28	0.04	0.14
1996	0.03	0.04	0.06	0.26	0.08	0.06	0.30	0.04	0.14
1997	0.03	0.04	0.06	0.24	0.07	0.07	0.31	0.04	0.14
1998	0.02	0.04	0.06	0.22	0.07	0.05	0.35	0.05	0.14
1999	0.02	0.04	0.06	0.20	0.06	0.05	0.39	0.04	0.14
2000	0.02	0.04	0.06	0.18	0.05	0.04	0.43	0.04	0.13
2001	0.02	0.04	0.06	0.17	0.05	0.04	0.47	0.04	0.12
2002	0.02	0.04	0.05	0.14	0.04	0.04	0.52	0.04	0.12
2003	0.02	0.03	0.05	0.11	0.03	0.04	0.58	0.04	0.10
2004	0.01	0.03	0.05	0.10	0.03	0.04	0.61	0.04	0.10
2005	0.01	0.03	0.05	0.08	0.02	0.03	0.62	0.04	0.11
2006	0.01	0.03	0.05	0.08	0.02	0.03	0.63	0.04	0.10

Source: China Customs Statistics (1992-2006)

Table 12E: Ordinary Imports By Major Industries (Billions of US dollars)

	Animals, Food	Minerals, Wood	Chemicals, Plastics	Textiles	Footwear, Headgear	Metals, Articles	Machinery, Electrical	Transport	Misc. Manufact.
1992	3.0	5.3	6.4	1.4	0.0	4.2	9.3	2.8	1.2
1993	1.8	7.2	3.8	0.5	0.0	8.2	11.6	3.5	1.2
1994	2.8	5.1	4.3	1.1	0.0	4.8	13.0	3.1	1.2
1995	5.7	5.8	6.3	1.3	0.0	3.5	15.8	3.3	1.6
1996	5.5	7.5	6.5	1.0	0.0	3.4	10.9	3.3	1.2
1997	4.5	10.8	6.2	0.6	0.0	3.0	10.4	2.2	1.2

Table 12E: Ordinary Imports By Major Industries (Billions of US dollars)

	Animals, Food	Minerals, Wood	Chemicals, Plastics	Textiles	Footwear, Headgear	Metals, Articles	Machinery, Electrical	Transport	Misc. Manufact.
1998	4.7	9.2	7.2	0.6	0.0	3.4	14.5	2.6	1.5
1999	5.4	14.3	12.2	0.9	0.0	6.1	22.8	2.9	2.4
2000	7.6	27.9	16.7	1.9	0.0	8.8	29.8	3.8	3.2
2001	7.6	26.2	18.5	2.1	0.0	11.0	36.3	6.4	5.2
2002	7.8	28.4	22.0	2.5	0.1	13.6	42.1	7.2	5.1
2003	12.3	42.5	29.6	3.6	0.1	22.1	58.3	11.8	7.3
2004	17.6	69.7	40.7	5.9	0.2	25.1	67.0	13.0	8.9
2005	17.2	90.1	47.4	6.3	0.2	29.2	65.7	12.8	10.2
2006	17.9	117.7	53.6	7.9	0.3	26.5	77.2	19.6	12.0

Source: *China Customs Statistics* (1992-2006)

Table 12F: Ordinary Imports By Major Industries (Share of Total Value)

	Animals, Food	Minerals, Wood	Chemicals, Plastics	Textiles	Footwear, Headgear	Metals, Articles	Machinery, Electrical	Transport	Misc. Manufact.
1992	0.09	0.16	0.19	0.04	0.00	0.12	0.28	0.08	0.04
1993	0.05	0.19	0.10	0.01	0.00	0.22	0.30	0.09	0.03
1994	0.08	0.14	0.12	0.03	0.00	0.14	0.37	0.09	0.03
1995	0.13	0.13	0.15	0.03	0.00	0.08	0.36	0.08	0.04
1996	0.14	0.19	0.16	0.03	0.00	0.09	0.28	0.08	0.03
1997	0.12	0.28	0.16	0.02	0.00	0.08	0.27	0.06	0.03
1998	0.11	0.21	0.16	0.01	0.00	0.08	0.33	0.06	0.04
1999	0.08	0.21	0.18	0.01	0.00	0.09	0.34	0.04	0.04
2000	0.08	0.28	0.17	0.02	0.00	0.09	0.30	0.04	0.03
2001	0.07	0.23	0.16	0.02	0.00	0.10	0.32	0.06	0.05
2002	0.06	0.22	0.17	0.02	0.00	0.11	0.33	0.06	0.04
2003	0.07	0.23	0.16	0.02	0.00	0.12	0.31	0.06	0.04
2004	0.07	0.28	0.16	0.02	0.00	0.10	0.27	0.05	0.04
2005	0.06	0.32	0.17	0.02	0.00	0.10	0.24	0.05	0.04
2006	0.05	0.35	0.16	0.02	0.00	0.08	0.23	0.06	0.04

Source: *China Customs Statistics* (1992-2006)

Table 12G. Processing Imports By Major Industries in billions of US\$

	Animals, Food	Minerals, Wood	Chemicals, Plastics	Textiles	Footwear, Headgear	Metals, Articles	Machinery, Electrical	Transport	Misc. Manufact.
1992	0.8	3.1	5.4	9.9	0.5	3.0	6.1	0.2	1.9
1993	0.9	3.5	6.3	10.7	0.5	4.2	7.5	0.3	2.1
1994	2.0	4.6	8.8	13.7	0.4	4.9	9.9	0.3	2.3
1995	2.8	5.3	10.6	16.1	0.4	6.0	13.4	0.3	2.8
1996	2.0	6.1	11.3	17.5	0.4	6.1	15.1	0.3	2.9
1997	2.2	7.3	12.4	18.0	0.4	6.9	18.9	0.3	3.0
1998	1.9	6.3	13.0	15.2	0.4	7.0	21.0	0.3	2.8
1999	1.4	6.3	12.8	15.0	0.4	7.5	26.1	0.3	2.9
2000	1.6	7.5	14.8	17.2	0.4	9.3	36.8	0.3	3.8
2001	1.7	6.8	14.6	17.0	0.4	8.8	39.5	0.3	4.0
2002	1.9	7.8	17.8	17.3	0.3	10.3	58.6	0.3	7.1
2003	2.2	9.3	21.2	18.9	0.4	13.2	82.0	0.3	14.5
2004	2.6	13.1	26.2	21.0	0.4	18.0	113.9	0.4	24.7
2005	3.2	16.5	31.5	20.9	0.4	20.8	145.1	0.6	33.6
2006	3.5	19.2	36.5	21.6	0.5	25.9	174.1	0.7	37.9

Source: *China Customs Statistics* (1992-2006)

Table 12H. Processing Imports By Major Industries (Share of Total Value)

	Animals, Food	Minerals, Wood	Chemicals, Plastics	Textiles	Footwear, Headgear	Metals, Articles	Machinery, Electrical	Transport	Misc. Manufact.
1992	0.03	0.10	0.17	0.32	0.02	0.10	0.19	0.01	0.06
1993	0.02	0.10	0.17	0.29	0.01	0.11	0.21	0.01	0.06
1994	0.04	0.10	0.19	0.29	0.01	0.10	0.21	0.01	0.05
1995	0.05	0.09	0.18	0.28	0.01	0.10	0.23	0.01	0.05
1996	0.03	0.10	0.18	0.28	0.01	0.10	0.24	0.00	0.05
1997	0.03	0.10	0.18	0.26	0.01	0.10	0.27	0.00	0.04
1998	0.03	0.09	0.19	0.22	0.01	0.10	0.31	0.00	0.04
1999	0.02	0.09	0.17	0.20	0.00	0.10	0.36	0.00	0.04
2000	0.02	0.08	0.16	0.19	0.00	0.10	0.40	0.00	0.04
2001	0.02	0.07	0.16	0.18	0.00	0.09	0.42	0.00	0.04
2002	0.02	0.06	0.15	0.14	0.00	0.08	0.48	0.00	0.06
2003	0.01	0.06	0.13	0.12	0.00	0.08	0.50	0.00	0.09
2004	0.01	0.06	0.12	0.09	0.00	0.08	0.51	0.00	0.11
2005	0.01	0.06	0.11	0.08	0.00	0.08	0.53	0.00	0.12
2006	0.01	0.06	0.11	0.07	0.00	0.08	0.54	0.00	0.12

Source: *China Customs Statistics* (1992-2006)

