

**UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT**

**CHINA'S TERMS OF TRADE IN MANUFACTURES**

**1993–2000**

**Zheng Zhihai**

**Zhao Yumin**

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**DISCUSSION PAPERS**

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# CHINA'S TERMS OF TRADE IN MANUFACTURES 1993–2000

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## PREFACE

In the late 1970s, Chinese economic policy underwent a dramatic change. The self-seclusion policy was abandoned and replaced by a policy of economic reform and opening to the outside world – a policy characterized by the promotion of foreign trade (particularly exports), the active utilization of foreign capital, the gradual opening of domestic markets and the introduction of competition. This policy not only successfully activated the Chinese economy and helped it to develop at an unprecedented speed, but also initiated the historic course of the integration of the Chinese economy into the world economy.

As the Chinese economy has become increasingly integrated into the international economy, its terms of foreign trade have also experienced critical changes. This paper examines terms of trade for China's manufactured goods over the period 1993–2000. For an in-depth and accurate understanding of the changes in terms, this study follows the internationally recognized method and divides China's manufactured goods into four categories: labour-/resource-intensive products, low-skill/low-tech/low-capital-intensive products, medium-skill/medium-tech/medium-capital-intensive products, and high-skill/high-tech/high-capital-intensive products. (Hereafter the latter three categories are referred to as low-tech products, medium-tech products and high-tech products.) Based on the aggregations, the import and export price indices are formulated by the Laspeyres aggregative formula  $P = \frac{\sum P_n \cdot Q_n}{\sum P_0 \cdot Q_0} \times 100$  per cent, and the terms of trade of Chinese manufactures are calculated as the ratio of the change in the price of the exported goods to that of the corresponding imported goods.

To facilitate comparison, the starting year, 1993, was originally to be used as the base period. However, the year 1995 was finally chosen as the base period in view of the major changes that have taken place in recent years in the structure of Chinese commodities for international trade, and which are reflected by vast differences in this structure before 1993 and after.

Chapter I of this paper presents comparative studies of the terms of trade for manufactures and classified manufactures between China and different partners. Chapter II explores the causes of changes in China's terms of trade over the period 1993–2000 by reviewing and comparing the development of China's import and export price indices and assessing the factors behind these developments. Finally, Chapter III outlines some proposals for improving China's terms of trade.

### **ABSTRACT**

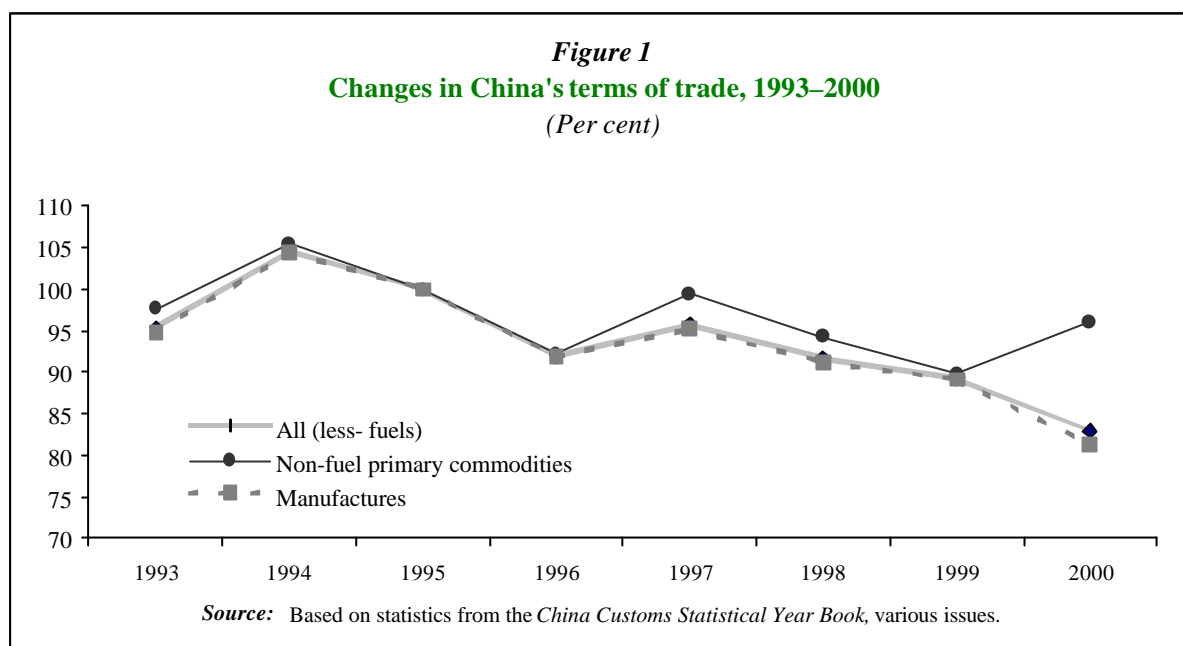
*Recent years have witnessed the rapid growth of China's imports and exports of manufactures, as well as critical changes in its terms of trade. This study compares trends in China's price indices for exports and imports between 1993 and 2000. It also examines the terms of trade for China's manufactures with respect to (i) different partner countries and country groups, including all developed countries, all developing countries, the European Union, the United States, Japan, the four first-tier East Asian NIEs, the ASEAN Four (Indonesia, Malaysia, the Philippines and Thailand) and other developing countries, and (ii) different product groups, including total exports and imports as well as various categories of manufactured products. The study attempts to explore and assess the factors that shaped the trends, and, based on the resulting conclusions, to make recommendations for developing countries seeking to improve their terms of trade for manufactures.*

