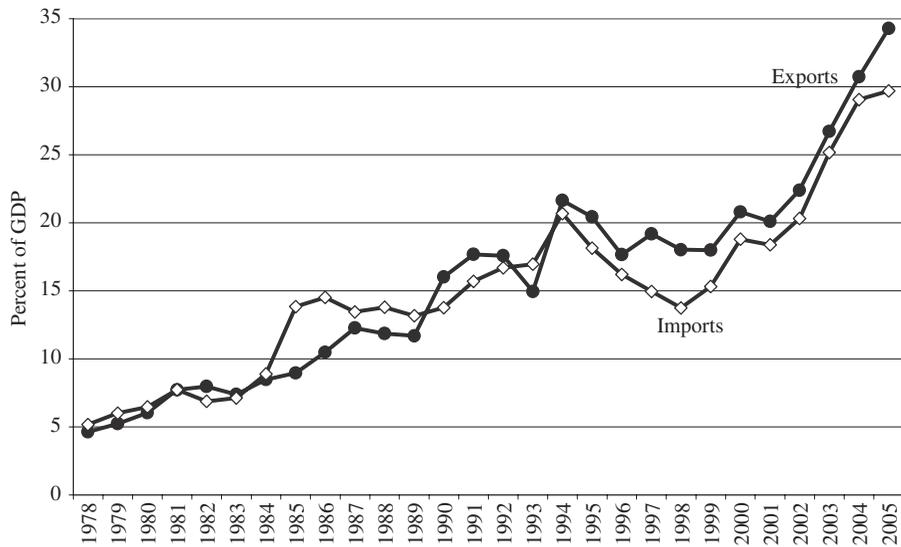


China has transformed into a global trade power. In 2005, China was the third-largest trading nation in the world (after the United States and Germany), and its trade is growing far more rapidly than that of any other large economy. China has now achieved a degree of openness that is exceptional for a large, continental economy. In 2005, China's total goods trade (exports plus imports) amounted to 64% of GDP, far more than other large, continental economies—such as the United States, Japan, India, and Brazil—which have trade/GDP ratios around 20%, the highest being Brazil's 25%. Trade liberalization has been an integral part of China's economic reform process since its beginning. The most recent phase of trade policy reform began with China's formal entry into the WTO, on December 11, 2001, which started the clock running on a series of liberalization commitments kicking in between 2001 and 2007. Besides marking a new phase of policy reform, WTO membership symbolizes China's coming of age as a participant in the global economic community.

China began trade liberalization with one of the most closed economies in the world. The institutional setup under the planned economy was designed to restrict trade to a handful of government monopolies, and actual trade was very small. Before 1979, China's total trade/GDP ratio never significantly exceeded 10%, and it reached a low point of only 5% in 1970–1971. What is particularly striking is that for almost 30 years China has undergone repeated waves of liberalization and trade promotion, and each wave has been followed by a surge of trade. In perhaps no other sector of the economy has the pattern of sustained incremental and cumulative reform been as obvious, and the outcomes so unambiguously positive for the Chinese economy, as in the foreign trade sector. Figure 16.1, which shows exports and imports as a share of GDP, shows how China's position has changed dramatically. In 1978, China's trade ratio was far below the world average. Between then and the early 1990s, China rapidly opened up and converged quickly to the world average, and the



**Figure 16.1**  
Exports and imports (share of GDP)

trade share stabilized through the late 1990s. Since 2002, trade openness has surged again. An enormous systemic transformation was necessary to convert China from one of the world's most economically isolated economies into a global economic player. International “opening” and domestic economic reform were complementary processes that are often paired in a single term to describe the post-1978 period: “Reform and Opening” (*gaige kaifang*). This institutional change is the first topic covered in this chapter.

In today's global economy, trade and investment are increasingly closely linked. In China as well, growth of trade has been driven by foreign investment that was itself part of East Asia-wide economic restructuring (see Chapter 17). The package and sequence of liberalization policies that China followed was adapted to the opportunities that China faced. A central element was a dualistic trade regime, which enabled China to adopt relatively liberal rules on export-processing trade while still protecting domestic markets. These rules enabled China to accommodate the wishes of foreign investors and helped bring China into increasingly integrated cross-border production networks. This topic will also serve as a bridge between the discussion of the institutional features shaping Chinese trade and the geographic and commodity composition of China's trade. The chapter concludes by emphasizing China's gains from trade. Its labor-rich and land-poor

economy has gained much through exchange, particularly with resource- and capital-abundant economies.

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## 16.1 BACKGROUND

Under the socialist economic system, before reforms, China was not always a closed economy. Indeed, in the early days of the People's Republic of China, from 1949 through 1960, China was quite open to trade and aid, which came almost entirely from the Soviet bloc. During the 1950s, China shut down most of the Pacific trade on which its economy had relied before the revolution and reoriented its trade toward the Soviet Union. More than two-thirds of China's trade between 1952 and 1960 was with Communist Party-led countries, and 48% was with the Soviet Union alone. Trade was a leading sector in China's economic transformation. China imported industrial materials such as steel and diesel fuel, as well as machinery, most crucially the complete industrial plants that were the centerpiece of China's first Five-Year Plan (1953–1957; see Chapter 3). China exported textiles and processed foods, and financed moderate trade deficits with the Soviet Union by borrowing. The GLF (1958–1960) at first encouraged further growth in trade with the socialist countries, as China's frenzied drive for investment increased its demand for imported machinery.

However, the economic crisis and famine that followed the collapse of the GLF led to dramatic changes, and China began a long, slow retreat into international economic isolation. Overall Chinese trade stagnated. Imports of industrial goods were curtailed sharply in the immediate post-Leap crisis, and scarce foreign exchange was diverted to desperately needed grain imports. Imports from the Soviet Union dropped sharply, and by 1970 trade with the Soviet Union accounted for only 1% of total Chinese trade, which did not grow at all between 1959 and 1970. The early 1970s were thus the low point of China's relations with the world economy, during the period of Maoist self-reliance and strategic self-sufficiency. In 1970–1971 imports and exports together were only 5% of GDP. The food and light consumer products that China had previously exported were now in short supply domestically. Moreover, there were few foreign markets open for which China had any market intelligence: China's largest single export market was Hong Kong. China became a steady customer of Canadian, Australian, and Argentinean grain exports. Available foreign exchange had to be carefully husbanded to enable the import of a few critical industrial materials and technologies. Cut off from its supplies of Soviet technology, China made a few tentative purchases from

new technology suppliers in Japan and Europe. A policy of extreme self-reliance was adopted, making a virtue out of necessity.