Partner	Export						Import						Trade Balance (X-M)					
	1992	1997	2002	2007	1992	1997	2002	2007	1992	1997	2002	2007	1992	1997	2002	2007		
Japan	11679	31682	48190	99463	13682	28306	52227	128546	-2004	3377	-4037	-29083	-2004	3377	-4037	-29083		
Hong Kong	37512	43665	58157	175638	20534	6981	10683	12457	16979	36685	47475	163181	16979	36685	47475	163181		
Korea	2405	8827	15158	53947	2623	14482	26979	97907	-218	-5654	-11821	-43960	-218	-5654	-11821	-43960		
Taiwan	695	3392	6558	22883	5866	16083	37188	98734	-5172	-12691	-30630	-75850	-5172	-12691	-30630	-75850		
Malaysia	645	1896	4958	17307	830	2492	9084	27447	-185	-597	-4126	-10140	-185	-597	-4126	-10140		
Singapore	2031	4307	6363	27287	1236	4464	6181	14057	795	-157	182	13230	795	-157	182	13230		
Thailand	895	1476	2935	11420	424	2009	5477	21958	470	-534	-2542	-10538	470	-534	-2542	-10538		
Philippines	210	1337	1941	7177	155	326	3120	22786	54	1011	-1179	-15609	54	1011	-1179	-15609		
Indonesia	471	1819	3322	11277	1554	2673	4401	11824	-1083	-854	-1079	-547	-1083	-854	-1079	-547		
Viet Nam	106	1076	1741	11069	73	355	1115	3183	34	721	626	7886	34	721	626	7886		
Myanmar	259	565	705	1808	131	73	137	378	128	492	568	1230	128	492	568	1230		
Cambodia	13	67	247	865	0	45	25	51	13	22	223	814	13	22	223	814		
Brunei	10	29	18	107	5	0	242	246	5	29	-224	-139	5	29	-224	-139		
Lao PDR	28	23	54	175	4	6	10	86	24	17	45	89	24	17	45	89		
East Asia	56959	100160	150348	440224	47118	78295	156867	439661	9841	21866	-6519	562	9841	21866	-6519	562		
NIEs	42643	60191	86237	279755	30258	42010	81031	223155	12384	18182	5206	56600	12384	18182	5206	56600		
ASEAN*	2221	6527	13156	47182	2964	7501	22082	84016	-743	-974	-8926	-36834	-743	-974	-8926	-36834		
World**	84940	181946	322614	1217776	80585	139809	272390	870183	4355	42137	50224	347593	4355	42137	50224	347593		

* Includes Indonesia, Malaysia, Philippines and Thailand. ** Excludes reimports.

Source: Data from UN COMTRADE

Partner	Total Trade (X+M) \$ M				Share %			
	1992	1997	2002	2007	1992	1997	2002	2007
Japan	25361	59988	100417	228009	15.3	18.6	16.9	10.9
Hong Kong	58046	50646	68840	188095	35.1	15.7	11.6	9.0
Korea	5028	23309	42137	151855	3.0	7.2	7.1	7.3
Taiwan	6561	19474	43747	121617	4.0	6.1	7.4	5.8
Malaysia	1476	4388	14042	44754	0.9	1.4	2.4	2.1
Singapore	3267	8771	12544	41343	2.0	2.7	2.1	2.0
Thailand	1319	3485	8411	33379	0.8	1.1	1.4	1.6
Philippines	365	1663	5061	29963	0.2	0.5	0.9	1.4
Indonesia	2026	4491	7723	23102	1.2	1.4	1.3	1.1
Viet Nam	179	1431	2855	14252	0.1	0.4	0.5	0.7
Myanmar	390	639	842	1986	0.2	0.2	0.1	0.1
Cambodia	13	112	272	916	0.0	0.0	0.0	0.0
Brunei	15	29	260	353	0.0	0.0	0.0	0.0
Lao PDR	32	29	64	260	0.0	0.0	0.0	0.0
East Asia	104076	178455	307215	879885	62.9	55.5	51.6	42.1
NIEs	72901	102201	167268	502910	44.0	31.8	28.1	24.1
ASEAN4*	5185	14027	35237	131197	3.1	4.4	5.9	6.3
World**	165525	321755	595004	2087959	100.0	100.0	100.0	100.0

* Includes Indonesia, Malaysia, Philippines and Thailand. ** Excludes re-imports.

Source: Data from UN COMTRADE

Category	Export				Import			
	1992	1997	2002	2007	1992	1997	2002	2007
Total	56959	100160	150348	440274	47118	78295	156867	439661
Annual change		11%	8%	21%		10%	14%	21%
As share of China's total	67%	55%	47%	36%	58%	56%	58%	51%
Raw materials	5893	9793	9435	21896	4856	9998	11846	37169
Fuels and mining	4624	8095	8031	19808	3346	7114	7696	28297
Raw materials	1270	1699	1404	2088	1509	2883	4150	8871
Intermediate goods	12512	23469	28316	88819	19490	31266	48299	103188

Category	Export				Import			
	1992	1997	2002	2007	1992	1997	2002	2007
Iron and steel	1055	2835	1623	20259	2937	2998	6756	13527
Chemicals	2333	4997	6411	23879	5411	11671	23850	65188
Semi-manufactures	3304	6494	9600	24382	4211	6561	7916	13962
Textiles	5819	9143	10682	20299	6931	10037	9777	10511
Capital goods	9506	22351	61734	222894	17068	29599	82200	236913
Office & telecomms	4572	10812	38939	139890	4818	11931	47546	153190
Transport equipment	933	2537	4360	17135	2002	1428	4443	14043
Other machinery	4001	9001	18436	65869	10249	16241	30211	69681
Finished goods	29048	44547	50862	106615	5703	7432	14522	62391
Arms and ammunition	6	2	5	1	0	0	0	0
Commodities n.e.c.	56	103	90	1151	475	147	130	896
Clothing	11161	20734	21765	34600	417	1014	1086	1045
Other manufactures	11750	14086	17847	52844	3954	4768	11209	52822
Food	6076	9622	11157	18018	858	1502	2098	7628
Source: Data from UN COMTRADE								

Category	Export				Import			
	1992	1997	2002	2007	1992	1997	2002	2007
Total	9841	21866	-6519	562	104076	178455	307215	879885
Annual change						11%	11%	21%
As share of China's total					63%	55%	52%	42%
Raw materials	1038	-204	-2411	-15273	10749	19791	21281	59065
Fuels and mining	1278	980	335	-8489	7970	15209	15727	48106
Raw materials	-240	-1184	-2746	-6783	2779	4582	5555	10960
Intermediate goods	-6979	-7797	-19982	-14369	32002	54736	76615	192007
Iron and steel	-1882	-163	-5134	6732	3992	5832	8379	33786
Chemicals	-3078	-6674	-17439	-41309	7743	16668	30261	89068
Semi-manufactures	-907	-66	1685	10420	7516	13035	17516	38344
Textiles	-1112	-893	905	9788	12751	19180	20459	30810
Capital goods	-7562	-7248	-20466	-14019	26574	51950	143934	459807
Office & telecomms	-246	-1118	-8608	-13300	9389	22743	86485	293080
Transport equipment	-1069	1109	-83	3092	2934	3965	8803	31178
Other machinery	-6248	-7239	-11775	-3812	14250	25242	48646	135550
Finished goods	23345	37115	36340	44223	34752	51978	65384	169006
Arms and ammunition	5	2	5	1	6	2	5	1
Commodities n.e.c.	-420	-44	-41	255	531	250	220	2047
Clothing	10745	19720	20679	33555	11578	21749	22850	35645
Other manufactures	7797	9317	6638	22	15704	18854	29055	105667
Food	5218	8120	9069	10391	6934	11124	13255	25646

Source: Data from UN COMTRADE

2007	Intermediate Goods (\$B)	of which %				Total
Partner		Chemicals	Iron and steel	Semi-manufactures	Textiles	
Japan	51.7	47	17	23	12	100
Korea	43.4	50	24	15	10	100
Taiwan	31.5	60	16	13	11	100
Hong Kong	25.4	26	6	28	39	100
Thailand	8.8	54	14	21	11	100
Singapore	8.3	56	17	19	7	100
Malaysia	6.3	49	13	27	11	100
Indonesia	6.0	38	15	24	23	100
Philippines	2.7	30	27	22	21	100
East Asia	184.1	47	17	20	15	100
World*	433.5	39	16	28	17	100

* Includes \$8 billion in reimports

2007	Intermediate Goods (\$B)	%				Total
Partner		Chemicals	Iron and steel	Semi-manufactures	Textiles	
Japan	51.7	15	13	10	9	12
Korea	43.4	13	15	5	6	10
Taiwan	31.5	11	7	3	5	7
Hong Kong	25.4	4	2	6	14	6
Thailand	8.8	3	2	2	1	2
Singapore	8.3	3	2	1	1	2
Malaysia	6.3	2	1	1	1	1
Indonesia	6.0	1	1	1	2	1
Philippines	2.7	0	1	0	1	1
East Asia	184.1	52	44	30	39	42
World*	433.5	100	100	100	100	100

* Includes \$8 billion in reimports

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2007	Trade Balance \$B (Intermediate Goods)				
Partner	Chemicals	Iron and steel	Semi-manufactures	Textiles	Total
Japan	(12.3)	(4.8)	1.5	(0.0)	(15.5)
Korea	(13.9)	3.9	1.3	(0.2)	(8.9)
Taiwan	(13.7)	(1.1)	(1.4)	(2.9)	(19.0)
Hong Kong	1.9	1.5	6.5	7.8	17.7
Thailand	(1.8)	1.0	(0.2)	0.4	(0.6)
Singapore	(2.9)	1.3	0.8	0.5	(0.3)
Malaysia	(1.0)	0.8	0.2	0.5	0.4
Indonesia	0.4	0.9	0.4	1.0	2.6
Philippines	0.5	0.7	0.5	0.5	2.2
East Asia	(42.8)	4.2	9.6	7.6	(21.4)
World*	(47.1)	26.2	63.8	39.3	82.2

* Includes \$8 billion in reimports
 Source: Data from UN COMTRADE

Table 14D. China's 2007 Trade with East Asia in Capital Goods (in billion US\$)