### **I. TRENDS IN CHINA'S TERMS OF TRADE, 1993–2000**

Between 1993 and 2000, the index for China's general terms of trade (covering primary as well as manufactured goods) dropped by 13 per cent (figure 1 and table 1). A drop in the index for manufactured goods was the chief factor responsible for a reduction in the index for China's general terms of trade; during this period, the index for manufactured goods fell by 14 per cent. The index for non-fuel primary products decreased by 2 per cent. As a matter of fact, during most of the period between 1993 and 2000, the terms of trade for non-fuel primary and manufactured goods moved in tandem, whether up or down. But from 1999 onwards, the two parted ways, with terms of trade continuing to deteriorate for manufactured goods while improving for non-primary goods. However, this did not result in an overall improvement in terms of trade, since primary goods account for only a small portion of China's foreign trade and the improvement in terms was too modest.

In the period from 1993 to 2000, China's terms of trade experienced ups and downs, with the 1994 and 1997 being periods of slight improvements. Terms of trade for both non-fuel primary goods and manufactured goods improved in 1994, with a larger increase for the latter category. This development was caused mainly by the depreciation of the yuan arising from the significant reform of China's foreign exchange regime implemented in 1994, which strengthened the competitiveness of China's exports (manufactured goods in particular) and meanwhile effectively held back import growth and depressed import prices. However, the impact of this adjustment proved temporary and limited. Of the four classes of manufactured goods, low-tech products were more sensitive to the depreciation of the yuan than the other three, the prices of which resumed in 1995 the upward trends disrupted temporarily by the depreciation.

Terms of trade for both non-fuel primary goods and manufactured goods improved in 1997, with the former achieving the larger margin. This time the improvement in terms of trade came from the non-synchronized impacts of the Asian financial crisis on China's imports and exports, as import prices were more sensitive to the crisis and began dropping one year earlier than export prices, which still kept rising in 1997. As the Asian financial crisis continued, the negative effect on China's terms of trade became more and more apparent.



**Table 1**  
**Changes in China's terms of trade indices, 1993–2000**  
(Per cent)

<i>Category</i>	<i>Import price</i>	<i>Export price</i>	<i>Terms of trade</i>
All products	19	4.0	-13
Non-fuel primary products	6	4.0	-2
Manufactured goods	20	3.0	-14
Labour-/resource-intensive products	21	7.0	-11
Low-tech products	2	-0.5	-3
Medium-tech products	26	3.0	-18
High-tech products	17	-6.0	-20