From the mid-1970s the economy began to recover from the worst of the Cultural Revolution, and supplies of light consumer manufactures (especially textiles) for export began to increase again. Around the same time, petroleum output from China's main field at Daqing began to increase rapidly, and some oil was available for export. As foreign-exchange earnings began to increase, China stepped up its technology purchases from the West and Japan. Fertilizer plants and steel mills were at the front of the queue of desperately needed technology items. These trading relationships seemed set to continue growing, and ambitious technology-import programs multiplied in 1977–1978. But when oil-field development programs fell through, it was unclear where the foreign currency needed to pay for the imports would come from. China for the first time was forced to confront the inherent problems created by its command-economy trading system.

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## 16.2 THE PROCESS OF TRADE REFORM

The foreign-trade system that Chinese leaders sought to reform in the late 1970s was a typical Soviet-style command-economy model. The domestic economy was rigorously separated from the world economy by what we might term a “double air lock” that controlled flows of both goods and money. The first “air lock” was the centrally controlled foreign-trade monopoly. Twelve national foreign-trade companies (FTCs) exercised monopolies over both imports and exports. Only authorized goods were allowed to pass through this layer of control. A second “air lock” was the foreign-exchange system. The value of the Chinese currency (the *renminbi*, RMB, or yuan) was set arbitrarily, and it was not convertible. Individuals had no ability to exchange *renminbi* for foreign currency without special authorization, which was very difficult to get. Overlapping, redundant controls covered the flows of both goods and money. The only way to navigate this tangle of administrative controls was to be included in the foreign-trade plan.

The “double air lock” system was designed to insulate the domestic economy from the world economy while allowing a few key commodities to pass through the air locks. The FTCs bought and sold domestic commodities at planned prices, and world commodities at world prices. When imports passed through the air lock, they were repriced in accordance with domestic planned prices, and the FTCs regularly cross-subsidized money-losing products with revenues from profitable ones. The socialist price system was thus

completely insulated from the influence of world prices. As discussed in Chapters 3 and 18, socialist prices were set so as to privilege the state-owned industrial system. Low-relative agricultural prices and high industrial prices were used to concentrate profits in state-owned factories, where they could be harvested for the government budget. If world market forces had been allowed to affect domestic prices, they would have gradually eroded the socialist price system and the government's traditional institutions for mobilizing resources. The socialist price system is an extreme version of the price relationships created by the common "import substitution industrialization" (ISI) development strategy. In ISI strategies, developing countries erect barriers against industrial imports, thereby protecting their new industries and (they hope) fostering industrialization. In China as well, one of the functions of the traditional foreign trade system was to protect state-owned industries.

Given this system of control, foreign trade served the interests of China's planners, who had simple preferences. The purpose of foreign trade was to import goods that could not be produced by Chinese firms and that would resolve domestic shortages or bottlenecks (food or raw materials) or bring in modern technology (embodied in industrial machinery). Exports were viewed as a sort of necessary evil, required because exporting was the only way to pay for imports. If goods were "not needed" for the domestic economy, they could be exported, but the cost of producing export goods was largely irrelevant, while the import of nonessential goods was severely restricted. As Chinese planners tried to step up the pace of technology imports in 1978–1979, though, they suddenly found themselves seriously short of foreign exchange and committed to imports that they could not pay for, since they were unable to increase oil exports. Foreign-exchange reserves, small to begin with, melted away at alarming speed. Foreign-trade reforms then began with an urgent attempt to increase and diversify sources of foreign exchange. China was already trading predominantly with market economies, a situation which was anomalous, given its state-monopoly trading system, and it was surrounded by dynamic export-oriented economies. This combination of motive and opportunity launched China on its program of economic opening, which culminated in dramatic changes to the world economy.

### 16.2.1 Initial Reform Steps

Rather than tackle the enormous task of transforming the whole foreign-trade system, Chinese policy-makers initially took modest but innovative steps to open up new trade channels in the southern provinces of Guangdong and Fujian in 1978–1979. The objective was to make use of the proximity of these provinces to Hong Kong and, to a lesser extent, Taiwan. At this time,

Guangdong Province was only a second-tier player in China's foreign trade, accounting for one-seventh of China's export revenues in 1978. Neighboring Hong Kong, however, was already a huge trading power. In fact, tiny Hong Kong exported as much as all of mainland China at this time. China's first step in opening came in 1978 when Hong Kong businesses were allowed to sign "export-processing" (EP) contracts with Chinese firms in the Pearl River Delta. A Hong Kong firm would ship (for example) fabric to a Chinese rural firm and have it sewn into shirts. The Chinese firm would be paid a processing fee, while the fabric and shirts would be owned by the Hong Kong firm at all times, so they did not have to pass through the foreign-trade system air locks. In this way, the export production network already created by Hong Kong could expand into China, but Chinese industrial firms were not exposed to import competition.

Shortly thereafter four SEZs were set up in Guangdong and Fujian. The SEZs—described more fully in Chapter 17—provided a secure footprint for the expansion of EP trade. Like other Export-Processing Zones (EPZs), the SEZs allowed imports in duty-free, as long as they were used in the zone to produce exports. As in other developing countries, policies like the SEZs and export processing allowed China to selectively promote exports, alongside what was still primarily a system of import substitution industrialization. The zones were enclaves that did not overly threaten the system of domestic protection. The provinces of Guangdong and Fujian were also given special powers within the existing foreign trade system. The provincial divisions of national FTCs were granted autonomy, as well as the right to retain foreign-exchange income they generated. Provincial authorities developed strong incentives to expand trade, and officials in both provinces became well known for their willingness to bend rules to facilitate trade. The special provisions, the incentives, and—above all—the proximity of Hong Kong fundamentally transformed Guangdong Province and made it into an export powerhouse. For the next 15 years, exports from Guangdong and Fujian grew twice as rapidly as those from the rest of China. Those provinces were fundamentally transformed from economic backwaters into crucial nodes in the global trade economy.