2007	Capital Goods (\$B)	of which %			Total
		Office & telecomms	Other mach.	Transport equip.	
Hong Kong	114.5	73	24	3	100
Japan	111.3	40	47	13	100
Korea	68.9	66	27	7	100
Taiwan	59.6	71	27	2	100
Malaysia	27.4	84	14	2	100
Singapore	26.1	66	22	12	100
Philippines	23.2	90	9	1	100
Thailand	17.7	74	24	2	100
Indonesia	6.3	41	45	14	100
East Asia	454.9	64	29	7	100
World*	960.9	57	33	10	100

* Includes \$60 billion in reimports

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2007	Capital Goods (\$B)	of which %			
Partner		Office & telecomms	Other mach.	Transport equipt.	Total
Hong Kong	114.5	15	9	4	12
Japan	111.3	8	17	15	12
Korea	68.9	8	6	5	7
Taiwan	59.6	8	5	1	6
Malaysia	27.4	4	1	1	3
Singapore	26.1	3	2	3	3
Philippines	23.2	4	1	0	2
Thailand	17.7	2	1	0	2
Indonesia	6.3	0	1	1	1
East Asia	454.9	54	42	30	47
World*	960.9	100	100	100	100

* Includes \$60 billion in reimports

2007	Trade Balance \$B (Capital Goods)			
Partner	Office & telecomms	Other mach.	Transport equipt.	Total
Hong Kong	76.2	24.5	3.9	104.7
Japan	(7.4)	(21.2)	(6.1)	(34.7)
Korea	(22.0)	(5.2)	(1.2)	(28.3)
Taiwan	(29.3)	(8.6)	0.5	(37.4)
Malaysia	(10.7)	1.0	0.4	(9.2)
Singapore	5.0	1.0	2.9	9.0
Philippines	(17.6)	0.3	0.3	(17.1)
Thailand	(8.0)	0.3	0.3	(7.4)
Indonesia	(0.2)	1.8	0.7	2.4
East Asia	(14.0)	(5.9)	1.8	(18.1)
World*	107.9	26.2	17.4	151.5

* Includes \$60 billion in reimports

Source: Data from UN COMTRADE

Table 14E. China's 2007 Trade with East Asia in Office and Telecommunications Equipment, in million US\$

Partner	Trade Balance				Total Trade			
	EDP and office equip.	IC and elec. comp.	Telecom equipm't	Grand Total	EDP and office equip.	IC and elec. comp.	Telecom equipm't	Grand Total
Hong Kong	32.8	10.1	33.3	76.2	33.2	14.9	34.9	83.0
Indonesia	(0.4)	(0.3)	0.5	(0.2)	0.9	0.5	1.1	2.6
Japan	7.9	(16.3)	1.0	(7.4)	11.6	20.9	11.8	44.4
Malaysia	1.6	(12.4)	0.2	(10.7)	4.6	16.2	2.2	23.0
Taiwan	0.5	(29.6)	(0.3)	(29.3)	4.6	34.5	3.3	42.4
Philippines	(2.2)	(15.2)	(0.2)	(17.6)	2.8	16.9	1.1	20.8
Korea	(2.1)	(20.2)	0.2	(22.0)	8.0	26.9	10.4	45.4
Singapore	1.9	(0.7)	3.8	5.0	5.2	7.6	4.6	17.3
Thailand	(5.2)	(3.0)	0.2	(8.0)	7.9	3.4	1.8	13.0
East Asia	34.8	(87.5)	38.8	(14.0)	78.9	141.9	71.2	292.0
World	119.4	(109.6)	98.0	107.9	200.5	180.9	163.6	545.0

Partner	As % of trade with partner				As % of trade in item			
	EDP and office equip.	IC and elec. comp.	Telecom equipm't	Grand Total	EDP and office equip.	IC and elec. comp.	Telecom equipm't	Grand Total
Hong Kong	40	18	42	100	17	8	21	15
Indonesia	36	21	43	100	0	0	1	0
Japan	26	47	27	100	6	12	7	8
Malaysia	20	71	9	100	2	9	1	4
Taiwan	11	81	8	100	2	19	2	8
Philippines	14	81	5	100	1	9	1	4
Korea	18	59	23	100	4	15	6	8
Singapore	30	44	26	100	3	4	3	3
Thailand	60	26	14	100	4	2	1	2
East Asia	27	49	24	100	39	78	44	54
World	37	33	30	100	100	100	100	100

Source: Data from UN COMTRADE

Product	Export				Import			
	1992	1997	2002	2007	1992	1997	2002	2007
Total	11679	31682	48190	99463	13682	28306	52227	128546
Annual change		20%	8%	14%		15%	12%	18%
As share of China's total	14%	17%	15%	8%	17%	20%	19%	15%
Raw materials	3038	3733	3096	4981	643	1749	2320	8176
Fuels and mining	2457	2986	2402	4138	411	1219	1572	6687
Raw materials	581	746	694	843	232	530	748	1489
Intermediate goods	2027	5300	6797	18077	4764	9049	13860	33593
Iron and steel	253	551	382	2087	1822	1871	2913	6845
Chemicals	554	1332	1609	6100	1288	3465	6280	18379
Semi-manufactures	448	1813	2858	6739	582	1244	2106	5216
Textiles	772	1605	1948	3150	1072	2469	2560	3153
Capital goods	567	6123	15505	38300	7319	14773	31229	72976
Office & telecomms	251	3090	9255	18492	1663	5293	12950	25936
Transport equipment	49	400	1289	4289	1746	966	3700	10351
Other machinery	266	2632	4962	15519	3910	8515	14579	36690
Finished goods	6047	16526	22792	38106	957	2734	4818	13801
Arms and ammunition	0	0	0	0	0	0	0	0
Commodities n.e.c.	1	0	34	685	1	5	14	175
Clothing	2837	7757	11197	16498	77	398	246	128
Other manufactures	788	4448	6208	13120	804	2154	4363	13156
Food	2421	4321	5353	7804	75	177	195	342

Source: Data from UN COMTRADE

Product	Trade Balance (X-M)				Total Trade (X+M)			
	1992	1997	2002	2007	1992	1997	2002	2007
Total	-2004	3377	-4037	-29083	25361	59988	100417	228009
Annual change						17%	10%	16%
As share of China's total					15%	19%	17%	11%
Raw materials	2396	1984	776	-3196	3681	5482	5416	13157
Fuels and mining	2046	1767	830	-2550	2868	4206	3974	10825

Product	Trade Balance (X-M)				Total Trade (X+M)			
	1992	1997	2002	2007	1992	1997	2002	2007
Raw materials	350	216	-54	-646	813	1276	1442	2332
Intermediate goods	-2737	-3749	-7063	-15516	6791	14350	20657	51669
Iron and steel	-1569	-1320	-2532	-4758	2074	2423	3295	8933
Chemicals	-734	-2133	-4671	-12278	1841	4798	7889	24479
Semi-manufactures	-134	569	752	1523	1030	3056	4965	11955
Textiles	-300	-864	-612	-3	1845	4073	4509	6303
Capital goods	-6752	-8650	-15724	-34677	7886	20896	46734	111276
Office & telecomms	-1412	-2203	-3695	-7443	1914	8383	22205	44428
Transport equipment	-1697	-566	-2411	-6062	1795	1366	4989	14639
Other machinery	-3644	-5882	-9617	-21171	4176	11147	19541	52209
Finished goods	5090	13792	17973	24305	7004	19260	27610	51906
Arms and ammunition	0	0	0	0	0	0	0	0
Commodities n.e.c.	0	-4	20	510	2	5	48	860
Clothing	2760	7359	10951	16370	2914	8155	11442	16625
Other manufactures	-17	2294	1844	-36	1592	6602	10571	26275
Food	2346	4143	5158	7461	2496	4498	5548	8146

Source: Data from UN COMTRADE

Product	Export				Import			
	1992	1997	2002	2007	1992	1997	2002	2007
Total	37512	43665	58157	175638	20534	6981	10683	12457
Annual change		3%	6%	22%		-22%	9%	3%
As share of China's total	44%	24%	18%	14%	25%	5%	4%	1%
Raw materials	1027	2310	2333	5400	1163	335	596	1544
Fuels and mining	620	1933	2183	5139	944	245	512	1355
Raw materials	408	377	150	261	220	90	84	188
Intermediate goods	7787	10061	11327	21558	9283	2634	2941	3886

Product	Export				Import			
	1992	1997	2002	2007	1992	1997	2002	2007
Iron and steel	200	274	229	1577	379	34	20	50
Chemicals	1133	1676	1526	4301	2592	540	1046	2364
Semi-manufactures	2218	2729	3764	6803	1760	533	538	350
Textiles	4237	5382	5809	8877	4551	1528	1338	1122
Capital goods	7978	9508	26926	109569	6640	2642	5347	4917
Office & telecomms	4138	4830	18274	79591	2568	1208	3406	3417
Transport equipment	655	1078	1229	3967	126	21	19	18
Other machinery	3184	3601	7423	26012	3946	1413	1921	1482
Finished goods	20720	21787	17571	39110	3447	1370	1799	2110
Arms and ammunition	0	0	0	0	0	0	0	
Commodities n.e.c.	18	6	16	244	433	60	55	392
Clothing	8118	11601	7084	9336	312	423	676	641
Other manufactures	10595	7574	8513	26671	2485	836	1039	1004
Food	1989	2606	1959	2859	217	51	29	74
Source: Data from UN COMTRADE								