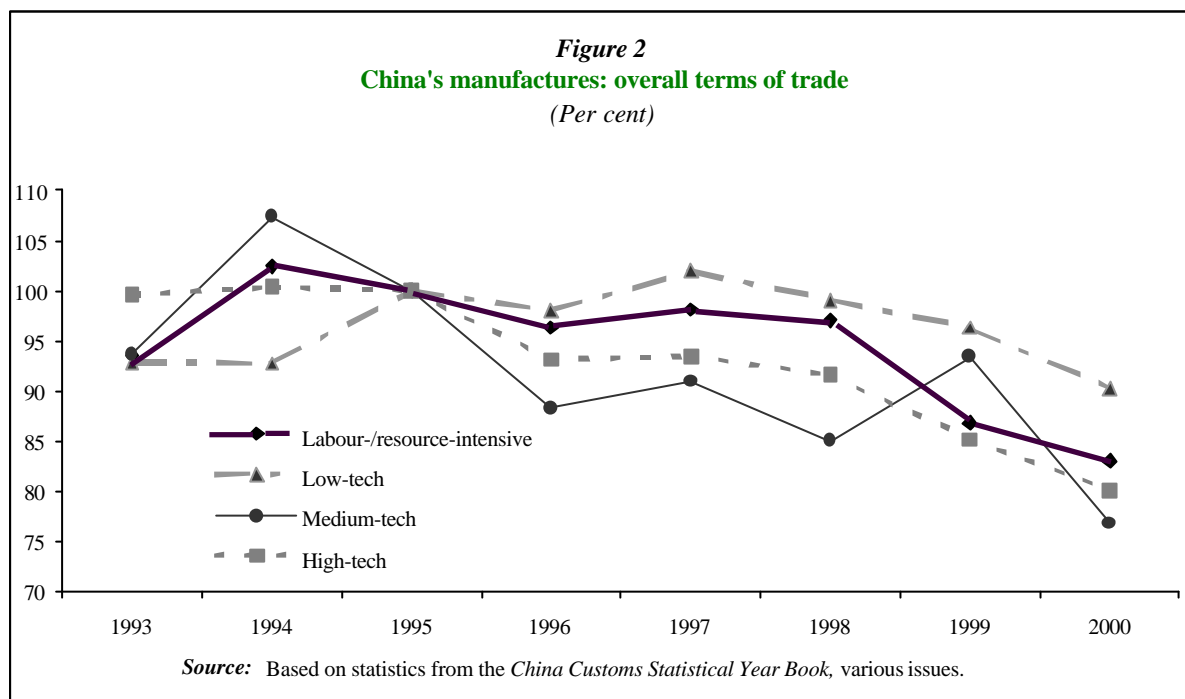
*Source:* Based on statistics from the *Chinese Customs Statistical Year Book*, various issues.

As regards classified manufactured goods, reductions of 11 per cent and 3 per cent were recorded for labour-/resource-intensive products and low-tech products respectively. While these reductions were not as great as those for China's manufactured goods in general, reductions in the indices for medium-tech products and high-tech products were fairly substantial – 18 per cent and 20 per cent, respectively. Deterioration in the terms of trade for manufactured goods can be attributed to the fact that import prices grew at a disproportionate rate relative to export prices. To be precise, import prices gained 20 per cent, while export prices gained just 3 per cent.

China is rich in labour resources and enjoys a comparative advantage in the export of labour-intensive products. During the period 1993–2000, both import and export prices rose for such products. The terms of trade, however, deteriorated because import prices saw 20 per cent growth while the increase for export prices was a mere 11 per cent. Terms of trade also deteriorated to varying



degrees for resource-intensive products such as wood, paper and non-metallic mineral products. What merits special mention is the index of terms of trade for wood and paper products, which has kept dropping since 1993, at an accumulated rate of 25 per cent. As of 2000, the index showed no sign of rebounding. In contrast, there have been rebounds, large or small, in the indices for all other products. Import prices have kept rising hand-in-hand with a continuous decline in export prices, which explains why the country's terms of trade have deteriorated in relation to these products.



Of the four categories of products, low-tech products featured the smallest decline in the terms of trade index. This can be attributed to the fact that changes in their import and export prices were limited. Import prices grew at only 2 per cent, while export prices dropped less than 1 per cent. Some products in this category did register major changes in export prices: export prices fell 3 per cent for fabricated metal products, 32 per cent for transport equipment (excluding motor vehicles and aircraft) and 31 per cent for ships/boats, even as export prices for sanitary/plumbing equipment saw large increases year after year. This factor minimized the decline in the export prices of products in the low-tech category.