### **16.2.2 Liberalizing the Foreign-Trade System**

By the mid-1980s, having created some initial breaches in the traditional system in Guangdong and Fujian, Chinese policy-makers began the task of liberalizing the main national trading system. A comprehensive liberalization package was adopted in 1984, but the results were alarming to policy-makers—imports surged more than 50% in 1985—and reformists scaled back many of

the reforms. Despite setbacks, policy-makers maintained some flexibility, and within a few years they had transformed the rules for trade, largely dismantled the old foreign-trade monopoly, and created a framework for the subsequent growth of trade and investment. The main elements of the initial phases of trade reform included the following:

**Devaluation.** A realistic currency value is a prerequisite for successful trade reform. Before reform, China—like most socialist and import-substitution-industrialization economies—maintained an overvalued currency. In 1980 there were 1.5 Chinese yuan to the U.S. dollar, a rate at which it was generally unprofitable to export. By 1986 the value of the Chinese currency had declined to about 3.5 to the dollar, representing a real devaluation (after accounting for China's higher rate of inflation) of about 60%. In 1986 reformers also introduced a dual-exchange-rate regime, in which exporters outside the plan could sell their foreign-exchange earnings on a lightly regulated secondary market. In the market, dollars went for a higher price, thus contributing to a further, market-driven devaluation of the yuan. Exporting became profitable, and more expensive imports provided a check on import demand. The lower real value for the *renminbi* established by 1986 has been maintained ever since, at least through 2005, despite some short-term fluctuations.<sup>1</sup> China's devaluation in the 1980s coincided with a realignment of currency rates throughout East Asia. The Japanese yen appreciated markedly, followed by the new Taiwan dollar, setting the scene for a dramatic restructuring of output and trade.

**Demonopolization of the Foreign-Trade Regime.** The number of companies authorized to engage in foreign trade was allowed to expand dramatically. Industrial ministries were allowed to set up FTCs; the provincial branches of the former national foreign trade monopolies became independent; and many

1. In 1994 the official exchange rate was pegged at around 8.3 yuan per dollar; this devaluation was offset by domestic inflation within three years. Since that time domestic price stability and a fixed nominal rate have translated into a stable real rate. If the real value of the Chinese yuan is indexed at 100 in 2003, it was 250 in 1980, but it had already declined to 107 by 1986 and averaged 106 over the entire 1986–2003 period. The argument that the Chinese currency was undervalued in 2003 cannot be made based on past trends, but must stand or fall on the basis of improved Chinese capabilities and productivity after the turn of the century. Note that changes in the currency value affect the calculations of openness reported earlier in this chapter. Devaluation makes an economy appear more open because the value of the GDP denominator (measured in domestic currency units) declines relative to the trade numerator (measured in dollars). In China the average real exchange rate from 1957 through 1980 was 2.5 times the average real exchange rate in 1986 through 2003. If we use the later, more realistic exchange rate to calculate openness in 1970, total trade was 12.5% of (revalued) GDP. Though not as extreme as the values calculated using the contemporaneous exchange rates, this is still a comparatively low degree of openness.

local governments and SEZs set up trading companies. By 1988 there were 5,000 FTCs, every one of which was still state owned. Direct export and import rights were also granted to some 10,000 manufacturing enterprises. Exports were liberalized much more rapidly than imports: thousands of firms were competing to produce manufactured exports while domestic markets still remained sheltered from import competition. Equally importantly, there was a steady shift away from the trade plan and in the direction of financial incentives. The old export procurement plan was abandoned in 1988. Foreign-exchange targets and contracting systems similar to those used in industry were applied to FTCs (see Chapter 13). Provinces contracted to make fixed annual payments of foreign exchange to the central government and retained all foreign exchange earned above the contract.

**Significant Changes in Pricing Principles.** Profit retention and bonuses provided incentives, decentralization increased competition, and devaluation made exporting a potentially lucrative business. FTCs became much more cost sensitive: exporting predominantly on their own account, FTCs recontracted with domestic enterprises in a range of forms—industrial subcontracting, enterprise groups, batch processing—in an effort to lower costs. FTCs sought out cheap producers of labor-intensive goods, which were often TVEs. The share of exports produced by TVEs increased rapidly, accounting for one-fifth of procurements by FTCs by the mid-1990s. On the import side, the system steadily adapted to transmit world price signals through to the domestic economy. Imports began to be priced according to the agency system, in which domestic prices equal the world price plus a commission paid to the importer, instead of assigning a domestic planned price equivalent. Stronger incentives pushed trading companies to adapt to opportunities that were increasingly shaped by world prices.

**Creation of a System of Tariffs and Nontariff Barriers.** Chinese policy-makers proceeded cautiously. They were wary of making mistakes, afraid of import surges, trade deficits, and hard currency debt. As reformers dismantled the planned trade system, they erected high tariff walls and substantial nontariff barriers to maintain protection of the domestic market. Under the old air lock system, tariffs had existed but had not been important at all, because the FTCs would carry out the trade plan and redistribute revenues and tax payments as necessary. In the early 1980s a new set of tariffs were promulgated that raised tariffs, which stayed high for the next decade. In 1992, according to the analysis in World Bank (1994, 56), China's tariffs were similar to other highly protected developing countries. The unweighted mean

tariff was 43%, and the trade-weighted mean tariff was 32% (the same as Brazil at that time). Equally important were nontariff barriers (NTBs). The same World Bank study found that 51% of imports were subject to one or more of four different overlapping nontariff barriers. Indeed, NTBs and tariffs were “used in a complementary fashion to achieve the government’s objectives” (p. 67).<sup>2</sup>

The most important NTB was the severely limited extension of trading rights. Direct domestic market access was reserved for FTCs, all of which were state owned. Manufacturing enterprises sometimes had limited trading rights but were authorized to import only for their own production needs. Moreover, FTCs were only chartered to engage in business within a particular product range (“business scope”), were often limited to a designated province, and were sometimes restricted to a specified category of customers. A number of the bigger central-government FTCs had monopolies on imports of sensitive commodities such as grain and fertilizer. The limits on trading rights kept most domestic firms from exploiting the relatively liberal provisions for EP contracts. Overall Chinese imports were regulated by a combination of tariffs, quotas, and administrative guidance exercised over state-owned trading companies.