Product	Trade Balance (X-M)				Total Trade (X+M)			
	1992	1997	2002	2007	1992	1997	2002	2007
Total	16979	36685	47475	163181	58046	50646	68840	188095
Annual change						-3%	6%	20%
As share of China's total					35%	16%	11%	9%
Raw materials	(136)	1975	1737	3857	2191	2645	2929	6944
Fuels and mining	(324)	1688	1671	3784	1563	2178	2695	6495
Raw materials	188	287	66	73	627	466	234	449
Intermediate goods	(1496)	7427	8386	17672	17071	12695	14269	25444
Iron and steel	(179)	240	209	1527	579	308	249	1627
Chemicals	(1460)	1137	480	1938	3725	2216	2572	6665

Product	Trade Balance (X-M)				Total Trade (X+M)			
	1992	1997	2002	2007	1992	1997	2002	2007
Semi-manufactures	457	2196	3227	6454	3978	3261	4302	7153
Textiles	(314)	3854	4471	7755	8789	6910	7146	9999
Capital goods	1338	6866	21579	104652	14618	12150	32272	114487
Office & telecomms	1570	3622	14867	76174	6706	6037	21680	83007
Transport equipment	530	1056	1210	3949	781	1099	1248	3985
Other machinery	(762)	2188	5502	24529	7130	5014	9344	27494
Finished goods	17272	20417	15772	37000	24167	23157	19370	41220
Arms and ammunition	(0)	0	0	0	0	0	0	0
Commodities n.e.c.	(415)	(54)	(39)	(148)	451	65	71	636
Clothing	7806	11178	6408	8695	8430	12024	7760	9977
Other manufactures	8110	6738	7474	25667	13080	8410	9552	27675
Food	1772	2555	1930	2785	2206	2658	1988	2933

Source: Data from UN COMTRADE

Product	Export				Import			
	1992	1997	2002	2007	1992	1997	2002	2007
Total	2031	4307	6363	27287	1236	4464	6181	14057
Annual change		15%	8%	29%		26%	7%	16%
As share of China's total	2%	2%	2%	2%	2%	3%	2%	1%
Raw materials	759	639	397	934	762	1821	230	373
Fuels and mining	717	597	381	893	747	1808	219	363
Raw materials	42	42	16	41	15	13	10	10
Intermediate goods	556	938	758	4013	192	633	1856	4282
Iron and steel	52	84	60	1390	7	14	13	47
Chemicals	111	155	212	889	158	496	1619	3794
Semi-manufactures	153	377	265	1192	23	98	174	400

Product	Export				Import			
	1992	1997	2002	2007	1992	1997	2002	2007
Textiles	240	322	222	541	4	25	50	41
Capital goods	209	1647	3894	17523	148	1795	3632	8552
Office & telecomms	34	974	2783	11168	46	1248	2596	6172
Transport equipment	67	223	181	3006	13	61	51	63
Other machinery	108	451	930	3349	90	486	985	2317
Finished goods	507	1083	1313	4816	134	215	463	850
Arms and ammunition	0	0	0	0	0			
Commodities n.e.c.	1	2	0	85	39	78	31	118
Clothing	58	226	617	3111	0	1	1	2
Other manufactures	119	486	466	1313	19	102	356	531
Food	329	369	230	307	75	34	76	199

Source: Data from UN COMTRADE

Product	Trade Balance (X-M)				Total Trade (X+M)			
	1992	1997	2002	2007	1992	1997	2002	2007
Total	795	(157)	182	13230	3267	8771	12544	41343
Annual change						20%	7%	24%
As share of China's total					2%	3%	2%	2%
Raw materials	(2)	(1182)	168	561	1521	2460	627	1307
Fuels and mining	(30)	(1211)	162	530	1463	2405	600	1256
Raw materials	27	28	6	31	57	55	26	51
Intermediate goods	364	305	(1098)	(269)	748	1571	2614	8295
Iron and steel	45	71	47	1344	59	98	73	1437
Chemicals	(48)	(341)	(1407)	(2905)	269	651	1831	4684
Semi-manufactures	131	279	91	793	176	475	439	1592
Textiles	235	297	171	500	244	347	272	582
Capital goods	61	(148)	262	8971	357	3442	7526	26076
Office & telecomms	(12)	(275)	187	4996	79	2222	5378	17340
Transport equipment	54	162	131	2944	79	283	232	3069
Other machinery	19	(35)	(55)	1031	198	937	1916	5666

Table 17B. China's Trade with Singapore by Product (in million US\$)

Product	Trade Balance (X-M)				Total Trade (X+M)			
	1992	1997	2002	2007	1992	1997	2002	2007
Finished goods	373	868	850	3967	641	1298	1777	5666
Arms and ammunition	0	0	0	0	0	0	0	0
Commodities n.e.c.	(39)	(76)	(31)	(33)	40	80	31	203
Clothing	58	225	616	3109	59	228	618	3112
Other manufactures	99	384	110	782	138	588	821	1844
Food	254	335	154	108	404	403	306	507

Source: Data from UN COMTRADE

Table 18A. China's Trade with Korea by Product (in million US\$)

Product	Export				Import			
	1992	1997	2002	2007	1992	1997	2002	2007
Total	2405	8827	15158	53947	2623	14482	26979	97907
Annual change		26%	11%	25%		34%	12%	26%
As share of China's total	3%	5%	5%	4%	3%	10%	9%	10%
Raw materials	583	1763	1925	5719	286	2047	1394	5996
Fuels and mining	500	1522	1682	5307	129	1338	973	5162
Raw materials	83	242	243	411	157	710	421	834
Intermediate goods	836	3131	3681	17222	1800	8055	11257	26167
Iron and steel	167	976	362	7141	629	524	1356	3260
Chemicals	163	603	1020	3964	539	3173	5762	17823
Semi-manufactures	217	464	1131	3977	288	1830	1813	2698
Textiles	289	1089	1168	2140	344	2528	2327	2386
Capital goods	100	1492	4456	20278	454	3518	12235	48603
Office & telecomms	35	688	2519	11691	170	1562	8054	33663
Transport equipment	9	249	426	1908	14	206	399	3078
Other machinery	57	555	1511	6679	270	1750	3781	11862
Finished goods	886	2441	5097	10728	83	862	2093	17141
Arms and ammunition	0	0	0	0		0	0	0
Commodities n.e.c.	2	2	0	10	0	4	23	166
Clothing	92	737	2250	3379	10	122	96	136
Other manufactures	72	576	979	4005	64	669	1872	16555

Product	Export				Import			
	1992	1997	2002	2007	1992	1997	2002	2007
Food	720	1126	1868	3334	9	68	102	283

Source: Data from UN COMTRADE

Product	Trade Balance (X-M)				Total Trade (X+M)			
	1992	1997	2002	2007	1992	1997	2002	2007
Total	(218)	(5654)	(11821)	(43960)	5028	23309	42137	151855
Annual change						31%	12%	26%
As share of China's total					3%	7%	7%	7%
Raw materials	297	(284)	530	(278)	869	3811	3319	11715
Fuels and mining	371	184	709	145	629	2859	2655	10469
Raw materials	(74)	(468)	(178)	(423)	240	952	664	1246
Intermediate goods	(964)	(4923)	(7577)	(8945)	2635	11186	14938	43389
Iron and steel	(462)	452	(993)	3881	796	1499	1718	10401
Chemicals	(376)	(2570)	(4742)	(13859)	702	3776	6781	21787
Semi-manufactures	(71)	(1366)	(682)	1279	505	2294	2944	6676
Textiles	(55)	(1439)	(1159)	(245)	632	3617	3495	4526
Capital goods	(354)	(2026)	(7779)	(28325)	554	5010	16691	68881
Office & telecomms	(135)	(874)	(5535)	(21972)	205	2249	10573	45353
Transport equipment	(5)	43	27	(1170)	23	455	825	4987
Other machinery	(214)	(1195)	(2270)	(5183)	327	2305	5292	18541
Finished goods	803	1578	3004	(6413)	969	3303	7189	27869
Arms and ammunition	0	0	0	0	0	0	0	0
Commodities n.e.c.	2	(2)	(23)	(157)	2	5	23	176
Clothing	82	615	2154	3242	102	859	2346	3515
Other manufactures	8	(93)	(893)	(12549)	136	1245	2851	20560
Food	710	1058	1766	3050	729	1193	1969	3617

Source: Data from UN COMTRADE

Table 19A. China's Trade with Taiwan by Product (in million US\$)

Product	Trade Balance (X-M)				Total Trade (X+M)			
	1992	1997	2002	2007	1992	1997	2002	2007
Total	695	3392	6558	22883	5866	16083	37188	98734
Annual change		32%	13%	25%		20%	17%	20%
As share of China's total	1%	2%	2%	2%	7%	12%	13%	10%
Raw materials	171	530	852	2144	370	1221	2039	4752
Fuels and mining	134	364	695	1952	119	701	1436	4042
Raw materials	37	167	156	192	250	520	604	710
Intermediate goods	217	964	1368	6233	2438	8412	13760	25282
Iron and steel	75	291	222	2020	87	515	2293	3149
Chemicals	46	311	510	2553	688	3222	6441	16220
Semi-manufactures	63	284	480	1367	739	1568	1933	2766
Textiles	34	77	155	293	924	3107	3093	3148
Capital goods	116	1124	3334	11107	2445	5448	18087	48504
Office & telecomms	43	438	1877	6542	351	1644	10334	35843
Transport equipment	6	101	256	785	100	164	222	311
Other machinery	67	585	1201	3780	1993	3641	7531	12349
Finished goods	190	774	1004	3400	614	1001	3303	20196
Arms and ammunition		0	0	0	0		0	0
Commodities n.e.c.	0	1	1	87	1	1	1	3
Clothing	43	172	242	350	17	62	44	35
Other manufactures	96	462	600	2526	564	907	3210	20035
Food	51	139	161	438	30	31	47	122