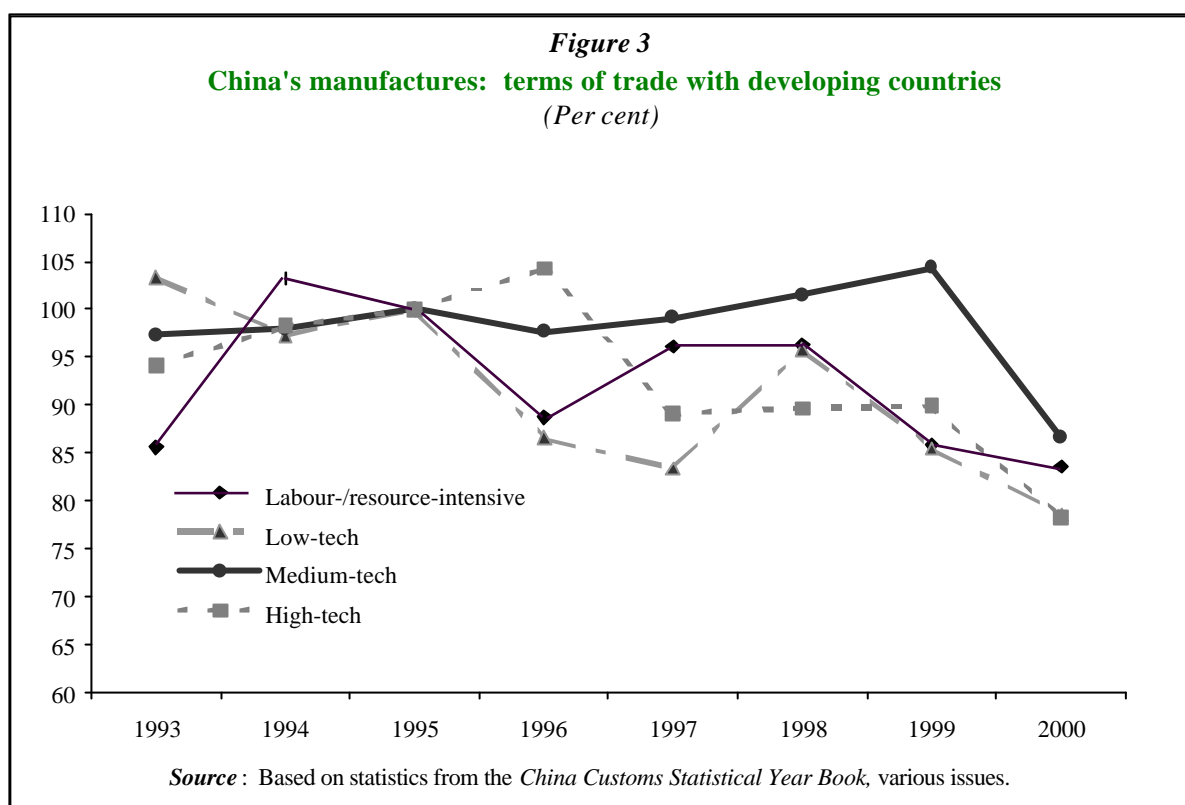
The general index dropped by 18 per cent for the terms of trade in relation to medium-tech products. All the products in the category suffered, to varying degrees, from deteriorated terms of trade, because the increases in import prices exceeded the increases in export prices by a large margin. As a matter of fact, import price indices grew for all four products in the category, the lowest rate being 8 per cent for non-electrical machinery and the highest 108 per cent for electrical machinery (other than semiconductors). As regards China's medium-tech products for exports, price indices dropped for three of four subcategories, the only exception being electrical machinery (not including semiconductors), for which the export price index grew by 28 per cent. That, however, was less than one-third of the rate of increase for the import price index for products of the same category.

During the 1993–2000 period, the import price index for high-tech products grew by 17 per cent, while the export price index dropped by 6 per cent. As a result, China’s terms of trade for high-tech products deteriorated markedly. Of the five products in the high-tech products category that China was able to export, four saw a decreased export price index. The export price index did increase for communications equipment/semiconductors, but the rate of increase was just 4 per cent. Of five imported high-tech products, two (aircraft and scientific instruments/watches/cameras) recorded a reduced price index, just like exports of the same products. Meanwhile, import prices rose for the other three products, the rate of increase exceeding 50 per cent for computer/office equipment and 60 per cent for communications equipment/semiconductors. China’s terms of trade for high-tech products deteriorated significantly as imported high-tech products exceeded exported high-tech products in quantity while import prices grew much faster than export prices.