**Import Substitution and Export Promotion.** By the mid-1980s, China had moved from a planned trading system to a system of high tariffs, multiple nontariff barriers, and abundant administrative discretion, a system that was in many ways typical of developing country ISI strategies. In fact, for China, this transformation had many advantages. The trading system, though still dominated by state-run organizations with significant market power, was increasingly oriented toward profits and revenue (in world prices). Steady reforms had created an essential minimum of flexibility that was a prerequisite for success in further reforms and that allowed the foreign-trade system to harmonize with changes in the domestic economic system. Finally, the changes that had been made corresponded to a process of “tariffication,” in which trade barriers were first converted to tariff equivalents, so that China could negotiate reductions in order to join the WTO.

2. For example, nonessential consumer goods were not subject to NTBs but typically had prohibitively high tariffs. Commodities that the government viewed as essentials were subject to low tariffs but restrictive NTBs, typically being “canalized” to monopoly FTCs administered by the central government. For example, in 1992 grain, fertilizer, and steel were subject to tight quantitative controls, but they had tariffs under 20% and together accounted for a significant share (14%) of total imports. Finally, priority sectors such as automobiles and industrial machinery had overlapping high tariffs and NTBs.

But this partially reformed system was by no means liberal enough to create the dramatic Chinese export success that came later. The net impact of the system was to discourage exports, just as was the case in other ISI regimes. China therefore borrowed a page from the East Asian playbook and adopted selective measures of export promotion, designed to offset the antiexport bias for at least some products. A partial system of rebates of value-added taxes for exports was begun in 1985 and expanded in the 1990s. Banks provided preferential interest rates to exporters and lent generously to new investment projects designed to produce exports. Localities still had export targets to fulfill. But the most important such measure was the creation of an entirely separate export-processing trading regime, which allowed exporters to simply *bypass* the old centralized foreign-trade monopoly.

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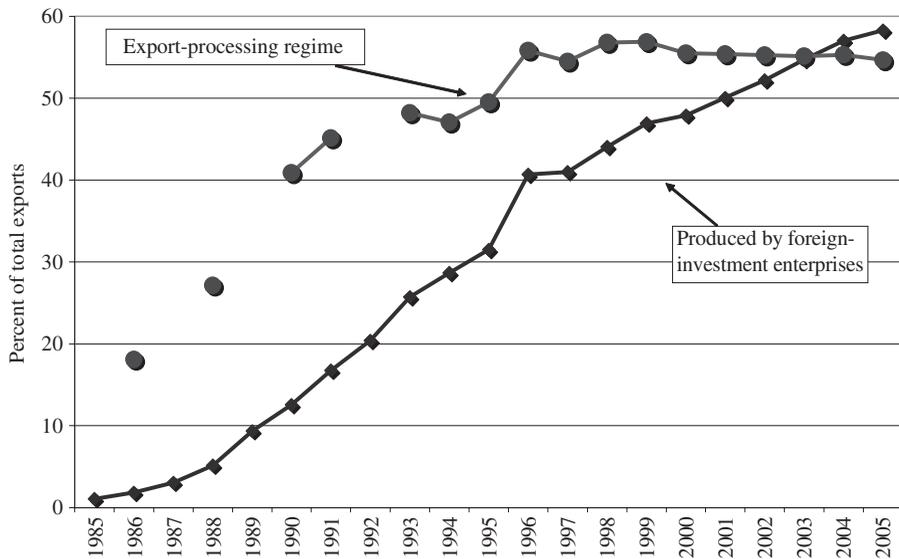
### 16.3 A DUALIST TRADE REGIME: THE EXPORT-PROCESSING SYSTEM

The early experiments with export-processing contracts that had begun in Guangdong Province as early as 1978 gradually grew into a fully blown export-processing regime. After 1986, recognizing the opportunities for China in the ongoing restructuring of Asian export production networks, Chinese policy-makers started supporting the “Coastal Development Strategy.” All types of firms in the coastal provinces, including TVEs, were allowed to engage in these processing and assembly contracts. Foreign investors began to move into China’s coastal provinces on a significant scale, and they were allowed to adopt a more flexible variant of export-processing contracts in which they took ownership of components and raw materials imported duty-free. By around 1987, China had established what were, in essence, two separate trading regimes. EP or export-promotion trade, responding to the extremely open regulations in which it developed, grew rapidly and soon surpassed trade through the original regime in size. That traditional, but now partially reformed, system of “ordinary trade” (OT) also grew, but much more slowly. The exemption from duties on imported inputs provided a significant cost advantage to those in the EP regime. More important was that under the EP regime exporters—predominantly FIEs—were allowed to sidestep the entire complex and unwieldy apparatus of import controls, canalization, and regulatory monopolies that restricted development of trade under the OT regime. Unlike virtually all domestic enterprises, FIEs were not required to go through state-run foreign-trade corporations (FTCs) to import. The association between the EP regime and FIEs

meant that FIEs had a privileged status in the foreign trade system different from most domestic enterprises, especially when combined with special tax concessions made to attract foreign investment (Chapter 17).

None of the provisions of the Chinese EP regime were novel: All had their counterparts elsewhere in East Asia, and indeed, around the globe. What is unusual, however, is the sheer scale on which these provisions were introduced in China. In most countries such concessionary provisions are circumscribed within a designated and strictly policed EP zone. In essence, China created a gigantic EP zone throughout the entire coastal region. Although China's SEZs attracted a lot of attention, the boundaries of the export-processing regime actually extended far beyond the SEZs, to wherever an export-oriented FIE was located. These institutional provisions strongly reinforced advantages that FIEs had to begin with. As discussed in Chapter 17, most FIEs were from the neighboring economies of Hong Kong and Taiwan, and most had experience with export manufacturing and marketing. Chinese reforms accommodated their interests and allowed them to transplant this expertise to the mainland.