Source: Data from UN COMTRADE

Table 19B. China's Trade with Taiwan by Product (in million US\$)

Product	Trade Balance (X-M)				Total Trade (X+M)			
	1992	1997	2002	2007	1992	1997	2002	2007
Total	(5172)	(12691)	(30630)	(75850)	6561	19474	43747	121617
Annual change						22%	16%	20%
As share of China's total					4%	6%	7%	6%
Raw materials	(199)	(691)	(1188)	(2608)	540	1752	2891	6896
Fuels and mining	14	(338)	(741)	(2090)	253	1065	2131	5993

Product	Trade Balance (X-M)				Total Trade (X+M)			
	1992	1997	2002	2007	1992	1997	2002	2007
Raw materials	(213)	(353)	(447)	(518)	287	687	760	903
Intermediate goods	(2221)	(7449)	(12392)	(19049)	2655	9376	15128	31515
Iron and steel	(13)	(224)	(2071)	(1130)	162	807	2515	5169
Chemicals	(643)	(2912)	(5931)	(13666)	734	3533	6951	18773
Semi-manufactures	(676)	(1283)	(1452)	(1399)	802	1852	2413	4133
Textiles	(890)	(3030)	(2938)	(2855)	957	3184	3248	3441
Capital goods	(2329)	(4324)	(14752)	(37397)	2561	6571	21421	59611
Office & telecomms	(308)	(1206)	(8457)	(29301)	394	2081	12211	42385
Transport equipment	(94)	(63)	34	474	107	264	479	1096
Other machinery	(1927)	(3056)	(6330)	(8570)	2060	4226	8732	16129
Finished goods	(423)	(227)	(2298)	(16796)	804	1775	4307	23595
Arms and ammunition	(0)	0	0	0	0	0	0	0
Commodities n.e.c.	(1)	(1)	0	83	2	2	2	90
Clothing	25	111	197	314	60	234	286	385
Other manufactures	(468)	(445)	(2610)	(17510)	660	1370	3811	22561
Food	21	108	115	316	82	170	208	559

Source: Data from UN COMTRADE

Product	Export				Import			
	1992	1997	2002	2007	1992	1997	2002	2007
Total	2221	6527	13156	47182	2964	7501	22082	84016
Annual change		22%	14%	26%		19%	22%	27%
As share of China's total	3%	4%	4%	4%	4%	5%	8%	10%
Raw materials	282	641	733	2040	1518	2489	4019	13854
Fuels and mining	166	521	623	1822	937	1530	1960	8929
Raw materials	116	120	110	219	581	959	2059	4925
Intermediate goods	842	2347	3176	14270	971	2403	4542	9563
Iron and steel	261	547	265	3524	14	39	159	152

Table 20A. China's Trade with ASEAN 4 by Product (in million US\$)

Product	Export				Import			
	1992	1997	2002	2007	1992	1997	2002	2007
Chemicals	270	732	1180	4502	145	773	2670	6489
Semi-manufactures	157	634	855	3244	777	1219	1321	2334
Textiles	154	434	876	3001	35	372	392	589
Capital goods	454	2037	6622	21647	60	1416	11631	52968
Office & telecomms	64	779	4141	11504	19	971	10196	47958
Transport equipment	101	310	570	1919	2	10	52	217
Other machinery	289	948	1911	8224	39	435	1384	4793
Finished goods	644	1501	2625	9225	414	1192	1890	7630
Arms and ammunition	5	1	0	0				
Commodities n.e.c.	33	16	10	19	0	0	6	41
Clothing	12	88	296	1681	1	7	21	73
Other manufactures	72	475	962	4731	16	97	349	1374
Food	521	921	1356	2793	398	1089	1514	6142

Source: Data from UN COMTRADE

Table 20B. China's Trade with ASEAN 4 by Product

Product	Trade Balance (X-M)				Total Trade (X+M)			
	1992	1997	2002	2007	1992	1997	2002	2007
Total	-743	-974	-8926	-36834	5185	14027	35237	131197
Annual change						20%	18%	26%
As share of China's total					3%	4%	6%	6%
Raw materials	-1237	-1848	-3286	-11814	1800	3129	4752	15894
Fuels and mining	-771	-1009	-1337	-7107	1104	2050	2584	10750
Raw materials	-465	-839	-1949	-4707	697	1079	2168	5144
Intermediate goods	-129	-56	-1366	4707	1813	4751	7718	23833
Iron and steel	247	508	105	3372	275	586	424	3676
Chemicals	126	-41	-1490	-1987	415	1504	3850	10990
Semi-manufactures	-620	-585	-466	910	934	1853	2177	5577
Textiles	119	62	484	2412	189	807	1267	3589
Capital goods	394	621	-5009	-31321	514	3454	18253	74615
Office & telecomms	45	-192	-6054	-36454	83	1751	14337	59462

Product	Trade Balance (X-M)				Total Trade (X+M)			
	1992	1997	2002	2007	1992	1997	2002	2007
Transport equipment	99	300	518	1702	103	320	622	2136
Other machinery	250	513	527	3431	326	1383	3295	13017
Finished goods	229	309	735	1595	1058	2694	4514	16855
Arms and ammunition	5	1	0	0	5	1	0	0
Commodities n.e.c.	33	16	4	-22	33	16	15	60
Clothing	12	81	275	1608	13	95	317	1754
Other manufactures	56	378	614	3357	88	572	1311	6106
Food	124	-167	-158	-3349	919	2010	2871	8935

Source: Data from UN COMTRADE

Product	Export				Import			
	1992	1997	2002	2007	1992	1997	2002	2007
Total	210	1337	1941	7177	155	326	3120	22786
Annual change		37%	7%	26%		15%	45%	40%
As share of China's total	0%	1%	1%	1%	0%	0%	1%	2%
Raw materials	43	154	127	212	76	160	137	1999
Fuels and mining	41	122	123	185	72	149	125	1962
Raw materials	1	32	3	27	4	10	12	37
Intermediate goods	86	437	541	2463	58	32	59	260
Iron and steel	5	71	24	732	7	1	0	3
Chemicals	23	92	152	634	46	13	37	173
Semi-manufactures	31	162	172	561	4	15	15	46
Textiles	27	111	192	536	1	4	7	38
Capital goods	38	365	739	3086	4	78	2764	20141
Office & telecomms	1	153	324	1625	0	65	2576	19224
Transport equipment	5	65	140	285		1	5	14
Other machinery	31	147	275	1176	3	13	182	902
Finished goods	43	380	534	1416	17	56	161	386
Arms and ammunition		0	0	0				
Commodities n.e.c.	0	1	0	2			1	0

Table 21A. China's Trade with the Philippines by Product (in million US\$)

Product	Export				Import			
	1992	1997	2002	2007	1992	1997	2002	2007
Clothing	3	17	93	224	0	2	6	8
Other manufactures	11	99	244	679	1	5	67	242
Food	29	264	197	511	17	48	87	137

Source: Data from UN COMTRADE

Table 21B. China's Trade with the Philippines by Product (in million US\$)

Product	Trade Balance (X-M)				Total Trade (X+M)			
	1992	1997	2002	2007	1992	1997	2002	2007
Total	54	1011	(1179)	(15609)	365	1663	5061	29963
Annual change						30%	22%	36%
As share of China's total	1%	2%	-3%	-6%	0%	1%	1%	1%
Raw materials	(34)	(6)	(10)	(1787)	119	314	263	2211
Fuels and mining	(31)	(27)	(1)	(1777)	114	271	248	2148
Raw materials	(2)	22	(9)	(10)	5	42	15	64
Intermediate goods	28	405	482	2203	144	470	600	2724
Iron and steel	(2)	70	24	729	12	73	25	735
Chemicals	(23)	80	115	461	68	105	189	808
Semi-manufactures	27	147	157	515	35	177	187	607
Textiles	26	108	185	497	29	115	199	574
Capital goods	34	287	(2024)	(17055)	42	444	3503	23227
Office & telecomms	1	88	(2252)	(17600)	2	218	2901	20849
Transport equipment	5	64	135	271	5	65	145	300
Other machinery	28	134	93	274	35	160	458	2078
Finished goods	26	324	373	1030	60	436	696	1802
Arms and ammunition	0	0	0	0	0	0	0	0
Commodities n.e.c.	0	1	(0)	2	0	1	1	2
Clothing	3	15	87	216	3	19	99	232
Other manufactures	10	94	177	437	12	103	311	921
Food	12	215	109	374	45	312	284	647