## A. China’s terms of trade vis-à-vis developing and developed countries

### 1. Terms of trade vis-à-vis developing countries

During the 1993–2000 period, the index for China’s terms of trade vis-à-vis developing countries fell by 20 per cent (figure 3). The corresponding figure rose by 6 per cent for non-fuel primary products and dropped by 18 per cent for manufactured goods. Declines of varying degrees were recorded for trade term indices for all four categories of products – labour-/resource-intensive products, low-tech products, medium-tech products and high-tech products. Labour-/resource-intensive products had the smallest rate of decrease, 2 per cent, and low-tech products had the greatest – as much as 24 per cent.



The rate of increase for export prices of non-fuel primary products was 6 percentage points greater than for import prices, hence the improved terms of trade China was able to enjoy for such products. The terms of trade for manufactured goods, however, deteriorated, a development that can be attributed to increased import prices but is more likely the result of decreased export prices. The index of terms of trade for labour-/resource-intensive products did not drop much and, moreover, the terms of trade improved for leather products/textiles/apparel/footwear, a phenomenon attributable to the fact that the export prices of these products rose somewhat while the increase in their import prices was not very great. Nevertheless, the country's terms of trade for resources-based products deteriorated markedly, the reason being that export prices for non-metallic mineral products dropped by a large margin or showed only a slight increase (as in the case of wood and paper products) while import prices recorded a relatively big increase.

Of the four categories of products, the situation of trade in low-tech products with developing countries was the worst, mainly because the export prices of low-tech products dropped by 25 per cent while there was only a 2 per cent decrease in the prices of such products imported by China from developing countries (figure 3). Of the five low-tech products that China imported from developing countries, two – namely, iron/steel and fabricated metal products – featured decreased price indices of 3 per cent and 14 per cent, respectively. In comparison, export price indices dropped for three of the five products. Import prices rose 16 per cent and 15 per cent for imported transport equipment (not including aircraft and motor vehicles) and ships/boats, respectively, while export prices fell by 23 per cent and 49 per cent. For iron/steel, export prices dropped by 16 per cent and import prices by a mere 3 per cent. China's terms of trade for low-tech products deteriorated because of plummeting export prices for so many products and at rates as great as those cited above.

By and large, China's trade with developing countries in medium- and high-tech products followed the same pattern of import and export price movement, a pattern characterized by decreased export prices and increased import prices. As an inevitable result, China's terms of trade went from bad to worse.

The situation deteriorated markedly for China's trade with developing countries in two of the four medium-tech product categories, namely, electrical machinery (not including semiconductors) and road vehicles. Prices for China's imports of electrical machinery soared by 117 per cent; in contrast, virtually no increase was recorded for export prices. Import prices for road vehicles went up 54 per cent, while export prices dropped by 18 per cent.