Figure 16.2 shows the enormous difference these factors made. The EP regime and foreign-invested enterprises together were the motor of China's export expansion. Figure 16.2 shows graphically the contribution of both these categories. EP trade climbed to 56% of total exports in 1996, then plateaued as the system began to move toward more comprehensive liberalization. FIEs have inexorably increased their share of total exports in every year, starting from only 1% in 1985 and reaching 58% in 2005. From a small base, FIEs gradually became important players in China's export growth; and then between 1992 and 2005 they accounted for fully 63% of incremental exports. The FIE share of the increment has shown no tendency to decline in recent years. Clearly, the liberalization of the environment for foreign investment has played a fundamental role in China's export success. The flip side of FIE growth has been the relatively less impressive performance of domestic firms. Domestic exporters, predominantly SOEs, have also greatly increased their exports, but have been less successful in gaining access to new world markets. Moreover, during the shakeout of the state sector (1995–1999), domestic firm exports stagnated for four years. Between 1985 and 2004 total exports increased 17.6% annually while domestic firm exports increased 12.5% annually, a respectable but far from miraculous performance.



**Figure 16.2**  
Share of exports from export-processing regime and foreign-investment enterprises

## 16.4 TOWARD AN OPEN ECONOMY

From the mid-1990s, building on the achievements in creating a functioning trading regime, China began to move in the direction of a genuinely open economy. Membership in the WTO was a powerful motivating factor. Reforms taken before WTO accession, in order to strengthen the case and prepare the economy for WTO membership, were just as important as those undertaken afterwards. A common theme linking these reforms is to reduce the degree of dualism in the trade regime and prepare the way for a more open economy. While mandated by WTO requirements, these reforms were also very much in accord with the objectives of reformists, who thus used the lure of WTO membership to help push through reforms that they favored in any case. The discussion of these changes first covers the currency reform of 1994, then the bundle of changes required by WTO membership. The impact of WTO-related liberalization is covered in section 16.4.3.

### 16.4.1 Currency Convertibility

On January 1, 1994, reformers abolished the secondary “swap” market for foreign exchange that had been one of the important transitional devices used

for the previous eight years. The exchange rate was unified near the lower swap-market rate, and access to foreign currency was greatly liberalized: within 18 months, current-account convertibility was achieved. In effect, this means that any authorized importer of goods and services can purchase foreign exchange upon presentation of documentation of the trade flows. The 1994 foreign-exchange reforms were part of the coordinated package of fiscal, financial, and trade reforms that were rolled out simultaneously at the end of 1993 and beginning of 1994 (Chapter 4). One of the advantages of policy coordination was that the national taxation system was shifted to a much larger reliance on value-added taxes (VAT). The rules of the WTO permit exporters to rebate VAT on exports. Chinese policy-makers were thus quick to see the advantage of such rebates, and the 1994 reforms made the previously limited program of VAT rebates nearly universal. The 1994 reforms succeeded in moving China to a more integrated trading system with a minimum of disruption.

The 1994 success was only partial, however. Initially there had been high hopes that China would move quickly to full currency convertibility, including the capital account, and establish a “managed float” for the Chinese currency. A flexible exchange rate would adjust to long-run changes in supply and demand for foreign exchange but the Central Bank would still intervene in the foreign exchange market to stabilize the currency. Reformers were initially elated when demand for the currency stabilized at the level they chose, 8.3 *renminbi* to the dollar, nearly the old swap-market rate. The next step, however, did not go as they had hoped. Restrictions on the capital account proved difficult to eliminate in a period of macroeconomic turbulence. Following the Asian Financial Crisis of 1997–1998, all Asian currencies, including the *renminbi*, came under intense downward pressure, and policy-makers decided to hold the line and not allow the currency to depreciate. The managed float gradually became a de facto fixed exchange rate vis-à-vis the U.S. dollar, and the Hong Kong dollar, which was already pegged against the U.S. dollar. When Chinese exports started to grow rapidly after 2002, the fixed exchange rate, lack of capital account convertibility, and relatively low value of the *renminbi* became significant diplomatic and economic issues between China and the United States.

#### 16.4.2 World Trade Organization Membership

When China formally applied to rejoin the GATT (General Agreement on Trade and Tariffs, the forerunner of the WTO) in 1986, it seemed that it might be a quick and relatively painless process. After all, China was at that time a pioneer of market reforms and was looked upon in the West at least as

favorably as Poland and Hungary, which had entered the GATT in the 1960s and 1970s. But in fact it was not until 15 years later that China finally became the 143rd member of the WTO, on December 11, 2001. During those protracted negotiations, both China and the world trading institutions changed in fundamental ways.

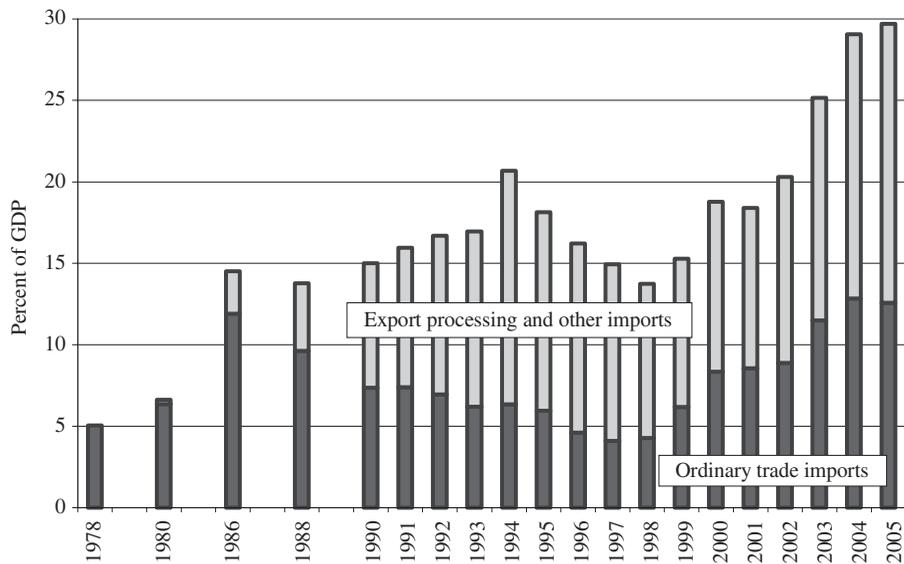
One important reason for the lengthiness of the process, to be sure, was the shift in attitude toward China that occurred in the wake of the 1989 Tiananmen massacre and the dissolution of the Soviet Union the following January. After 1989 there was no longer a constituency for an “easy” entry by China into WTO. Even more important was the steady emergence of China as a serious export power. China was taken seriously as a competitive challenge, and antidumping actions against China had increased. At the same time, the frustrations of foreign companies dealing with China’s relatively closed domestic market—one of the offshoots of the dualistic trading regime described earlier—had eroded support for giving China secure market access in developed-countries without a strict quid pro quo.