Source: Data from UN COMTRADE

Product	Trade Balance (X-M)				Total Trade (X+M)			
	1992	1997	2002	2007	1992	1997	2002	2007
Raw materials	(359)	(363)	(957)	(2141)	437	499	1270	3044
Fuels and mining	(66)	(100)	(471)	(860)	125	190	753	1637
Raw materials	(293)	(263)	(486)	(1281)	312	309	516	1407
Intermediate goods	11	(203)	(628)	434	386	1371	2123	6267
Iron and steel	30	125	18	756	34	138	145	840
Chemicals	30	(72)	(692)	(1024)	98	385	1158	3075
Semi-manufactures	(94)	(219)	(61)	224	197	598	584	1665
Textiles	45	(37)	107	478	56	250	236	686
Capital goods	92	(25)	(2681)	(9240)	147	1448	8722	27394
Office & telecomms	23	(215)	(2673)	(10650)	50	854	7460	22957
Transport equipment	20	121	61	411	21	129	101	541
Other machinery	49	69	(68)	999	76	465	1161	3895
Finished goods	72	(5)	140	807	506	1069	1927	8049
Arms and ammunition	0	0	0	0	0	0	0	0
Commodities n.e.c.	0	(0)	(5)	(39)	0	0	5	42
Clothing	3	28	140	1063	4	31	155	1124
Other manufactures	26	107	201	1848	35	158	461	2822
Food	42	(141)	(196)	(2065)	467	879	1305	4061

Source: Data from UN COMTRADE

Product	Export				Import			
	1992	1997	2002	2007	1992	1997	2002	2007
Total	895	1476	2935	11420	424	2009	5477	21958
Annual change		10%	14%	27%		31%	20%	28%
As share of China's total	1%	1%	1%	1%	1%	1%	2%	2%
Raw materials	123	128	140	781	205	473	1009	3080
Fuels and mining	73	80	94	708	8	96	335	1166
Raw materials	50	48	46	74	197	377	674	1914
Intermediate goods	411	688	816	4120	72	655	1582	4677
Iron and steel	191	206	84	1115	3	30	87	81

Product	Export				Import			
	1992	1997	2002	2007	1992	1997	2002	2007
Chemicals	109	229	371	1493	30	375	1039	3301
Semi-manufactures	52	128	140	808	20	150	359	1041
Textiles	58	125	221	705	19	101	97	255
Capital goods	167	413	1644	5147	26	533	2399	12537
Office & telecomms	20	167	1076	2517	5	352	1919	10526
Transport equipment	59	40	95	353	1	5	22	65
Other machinery	87	206	473	2276	19	176	458	1946
Finished goods	195	247	334	1373	121	348	486	1665
Arms and ammunition	5	0	0	0				
Commodities n.e.c.	33	15	6	2	0	0		0
Clothing	4	33	26	111	0	2	3	20
Other manufactures	22	132	173	803	5	46	125	475
Food	131	67	128	457	116	301	359	1169

Source: Data from UN COMTRADE

Product	Trade Balance (X-M)				Total Trade (X+M)			
	1992	1997	2002	2007	1992	1997	2002	2007
Total	470	(534)	(2542)	(10538)	1319	3485	8411	33379
Annual change						19%	18%	28%
As share of China's total	11%	-1%	-7%	-4%	1%	1%	1%	2%
Raw materials	(82)	(345)	(868)	(2298)	328	601	1149	3861
Fuels and mining	65	(16)	(241)	(458)	81	176	429	1874
Raw materials	(148)	(329)	(628)	(1840)	247	425	720	1987
Intermediate goods	338	33	(766)	(558)	483	1343	2398	8797
Iron and steel	189	176	(3)	1034	194	235	172	1196
Chemicals	79	(146)	(669)	(1809)	140	604	1410	4794
Semi-manufactures	32	(22)	(219)	(233)	72	278	499	1848
Textiles	38	24	124	450	77	226	317	960
Capital goods	141	(120)	(755)	(7390)	193	946	4044	17683
Office & telecomms	15	(185)	(843)	(8008)	25	518	2995	13043

Product	Trade Balance (X-M)				Total Trade (X+M)			
	1992	1997	2002	2007	1992	1997	2002	2007
Transport equipment	58	35	73	288	61	45	117	419
Other machinery	68	30	15	330	106	382	931	4222
Finished goods	73	(101)	(153)	(292)	316	595	820	3037
Arms and ammunition	5	0	0	0	5	0	0	0
Commodities n.e.c.	33	15	6	2	33	15	6	2
Clothing	4	31	24	90	4	35	29	131
Other manufactures	17	86	48	328	28	177	298	1278
Food	15	(234)	(230)	(713)	247	367	487	1626

Source: Data from UN COMTRADE

Product	Export				Import			
	1992	1997	2002	2007	1992	1997	2002	2007
Total	471	1819	3322	11277	1554	2673	4401	11824
Annual change		27%	12%	24%		11%	10%	20%
As share of China's total	1%	1%	1%	1%	2%	2%	2%	1%
Raw materials	77	291	310	595	839	1425	1760	6183
Fuels and mining	23	274	265	540	762	1139	889	4552
Raw materials	55	17	45	55	77	286	872	1631
Intermediate goods	147	638	1071	4337	653	929	1525	1709
Iron and steel	32	138	74	879	2	2	8	26
Chemicals	74	254	425	1349	35	156	668	965
Semi-manufactures	22	155	281	930	607	646	626	526
Textiles	19	91	291	1178	9	125	224	191
Capital goods	130	548	1218	4338	3	68	767	1974
Office & telecomms	6	140	347	1208	0	20	634	1404
Transport equipment	16	80	254	804	0	1	5	73
Other machinery	108	327	616	2325	3	47	128	497
Finished goods	117	342	723	2008	58	251	348	1959
Arms and ammunition	0	1	0	0				
Commodities n.e.c.	0	0	3	12				0
Clothing	1	8	29	253	0	1	4	14

Product	Export				Import			
	1992	1997	2002	2007	1992	1997	2002	2007
Other manufactures	8	112	215	915	6	21	27	171
Food	107	222	477	828	53	229	317	1773

Source: Data from UN COMTRADE

Product	Trade Balance (X-M)				Total Trade (X+M)			
	1992	1997	2002	2007	1992	1997	2002	2007
Total	(1083)	(854)	(1079)	(547)	2026	4491	7723	23102
Annual change						16%	11%	22%
As share of China's total	-25%	-2%	-3%	0%	1%	1%	1%	1%
Raw materials	(761)	(1134)	(1450)	(5588)	916	1715	2070	6778
Fuels and mining	(739)	(865)	(624)	(4012)	784	1413	1153	5092
Raw materials	(22)	(269)	(827)	(1576)	132	302	917	1686
Intermediate goods	(506)	(291)	(454)	2628	800	1567	2596	6045
Iron and steel	30	137	66	853	35	140	82	905
Chemicals	39	97	(243)	384	109	410	1092	2314
Semi-manufactures	(585)	(491)	(344)	404	629	800	907	1457
Textiles	9	(33)	67	987	28	216	515	1369
Capital goods	126	479	451	2364	133	616	1984	6312
Office & telecomms	6	120	(286)	(196)	6	160	981	2612
Transport equipment	16	79	249	731	16	81	259	877
Other machinery	105	280	488	1828	111	375	745	2822
Finished goods	59	91	375	49	176	593	1072	3967
Arms and ammunition	0	1	0	0	0	1	0	0
Commodities n.e.c.	0	0	3	12	0	0	3	13
Clothing	1	7	24	239	1	9	33	268
Other manufactures	3	91	188	744	14	133	241	1085
Food	54	(8)	159	(946)	160	451	794	2601

Source: Data from UN COMTRADE

Table 25. China's processing and ordinary trade, in US\$B

	Processing		Balance (X-M)	Ordinary		Balance (X-M)	Total trade	Total trade balance	Growth rate
	Exports	Imports		Exports	Imports				
2002	180.0	122.3	57.7	136.2	129.1	7.1	567.6	64.8	
2003	241.9	163.0	78.9	182.1	187.9	-5.8	774.9	73.1	26.75
2004	328.3	221.8	106.5	243.7	247.7	-4.0	1,041.5	102.5	25.60
2005	416.7	274.1	142.6	315.2	279.7	35.5	1,285.7	178.1	18.99
2006	510.6	321.2	189.4	416.4	333.2	83.2	1,581.4	272.6	18.70
2007	617.6	368.4	249.2	538.6	428.7	109.9	1,953.3	359.1	19.04
2008	675.2	378.4	296.8	662.6	572.7	89.9	2,288.9	386.7	14.66
2009	586.9	322.3	264.6	529.7	534.3	-4.6	1,973.2	260.0	-16.00
2010	740.3	417.4	322.9	720.7	768.3	-47.6	2,646.7	275.3	25.45
2011	835.3	469.8	365.5	917.0	1,007.6	-90.6	3,229.7	274.9	18.05
2012	862.8	481.2	381.6	988.0	1,021.8	-33.8	3,353.8	347.8	3.70

Source: Tables 1a & 1b of Thorbecke (2013)

Table 26. Balance in Ordinary Trade (billions of US dollars)

	S. Korea & Taiwan	ASEAN5	Japan	Hong Kong, China	US	Europe	Australia	Rest of the World (oil)	Rest of the World (non-oil)	Total
2002	-8.6	-1.7	1.1	11.9	6.8	-2.8	-2.9	-11.1	14.4	7.1
2003	-13.7	-3.6	-4.2	15.4	9	-4.9	-5.5	-17.4	19.1	-5.8
2004	-14.7	-2.9	-5.6	19.9	13.7	-0.6	-9.1	-30.9	26.2	-4
2005	-32.3	1.9	-2.5	21.6	26.9	14.8	-12.3	-44.4	61.8	35.5
2006	-10.3	3	-4.8	29	40.8	21.9	-16	-63.5	83.1	83.2
2007	-8.8	5.7	-8.7	30	44.2	33	-23	-75.7	113.2	109.9
2008	-4.2	10.6	-12.1	28.6	46.6	47	-38	-123.3	134.7	89.9
2009	-23.8	1.8	-21.5	28.3	28.4	14.2	-43	-83	94	-4.6
2010	-32	-3	-38.3	34.8	43.7	22.9	-61.1	-125.9	111.3	-47.6
2011	-36.3	-5	-34	39.3	54.2	22.5	-82.8	-182.6	134.1	-90.6
2012	-41.5	16	-22.3	46	61.3	14.6	-79.3	-170.9	142.3	-33.8