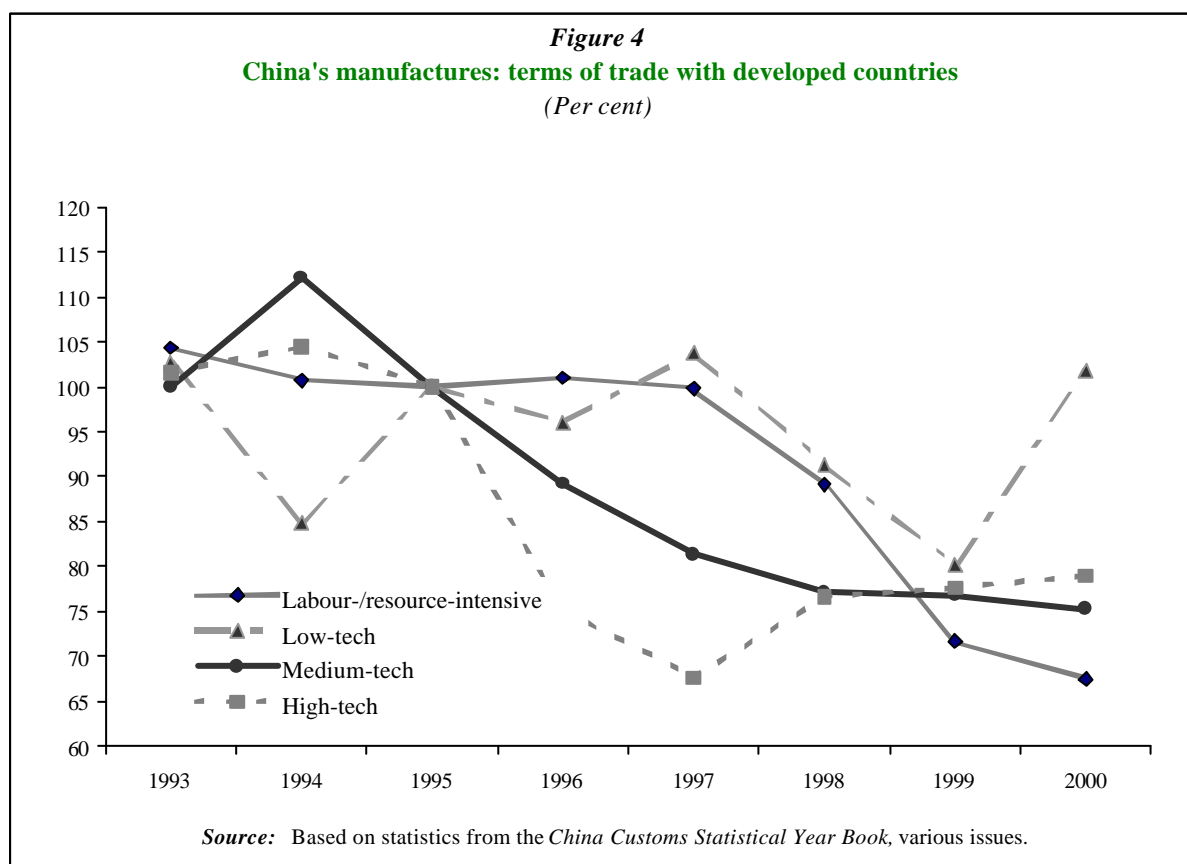
Prices rose for all of the four high-tech products that China imported from developing countries. Of the four high-tech products that China exported to developing countries, three saw reduced prices, hence the deterioration of the country's terms of trade in relation to the entire category of high-tech products. The price indices rose for both imports and exports of computers and office equipment, and the rate of increase for export prices was greater than that for import prices, which explains why China's terms of trade improved specifically for these products.

For China's trade with developing countries – in fact, with all countries – the overall situation worsened, as did the situation for China's trade in manufactured goods. In China's trade with developing countries, the export-import price ratio was in China's favour for six of the 18 products under study. These included leather/textiles/apparel/footwear, fabricated metal products, sanitary/plumbing equipment, rubber/plastic products, non-electrical machinery, and computers/office

equipment. In China's trade with all countries, however, the export-import price ratio was in China's favour for only two products of the 18 under study, namely, sanitary/plumbing equipment and scientific instruments and photographic equipment.

## 2. Terms of trade vis-à-vis developed countries

In 2000 the index for China's terms of trade vis-à-vis developed countries dropped by 23 per cent from the 1993 level (figure 4). The corresponding decline was 3 per cent for China's trade in manufactured goods and 28 per cent for China's trade in non-fuel primary products. An excessive increase in the import price index was responsible for this state of affairs. The price indices increased for both imports and exports of manufactured goods, but the increase for exports was a mere 3 per cent, in contrast to an increase of 34 per cent for imports. The price index for China's export of non-fuel primary products to developed countries and the index for imports of non-fuel primary products from developed countries, however, moved in opposite directions. The former dropped by 3 per cent, while the latter grew by 34 per cent. That explains why, in China's trade with developed countries, the situation was worse for non-fuel primary products than for manufactured goods.



A downward trend was observed in China's terms of trade with developed countries in labour-/resource-intensive, low-tech, medium-tech and high-tech products. Beginning in 1993, the index for China's terms of trade in labour-/resource-intensive products kept declining, at an accumulated rate of 37 per cent. The index dropped 28.6 per cent for China's terms of trade for leather products/textiles/apparel/footwear, 32 per cent for toys and sports articles, and as much as 54 per cent for resource-based products such as wood and paper products. The deterioration of China's terms of trade for these products can be attributed entirely to the skyrocketing prices of imports. During the 1993–2000 period, the import price index for labour-intensive products rose by 63 per cent, while the export price index grew by only 5 per cent. However, the price movement that caused the terms of trade to worsen differed from case to case. For example, the price index for China's export of leather/textiles/apparel/footwear to developed countries grew by a mere 9 per cent; in contrast, the price index for China's import of such products from developed countries shot up 52 per cent. Another case in point is the deterioration of China's terms of trade vis-à-vis developed countries for wood and paper products, which was attributed to movements of both import and export pricing that were definitely in China's disfavour. The prices of such products that China exported to developed countries dropped by 4 per cent, but the prices of imports from developed countries skyrocketed by 109 per cent. (In comparison, only a 15 per cent increase was registered for import prices of the same products from developing countries.)