At the same time, the Uruguay Round negotiations that created the WTO in 1996 signaled a fundamental shift in the terms of global trade negotiations. Earlier agreements had been restricted to a clearly delineated “foreign-trade sector,” but today are increasingly concerned with more fundamental systemic characteristics of the negotiating economies. In part, this shift came about because modern developed economies are now primarily service economies, and so international agreements understandably go beyond the former focus on internationally traded goods. Since services almost always involve some physical presence at the point of delivery, agreements about “trade in services” inevitably involve negotiations about regulation and investment conditions in the receiving, or importing, country. During the Uruguay Round itself, trade liberalization was achieved by a “Grand Bargain” between developing and developed countries: Developing countries got the promise of greater access for their light manufactures, especially textiles, and agricultural products in developed-country markets, while developed countries got the promise of improved access for, and protection of, their corporations operating in developing-country economies. With this “Grand Bargain,” the way was cleared for the creation of the WTO and the extension of trade negotiations into new areas relating to services, investment, and intellectual property rights. This was exactly the bargain that China was required to make as a condition for WTO membership: granting broader and fairer access to its economy in exchange for greater access for its light manufactured exports to other countries. The terms of this complex bargain involved a vastly more complicated negotiating process than initially anticipated.

On the trade side, the most fundamental issue from the beginning was the requirement that China open up the OT regime and dramatically reduce the dualism of its trading regime. Most important was China's commitment to extend trading rights without restrictions, including giving trading rights to domestic and foreign private companies. Eventually, these new provisions were included in a foreign-trade law effective July 1, 2004. Under this law the Chinese government no longer restricts trade to a limited number of state-owned FTCs, except in a few agricultural commodities where state trading is still permitted. In those cases, China committed to a system of tariff-rate quotas (TRQs) for specific products, agreeing to lower tariffs up to a certain ceiling (after which higher tariffs kick in). The accession agreement specifically commits China to distribute a minimum share of the TRQ allocations to non-state traders. The commitment to a more accessible trade system was the most important component of WTO accession in the foreign-trade arena. Next most important were commitments to lower tariffs. In fact, China began lowering tariffs in preparation for WTO membership immediately after the foreign-exchange reforms of 1994, well before the actual agreements were finalized. The average nominal tariff was reduced in stages from 43% in 1992 to 17% in 1999, the year when the breakthrough in WTO negotiations finally came. In the actual agreement, China agreed to lower average industrial tariffs to 9.4% by 2005, and this rate was actually achieved in 2004. The agreement lowered average agricultural tariffs to 15%, which was also easily achieved.

### 16.4.3 Openness Revisited

This chapter began with a simple discussion of the openness of the Chinese economy, based on the ratio of total trade to GDP. Here we focus in the first instance on imports: after all, an economy's openness to imports is the most important dimension of its overall openness to trade, since it indexes both openness to competition and access to lowest-cost supplies. Figure 16.3 shows that imports as a share of GDP have climbed strongly, with a pullback between 1994 and 1998. Figure 16.3 further divides imports into two categories: ordinary trade (OT) imports on the bottom and EP and all other imports on the top. Recall that OT imports are sold on the domestic market, represent potential competition with domestic producers, and were the focus of tariff and nontariff barriers under the dualistic trade regime. It is striking that OT imports initially increased rapidly in the mid-1980s, reaching 12% of GDP in 1986, but then fell back to their starting point, below at 4.1% of GDP, by 1997. The import side supports the picture we sketched mainly from the export side: most of the trade growth came in the EP regime through the mid-1990s, and the OT regime was not liberalized significantly, and in some



**Figure 16.3**  
Openness measures of the Chinese economy

respects was even tightened. An early “false start” of trade liberalization through the OT regime was abandoned, and China shifted to its dualistic ISI regime.

From this baseline, we can see how dramatic the change associated with WTO membership has been. From its low point in 1997–1998, OT imports have surged as a share of GDP, surpassing previous highs, and reaching 13% in 2004. EP trade also grew rapidly, as new electronics sectors (especially laptop computers) grew rapidly and made extensive use of EP trade provisions. But it is the surge in OT trade imports that is most directly attributable to WTO-induced trade liberalization, and it is also the best index of the degree of openness. By the measure of OT imports/GDP ratio, China became more than three times as open to world trade in the six years from 1998 to 2004. The huge surge in China’s foreign trade after 2002 can be directly associated with very recent liberalization of the import regime, driven by WTO membership.

## 16.5 OUTCOMES: RAPID GROWTH AND STRUCTURAL CHANGE

Each stage of the liberalization of China’s foreign-trade system has been associated with a surge in exports and imports.

### 16.5.1 Exports

After 1979 exports grew rapidly as existing opportunities were exploited more fully and the need to earn foreign exchange was given priority. At first exports grew rather indiscriminately: As late as 1985 petroleum was China's largest single export, accounting for 20% of export earnings.

The really fundamental changes in the composition of China's exports date to 1985, when we begin to see the impact of the Coastal Development Strategy, the full-fledged rollout of the EP trading regime, and the increased participation of FIEs in export growth. Between 1985 and 1995, China's trade grew extremely rapidly. Moreover, there was a dramatic shift to labor-intensive commodities and a correspondingly large decline in natural-resource-based products. Indeed, it is one of the great paradoxes of China's foreign trade *before* liberalization that—despite China's obvious factor endowments—light, labor-intensive manufactures were a fairly modest proportion of China's exports. However, by 1995 all of China's top export commodities were labor-intensive manufactured goods.<sup>3</sup> Most striking up to that time was the sustained growth in textile and garment exports, and the rapid rise of sporting goods and miscellaneous manufactured goods.