Source: Tables 1a & 1b of Thorbecke (2013)

Table 27. Ordinary Exports (share of total)

	S. Korea & Taiwan	ASEAN5	Japan	Hong Kong, China	US	Europe	Australia	Rest of the World (oil)	Rest of the World (non-oil)	Total
2002	-8.6	-1.7	1.1	11.9	6.8	-2.8	-2.9	-11.1	14.4	7.1
2003	-13.7	-3.6	-4.2	15.4	9.0	-4.9	-5.5	-17.4	19.1	-5.8
2004	-14.7	-2.9	-5.6	19.9	13.7	-0.6	-9.1	-30.9	26.2	-4.0
2005	-32.3	1.9	-2.5	21.6	26.9	14.8	-12.3	-44.4	61.8	35.5
2006	-10.3	3.0	-4.8	29.0	40.8	21.9	-16.0	-63.5	83.1	83.2
2007	-8.8	5.7	-8.7	30.0	44.2	33.0	-23.0	-75.7	113.2	109.9
2008	-4.2	10.6	-12.1	28.6	46.6	47.0	-38.0	-123.3	134.7	89.9
2009	-23.8	1.8	-21.5	28.3	28.4	14.2	-43.0	-83.0	94.0	-4.6
2010	-32	-3.0	-38.3	34.8	43.7	22.9	-61.1	-125.9	111.3	-47.6
2011	-36.3	-5.0	-34.0	39.3	54.2	22.5	-82.8	-182.6	134.1	-90.6
2012	-41.5	16.0	-22.3	46.0	61.3	14.6	-79.3	-170.9	142.3	-33.8

Source: Data from UN COMTRADE

Table 28. Ordinary Exports (share of total)

	S. Korea & Taiwan	ASEAN5	Japan	Hong Kong, China	US	Europe	Australia	Rest of the World (oil)	Rest of the World (non-oil)
2002	7.93	7.20	14.54	10.13	15.79	15.64	2.57	0.07	26.14
2003	7.63	7.14	12.96	9.94	15.32	16.36	2.64	0.05	27.95
2004	7.92	7.22	11.94	9.48	15.63	16.78	2.83	0.04	28.15
2005	7.77	7.11	10.60	7.99	16.75	18.05	2.79	0.06	28.87
2006	7.59	6.75	8.98	7.71	16.59	17.89	2.79	0.05	31.65
2007	7.37	7.17	7.76	6.41	14.91	18.70	2.99	0.06	34.65
2008	7.71	7.47	7.58	5.18	14.13	19.15	3.59	0.06	35.13
2009	5.80	7.83	7.80	6.04	14.84	18.77	3.61	0.09	35.23
2010	5.91	7.70	7.09	5.61	14.92	19.08	4.15	0.07	35.48
2011	5.87	7.98	7.25	5.29	14.79	18.19	4.32	0.05	36.26
2012	5.20	9.59	6.72	5.84	15.31	15.92	4.38	0.07	36.96

Source: Data from UN COMTRADE

Table 29. Imports for Processing (billions of US dollars)										
	S. Korea	Taiwan	ASEAN4	Japan	Hong Kong, China	Singapore	US	Europe	Rest of the World	Total
2002	14.4	24.6	11.8	25	8	3.1	6.9	6.3	22.2	122.3
2003	20.7	32.5	17.9	32.8	7.7	4.7	8.1	6.9	31.7	163
2004	32	43.9	23.8	40.2	7.8	6.2	11	9.8	47.1	221.8
2005	42.8	52.1	29.6	45.2	7.7	7.8	12.8	12.2	63.9	274.1
2006	48.5	61.2	33.8	51.1	6.8	8.5	16.8	16.1	78.4	321.2
2007	56.2	69.1	39.2	59.4	7.3	8.9	18.2	18.5	91.6	368.4
2008	59.2	68.4	38.8	61.3	6.1	8.6	19.7	21.7	94.6	378.4
2009	54.7	54.7	31.4	50	7	7	15.5	17.8	84.2	322.3
2010	71.1	70	42.1	61.6	9.9	9.9	21.7	21	110.1	417.4
2011	79.6	71.9	44.7	64.9	10.1	10.1	21.9	22.9	143.7	469.8
2012	83.9	68.5	38.2	62.8	10.6	10	19.8	19.9	167.5	481.2
Processed Exports (billions of US dollars)										
2002	7	4	5.9	28.1	42.3	4.4	46.8	26.1	15.4	180
2003	9.3	5.3	7.3	35.1	54.6	5.5	62.4	41.1	21.3	241.9
2004	13.7	7.2	10.1	43.5	72.2	8.3	83.7	57.2	32.4	328.3
2005	16.5	9.2	13.4	49.7	92.7	10.7	106	75.2	43.6	416.7
2006	20.2	11.2	16.4	52.9	114	15.1	129	91.1	60.9	510.6
2007	24.6	11.9	20.1	57.7	138.5	17.6	145	114.8	87	617.6
2008	32.1	12.7	22.1	62.3	141.9	18.8	150	126.3	109.1	675.2
2009	29.1	10.9	19.9	53.6	120.7	19.7	133	102.7	97.2	586.9
2010	34.9	15	25.2	65.5	160.6	20.9	163	127.3	128.3	740.3
2011	39.6	17.7	28.6	75.2	193.8	20.6	176	135.6	148.6	835.3
2012	46.1	16.2	32	78.6	207.9	21.7	185	123.5	152.2	862.8

Source: Data from UN COMTRADE

Table 30. Share of China's processing imports (percentage)										
	S. Korea	Taiwan	ASEAN4	Japan	Hong Kong, China	Singapore	US	Europe	Rest of the World	
2002	11.77	20.11	9.65	20.44	6.54	2.53	5.64	5.15	18.15	
2003	12.70	19.94	10.98	20.12	4.72	2.88	4.97	4.23	19.45	
2004	14.43	19.79	10.73	18.12	3.52	2.80	4.96	4.42	21.24	
2005	15.61	19.01	10.80	16.49	2.81	2.85	4.67	4.45	23.31	

Table 30. Share of China's processing imports (percentage)

	S. Korea	Taiwan	ASEAN4	Japan	Hong Kong, China	Singapore	US	Europe	Rest of the World
2006	15.10	19.05	10.52	15.91	2.12	2.65	5.23	5.01	24.41
2007	15.26	18.76	10.64	16.12	1.98	2.42	4.94	5.02	24.86
2008	15.64	18.08	10.25	16.20	1.61	2.27	5.21	5.73	25.00
2009	16.97	16.97	9.74	15.51	2.17	2.17	4.81	5.52	26.12
2010	17.03	16.77	10.09	14.76	2.37	2.37	5.20	5.03	26.38
2011	16.94	15.30	9.51	13.81	2.15	2.15	4.66	4.87	30.59
2012	17.44	14.24	7.94	13.05	2.20	2.08	4.11	4.14	34.81

Source: Data from UN COMTRADE

APPENDIX 1: PRODUCT CLASSIFICATIONS BASED ON GROUPINGS USED BY THE WORLD TRADE ORGANIZATION
<p>A. RAW MATERIALS</p> <p>A.1. Inedible Crude Materials: <i>hides, rubber, cork and wood, pulp and wastepaper, textile fibers</i></p> <p>A.2. Fuels and mining products</p>
<p>B. INTERMEDIATE GOODS</p> <p>B.1. Iron and steel</p> <p>B.2. Chemicals: <i>pharmaceuticals and other chemicals, organic and inorganic</i></p> <p>B.3. Other semi-manufactures: <i>leather manufactures, rubber manufactures, cork and wood manufactures, paper, paperboard, mineral and metal manufactures.</i></p> <p>B.4. Textiles</p>
<p>C. CAPITAL GOODS - Machinery and transport equipment</p> <p>C.1. Office and telecommunication equipment: <i>Electronic data processing and office equipment; Telecommunications equipment; Integrated circuits and electronic components</i></p> <p>C.2. Transport equipment: <i>automotive products and other transport equipment and parts thereof</i></p> <p>C.3. Other machinery: <i>power-generating machinery, non-electrical and electrical machinery for particular industry</i></p>
<p>D. FINISHED GOODS</p> <p>D.1. Agricultural food products</p> <p>D.2. Clothing</p> <p>D.3. Other manufactures: <i>Personal and household goods (furniture, bedding, mattresses, cushions; travel goods, handbags; footwear); Scientific and controlling instruments; Miscellaneous (prefab, plumbing, fixtures and fittings; photographic apparatus, optical goods, watches and clocks)</i></p> <p>D.3. Others: <i>Arms and ammunition, Goods not classed by kind (coins, gold, special transactions)</i></p>