China's terms of trade for low-tech products, taken as a whole, underwent limited changes. Nevertheless, a decline of more than 30 per cent was recorded for the terms of trade index for iron/steel, fabricated metal products and transport equipment (excluding motor vehicles and aircraft). The terms of trade index for low-tech products as a whole did not get much worse only because the terms of trade improved greatly for sanitary/plumbing equipment (an increase of 102 per cent) and ships/boats (an increase of 232 per cent). Plummeting export prices were responsible for the deteriorated terms of trade for iron and steel and transport equipment (excluding motor vehicles and aircraft). In contrast, the export price indices increased by large margins for sanitary/plumbing equipment (up 175 per cent) and ships/boats (up 203 per cent). This explains the marked improvement observed in China's terms of trade for these products. It is noteworthy that the export price index for ships/boats registered a big increase while the import price index plummeted. In comparison, China's terms of trade vis-à-vis developing countries for ships/boats went from bad to worse. During the 1993–2000 period, the prices of China's ships/boats for export to developing countries kept declining (down by 49 per cent), and the import prices for ships/boats from such countries rose continuously (up 15 per cent).

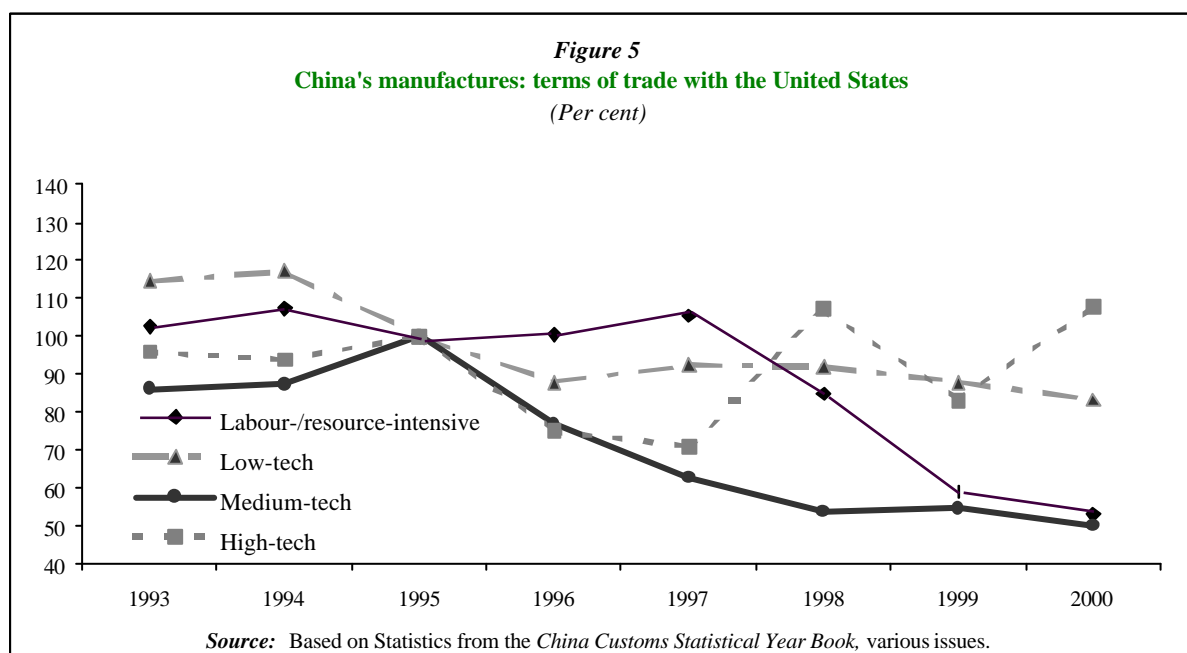
China's terms of trade vis-à-vis developed countries also kept deteriorating for medium- and high-tech products. Since 1994, the index for terms of trade has dropped by 33 per cent for medium-tech products and 24 per cent for high-tech products. The indices of the terms of trade plummeted for all four medium-tech products. The terms of trade index for rubber/plastic products suffered the greatest fall, 68 per cent, followed by that for electrical machinery, which dropped by 38 per cent. Corresponding falls were 28 per cent for non-electrical machinery and 10 per cent for motor vehicles. What merits special mention is that the import prices grew for all these products. (The import price index, as a matter of fact, more than doubled for rubber and plastic products and electrical machinery.) A 44 per cent increase was registered in the import price index for medium-tech products, while the corresponding export price index rose by a marginal 8 per cent.