Trade growth slowed in the 1996–2001 period. Trade as a share of GDP stabilized, though both were still growing at a healthy clip. The slowdown was partly due to the impact of external events (such as the Asian Financial Crisis), partly due to the 30% real appreciation in the RMB between 1994 and 1997, and partly due to the lack of dramatic progress in trade liberalization during that period. Chinese policy-makers seemed to accept that China's reliance on exports had reached a certain plateau and that future economic growth should be driven by the growth of domestic demand. The VAT rebate rate was reduced, and procedures for EP imports tightened, both actions being driven primarily by revenue considerations.

But the renewed liberalization of the trading regime signaled by WTO accession has led to a renewed surge in China's trade. After 2002 growth of both exports and imports surged above 20% per annum, and stayed high.

3. A number of studies have described the shift to labor-intensive manufactures in Chinese exports. According to the International Economic Databank (IEDB) maintained at the Australian National University, the share of labor-intensive products in China's exports increased from 37% in 1984 to 54% in 1994, while the share of agricultural and minerals-intensive products together declined from 49% to 15%. In addition, according to the classification used by the IEDB, capital-intensive exports increased from 14% to 31% of total exports (again 1984–1994). The World Bank (1994, 9), using a different classification system based on U.S. factor proportions, found that between 1980 and 1990 labor-intensive manufactures went from 39% to 74% of total exports (with unskilled labor-intensive goods accounting for 29% and 51% of the total, respectively). See Naughton (1996) for discussion.

Significantly, this trade surge has been associated with a dramatic increase in the share of machinery and electronics items in China's exports, the share of which surpassed 50% of total exports in 2003. At the same time, growth of (now traditional) labor-intensive manufactures, particularly garments, has remained robust. Driven in part by anticipation of the end of textile import quotas at the end of 2004, production and exports have shifted to China, which has maintained its position as the lowest-cost producer. Overall, the composition of China's exports has shifted to much better reflect China's abundant labor endowment.

### 16.5.2 Imports

Table 16.1 shows that China primarily exports finished goods. Table 16.2 shows that these goods are mainly miscellaneous manufactured articles plus machinery and electronics. In the case of imports, it is the larger volume, rather than drastic changes in composition, that has increased China's gains from trade. Capital-intensive products have continued to account for about two-thirds of imports. In addition, closer inspection of those commodities indicates that many of them serve essentially as land substitutes, stretching China's limited land endowment. Examples include fertilizer, food grains, synthetic fiber materials, and iron ore, each of which is a major Chinese import. Capital-intensive commodities are often heavy, process-technology industries: steel, chemicals, synthetic fibers, plastic raw materials. Skill-intensive commodities include machinery, transport machinery, and electronics. China is a big net importer of these two commodity groups and a big net exporter of labor-intensive commodities. As a result, Chinese trade overwhelmingly corresponds to comparative-advantage principles and is likely of enormous benefit to the Chinese domestic economy. Another result is that China has substantial impact on world markets for a number of these commodity groups: copper, steel, fertilizer, and, increasingly, petroleum. These are areas where Chinese demand can move world markets.

Table 16.1 shows Chinese trade by stage of production, showing clearly how China imports raw materials and components, while exporting final goods. Indeed, two-thirds of China's imports are intermediates, and two-thirds of China's exports are final goods. What are the specific goods categories that correspond to these general aggregates? Table 16.2 shows a breakdown of China's imports and exports in 2003.

### 16.5.3 High Technology Trade

The rapid increase in China's export of electronics goods—and especially the export of laptop computers—is truly impressive. Does this trend mean that

**Table 16.1**

Trade by state of production, 2002

	Imports (percent)		Exports (percent)
Primary goods	10.3	Primary goods	2.9
Intermediate goods	63.3	Intermediate goods	37.1
Parts and components	27.5	Parts and components	15.5
Semifinished goods	35.9	Semifinished goods	21.6
Final goods	26.3	Final goods	60.0
Consumer goods	5.1	Consumer goods	40.3
Capital goods	21.2	Capital goods	19.7

**Table 16.2**

Composition of Chinese trade, 2003

	Imports (billion U.S. dollars)	Exports (billion U.S. dollars)	Imports (percent of total)	Exports (percent of total)
0-1. Food, beverages, tobacco	6.5	18.6	1.6	4.2
2-4. Crude materials, fuel, oils	66.3	16.3	16.1	3.7
33. Petroleum	26.7	5.8	6.5	1.3
5, 6. Chemicals and manufactured materials (excl. 65. textiles)	98.7	61.7	23.9	14.1
51. Organic chemicals	15.9	5.3	3.8	1.2
57. Plastics in primary forms	13.9	0.8	3.4	0.2
67. Iron and steel	22.0	4.8	5.3	1.1
7. Machinery and transport equipment	192.9	187.9	46.7	42.9
71-74. Industrial machinery	51.8	22.9	12.6	5.2
75-77. Electronic, telecom, and electrical machinery	123.5	150.0	29.9	34.2
8. Miscellaneous manufactured articles	33.0	126.1	8.0	28.8
82. Furniture	0.5	9.0	0.1	2.1
84. Clothing	1.4	52.1	0.3	11.9
85. Footwear	0.4	13.0	0.1	3.0
89. Miscellaneous	5.6	31.5	1.4	7.2
Total	412.8	438.4	100.0	100.0
NB: Specialized machinery, transport equipment, and instruments (71-74, 78, 79, 87)	89.6	44.1	21.7	10.1
NB: Textiles and garments (65, 84)	15.6	79.0	3.8	18.0
NB: Light manufactures (8, minus 87 instruments, plus 65 textiles)	27.0	146.8	6.5	33.5

China is becoming a technology power? While the answer to this question is complex, as discussed in Chapter 15, the immediate answer, based on the trade data, is “No, not yet.” Virtually all of the high-tech electronics goods that China exports are produced under the EP trading regime. Indeed, in 2005, FIEs accounted for fully 88% of high-technology exports, nearly all under EP arrangements. Electronics production worldwide is carried out on the basis of global production networks, chains that link together production, research, and services that are carried out in many different countries. China is already an integral link in many of these production networks. But inspection of the actual products exported and the processes carried out in China reveals that China is overwhelmingly concentrated on the final assembly stage of production. This is a labor-intensive, medium-skilled activity, not a “high-tech” activity. Classification of China’s exports by technological level can thus be extremely misleading. China has displayed a rapid increase in export of high-technology goods in recent years. However, the actual value added in China is generally not high-skilled activity, and these products are actually most usefully grouped with other labor-intensive products (such as garments and toys), the export of which has soared in recent years.