APPENDIX 2: EAST ASIA 2007 TRADE IN INTERMEDIATE GOODS AT 3-DIGIT SITC (\$M)				
Code	East Asia	Total	Import	Export
511	HYDROCARBONS,NES,DERIVTS	10958	10092	866
513	CARBOXYLIC ACIDS,DERIVTS	8908	7975	932
575	OTH.PLASTIC,PRIMARY FORM	7940	7081	859
598	MISC.CHEMICAL PRODTS,NES	6425	4033	2392
699	MANUFACTS.BASE METAL,NES	6265	2227	4038
673	FLAT-ROLLED IRON ETC.	5988	2173	3815
675	FLAT-ROLLED, ALLOY STEEL	5878	4191	1687
574	POLYACETAL,POLYCARBONATE	5810	4203	1607
582	PLASTIC PLATE,SHEETS,ETC	5809	4327	1482
651	TEXTILE YARN	5801	1910	3892
572	POLYMERS OF STYRENE	5714	5589	125
676	IRON,STL.BAR,SHAPES ETC.	5473	967	4505
652	COTTON FABRICS, WOVEN	4858	1319	3539
512	ALCOHOL,PHENOL,ETC.DERIV	4784	4191	593
653	FABRICS,MAN-MADE FIBRES	4530	2705	1826
655	KNIT.CROCHET.FABRIC NES	4338	1633	2705
674	FLAT-ROLLED PLATED IRON	4321	3630	692
522	INORGANIC CHEM.ELEMENTS	4106	1326	2780
571	POLYMERS OF ETHYLENE	3827	3747	81
679	TUBES,PIPES,ETC.IRON,STL	3746	1516	2230
657	SPECIAL YARN,TXTL.FABRIC	3089	1714	1376
658	TEXTILE ARTICLES NES	2757	69	2688
641	PAPER AND PAPERBOARD	2747	1602	1145
671	PIG IRON,SPIEGELEISN,ETC	2539	142	2398
672	INGOTS ETC.IRON OR STEEL	2499	508	1990
514	NITROGEN-FUNCT.COMPOUNDS	2454	1497	957
533	PIGMENTS, PAINTS, ETC.	2429	1758	671
691	METALLIC STRUCTURES NES	2410	175	2235
611	LEATHER	2172	1330	841
695	TOOLS	2121	1328	793
515	ORGANO-INORGANIC COMPNDNS	2080	855	1225
579	PLASTIC WASTE, SCRAP ETC	2009	2005	3
694	NAILS,SCREWS,NUTS,ETC.	1944	1166	778
665	GLASSWARE	1718	1038	680
516	OTHER ORGANIC CHEMICALS	1682	1125	557

APPENDIX 2: EAST ASIA 2007 TRADE IN INTERMEDIATE GOODS AT 3-DIGIT SITC (\$M)				
Code	East Asia	Total	Import	Export
664	GLASS	1679	748	931
642	PAPER,PAPERBOARD,CUT ETC	1667	273	1394
661	LIME,CEMENT,CONSTR.MATRL	1584	31	1553
654	OTH.TEXTILE FABRIC,WOVEN	1570	555	1014
621	MATERIALS OF RUBBER	1500	1342	158
523	METAL SALTS,INORGAN ACID	1414	222	1192
573	POLYMERS,VINYL CHLORIDE	1370	1264	106
667	PEARLS,PRECIOUS STONES	1297	121	1177
634	VENEERS, PLYWOOD, ETC.	1283	320	963
592	STARCHES,INULIN,ETC.	1277	828	449
629	ARTICLES OF RUBBER, NES	1264	778	486
524	OTHER CHEMICAL COMPOUNDS	1130	360	770
635	WOOD MANUFACTURES, NES	1087	11	1076
663	MINERAL MANUFACTURES,NES	1079	541	538
656	TULLE,LACE,EMBROIDRY,ETC	1054	497	557
531	SYNTH.COLOURS,LAKES,ETC.	1039	339	700
541	MEDICINES,ETC.EXC.GRP542	983	134	850
697	HOUSEHOLD EQUIPMENT,NES	941	45	896
662	CLAY,REFRCT.CONSTR.MATRL	941	44	897
562	FERTILIZER,EXCEPT GRP272	906	10	896
625	RUBBER TYRES,TUBES,ETC.	804	168	636
542	MEDICAMENTS	797	467	330
678	WIRE OF IRON OR STEEL	735	374	361
554	SOAP,CLEANERS,POLISH,ETC	702	436	266
693	WIRE PRODUCTS EXCL.ELECT	675	232	443
553	PERFUMERY,COSMETICS,ETC.	653	136	517
597	PREPRD ADDITIVES,LIQUIDS	637	586	51
696	CUTLERY	480	27	453
692	CONTAINERS,STORAGE,TRNSP	475	129	345
659	FLOOR COVERINGS, ETC.	443	37	406
591	INSECTICIDES, ETC.	434	78	355
581	PLASTIC TUBE,PIPE,HOSE	400	232	168
612	MANUFACT.LEATHER ETC.NES	373	70	302
666	POTTERY	359	6	354
525	RADIO-ACTIVE MATERIALS	334	23	311

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APPENDIX 2: EAST ASIA 2007 TRADE IN INTERMEDIATE GOODS AT 3-DIGIT SITC (\$M)				
Code	East Asia	Total	Import	Export
613	FURSKINS, TANNED, DRESSED	219	8	210
551	ESSNTL. OIL, PERFUME, FLAVR	175	90	84
593	EXPLOSIVES, PYROTECHNICS	77	7	70
677	RAILWAY TRACK IRON, STEEL	64	3	61
532	DYEING, TANNING MATERIALS	60	27	33
583	MONOFILAMENT OF PLASTICS	56	24	33
633	CORK MANUFACTURES	3	1	2

APPENDIX 3: EAST ASIA 2007 TRADE IN CAPITAL GOODS AT 3-DIGIT SITC (\$M)				
Code	East Asia	Total	Import	Export
776	TRANSISTORS,VALVES,ETC.	141861	114704	27157
764	TELECOMM.EQUIP.PARTS NES	52984	13811	39174
752	AUTOMATC.DATA PROC.EQUIP	47388	12000	35388
772	ELEC.SWITCH.RELAY.CIRCUT	29711	15092	14619
759	PARTS,FOR OFFICE MACHINS	26676	9357	17319
778	ELECTRIC.MACH.APPART.NES	22342	12289	10053
728	OTH.MACH,PTS,SPCL INDUST	11675	9950	1725
763	SOUND RECORDER,PHONOGRPH	11675	2281	9394
771	ELECT POWER MACHNY.PARTS	10528	2919	7609
784	PARTS,TRACTORS,MOTOR VEH	8796	5882	2913
773	ELECTR DISTRIBT.EQPT NES	7435	2283	5152
793	SHIP,BOAT,FLOAT.STRUCTRS	5558	620	4937
741	HEATNG,COOLNG EQUIP,PART	5542	2200	3342
716	ROTATING ELECTRIC PLANT	5331	1946	3385
751	OFFICE MACHINES	4853	724	4129
743	PUMPS NES,CENTRIFUGS ETC	4680	2045	2635
761	TELEVISION RECEIVERS ETC	4310	91	4219
713	INTRNL COMBUS PSTN ENGIN	4103	2842	1261
775	DOM.ELEC, NON-ELEC.EQUIPT	3815	308	3507
731	METAL REMOVAL WORK TOOLS	3587	3272	315
786	TRAILERS,SEMI-TRAILR,ETC	3585	19	3567
781	PASS.MOTOR VEHCLS EX.BUS	3531	3481	50
724	TEXTILE,LEATHER MACHINES	3467	2462	1005
723	CIVIL ENGINEERING EQUIPT	3409	2414	995
744	MECHANICAL HANDLNG EQUIP	2714	1065	1649
747	TAPS,COCKS,VALVES,ETC.	2622	1104	1518
762	RADIO-BROADCAST RECEIVER	2230	21	2209
785	CYCLES,MOTORCYCLES ETC.	2218	241	1977
748	TRANSMISSIONS SHAFTS ETC	2061	1244	818
749	NON-ELECT MACH.PARTS,ETC	2048	1239	809
746	BALL OR ROLLER BEARINGS	1642	1038	604
737	METALWORKING MACHNRY NES	1488	957	531
742	PUMPS FOR LIQUIDS,PARTS	1335	783	552
733	MACH-TOOLS,METAL-WORKING	1327	1220	107
745	OTH.NONELEC MCH,TOOL,NES	1311	655	656

APPENDIX 3: EAST ASIA 2007 TRADE IN CAPITAL GOODS AT 3-DIGIT SITC (\$M)				
Code	East Asia	Total	Import	Export
735	PARTS,NES,FOR MACH-TOOLS	907	594	314
778	ELECTRIC MACH.APPART.NES	840	484	356
774	ELECTRO-MEDCL,XRAY EQUIP	779	422	357
718	OTH.POWR.GENRTNG.MACHNRY	729	504	225
726	PRINTNG,BOOKBINDNG MACHS	699	521	178
792	AIRCRAFT,ASSOCTD.EQUIPNT	642	35	607
712	STEAM TURBINES	485	371	114
725	PAPER,PULP MILL MACHINES	405	256	150
711	STEAM GENER. BOILERS, ETC.	367	97	271
782	GOODS, SPCL TRANSPORT VEH	327	249	78
721	AGRIC.MACHINES, EX. TRACTR	243	78	165
791	RAILWAY VEHICLES.EQUIPNT	188	126	62
714	ENGINES,MOTORS NON-ELECT	169	98	71
727	FOOD-PROCESS.MCH.NON DOM	165	69	96
783	ROAD MOTOR VEHICLES NES	126	60	66
722	TRACTORS	36	1	35