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## 16.6 REGIONAL COMPOSITION OF TRADE WITHIN CHINA

Foreign trade understandably benefits the coastal regions of China, and the coastal provinces have grown significantly more rapidly than inland provinces on the strength of trade-related demand. Different coastal regions have, however, responded to the stimulus of trade opportunities in significantly different fashion. First, as can be expected, the trade policies that were followed provided an enormous stimulus to the southern coastal provinces of Guangdong and Fujian. Table 16.3 shows that the share of China’s total exports produced by Guangdong, Fujian, and Hainan (which was spun off from Guangdong Province in 1988) rose dramatically from 16% in 1978 to 46% during the mid–1990s. These provinces benefited the most from preferential policies during the 1980s, and from the growth of foreign investment and EP trade. Guangdong, in particular, was encouraged to take “one step ahead” of the rest of the economy and become an economic showcase—perhaps even to become a “Fifth Tiger,” following the “Four Tigers,” the newly industrialized economies of Korea, Taiwan, Hong Kong, and Singapore.

During this initial period, the rise of the south coast eclipsed the growth of the region that had traditionally been China’s richest and most sophisticated

**Table 16.3**  
Regional shares of China's exports (percent)

	1978	1994–1998	2005
Southeast	16	46	36
Lower Yangtze	34	21	38
Northeast and North Coast	39	23	19
Rest of China	11	10	7

Southeast: Guangdong, Fujian, and Hainan.

Lower Yangtze: Shanghai, Jiangsu, and Zhejiang.

Northeast and North Coast: Liaoning, Jilin, and Heilongjiang; Beijing, Tianjin, Hebei, and Shandong.

economic macroregion, the Lower Yangtze (Chapter 1). The Lower Yangtze—grew robustly in the 1980s but was not oriented toward foreign trade in the same way as the south coast. The Lower Yangtze's share of China's exports dropped substantially, from 34% in 1978 to only 21% in the mid-1990s. However, since the mid-1990s, the Lower Yangtze has begun its own dramatic process of trade-related growth. Powered by significant inflows of foreign investment (see Chapter 17), the Lower Yangtze has seen its share of Chinese exports increase significantly, climbing back above its previous high to 38% in 2005. The Southeast, by contrast, has experienced its share declining to 36% in 2005, although its exports have continued to grow at a pace that would be considered quite healthy for most economies.

The northern regions have declined steadily in relative terms. Traditionally, the closely linked Northeast and North Coastal regions were a major force in China's trade. The northern regions exported a much more diversified set of goods, including heavy industrial products and, of course, oil. During the early 1980s, the share of this region at first increased as oil from the northeast, sold at historically high international prices, made a substantial contribution to China's foreign-exchange earnings. But since the 1980s the north has been in relative decline, falling below 20% of total exports in 2003. In particular, the share of the three Northeast provinces slipped below 5%, and the region was in danger of becoming economically marginalized.

Guangdong province is still the single largest exporting province, accounting for 31% of China's exports—and 38% of high technology exports—in 2005. Moreover, the trade/GDP ratio for Guangdong is impressively high, at 178%, making it very similar to Malaysia, which has a trade/GDP ratio of 175%. The Lower Yangtze, rising rapidly, has trade/GDP around 90%, like the East Asia average (trade/GDP equals 81%). The “rest of China,” with trade/GDP at 23%, is very similar to Brazil. There are dramatic differences in the degree of openness and of trade dependence among China's regions.

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## 16.7 CONCLUSION

China has achieved trade success through a combination of domestic economic reform with an astute accommodation of the opportunities created by East Asian economic restructuring and foreign investment. It is an especially impressive achievement given how far China has come: From one of the most closed economies in the world, China has developed into the most open large economy in the world, and it has done so with a minimum of disruption and trade-related economic distress. How are we to understand a large, continental economy with “openness” sufficient to yield a trade-to-GDP ratio of 64%? First, we need to take account of the fact that trade is very unequally distributed within China. China is like an economic union of a very open coastal economy and a less integrated inland economy: like a union of Malaysia and Brazil, for example. Second, the very high trade/GDP ratios of economies like Malaysia or Thailand are achieved precisely because those countries are integral parts of cross-border global production networks (GPN), especially prominent in electronics. Those networks involve high-value items crossing borders, as trade, in order that relatively simple processing activities can be performed in different locations. Therefore, the value added in the export sector is actually quite small relative to the value of the trade flows. Of course, this is exactly the kind of activity that the Chinese dualistic trade regime was designed to encourage in the first place. But this outcome reminds us that the trade/GDP ratio is an index of openness, not a measure of the size of the traded-goods sector. In fact, actual Chinese value added in the export sector is a smaller share of total national value added than might have been guessed just by taking clues from the trade/GDP ratio.

China's trade growth has enormous momentum. WTO-related liberalization has lowered transaction costs as well as import costs, as access to trading opportunities has multiplied and been exploited. The abolition of textile quotas at the end of December 2004 is having a tremendous impact on China's exports. Continuing competitiveness in textiles and garments underlines the enduring impact of China's abundant labor endowment. The root of China's comparative advantage is still in labor-intensive manufacturing, where the highly elastic supply of cheap semiskilled labor will continue to work to China's benefit for at least a decade. In the years since WTO accession a more open and integrated trade regime has propelled China to the front ranks of world traders. Further stages of integration with the world economy will bring substantial benefits to China. Because China's factor endowments vary so significantly from those of the developed countries, China has a lot to gain from

globalization. Its labor-rich, land-scarce, and capital-scarce economy benefits from exchange based on comparative advantage, while its dynamic and relatively well-educated labor force can quickly absorb technology and skills by observing and imitating global best practice. China has more to gain from globalization than any other economy in the world, except perhaps the United States.

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Promptly updated data and some analytic papers are available on the Ministry of Commerce Web site: <http://www.mofcom.gov.cn/tongjiziliao/tongjiziliao.html>. The home page leads to significant English-language content, but coverage is inconsistent.

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