The terms of trade for high-tech products deteriorated to varying degrees. A fairly great decline occurred in the terms of trade indices for computers/office equipment (46 per cent) and communications equipment/semiconductors (26 per cent). Meanwhile, the terms of trade improved significantly for aircraft and scientific instruments/watches/photographic equipment, with rises of 114 per cent and 76 per cent, respectively. Soaring export prices (registered at 92 per cent) were responsible for improvements in the terms of trade for aircraft. As regards scientific instruments/watches/ photographic equipment, the decline of import prices (57 per cent) far exceeded the decline of export prices (24 per cent), leading to deterioration in terms of trade.

## B. Terms of trade between China and its major trade partners

### 1. Changes in China's terms of trade vis-à-vis the United States

The general index of China's terms of trade vis-à-vis the United States, including the terms of trade for manufactured and non-manufactured goods, dropped by 23 per cent during the 1993–2000 period (figure 5). Virtually no change was observed in the terms of trade for non-fuel primary products, but the index for manufactured goods dropped by 24 per cent.



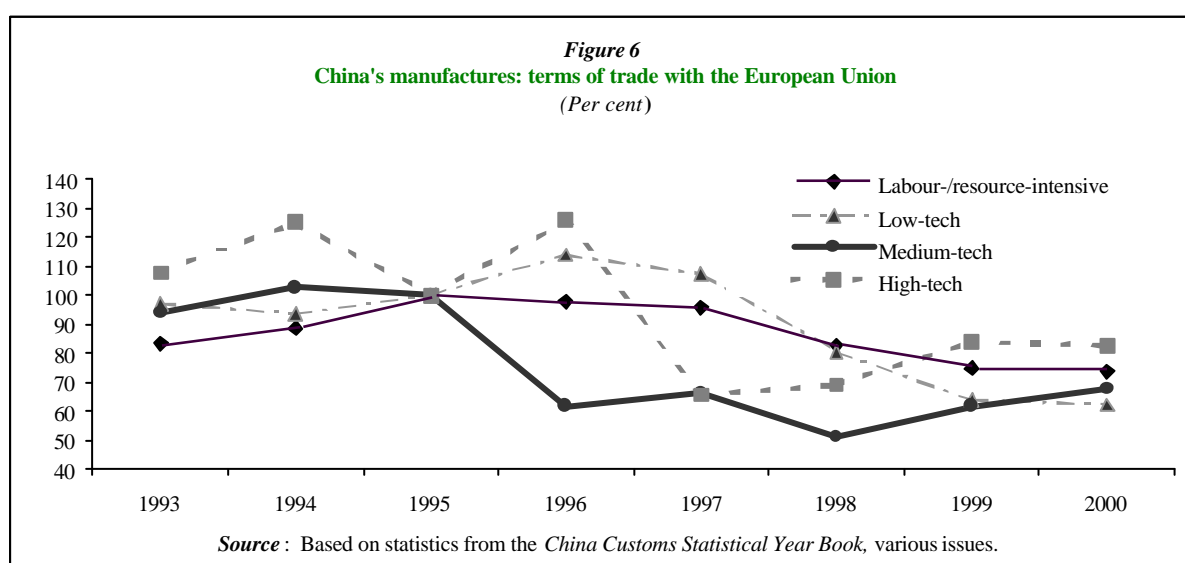
Changes differed from one category of products to another. Thus, terms deteriorated for labour-/resource-intensive products, low-tech products, and medium-tech products. The terms of trade for labour-/resource-intensive products took a turn for the worse in 1998, with the outbreak of the Asian financial crisis. Terms began deteriorating in 1995 for low-tech and medium-tech products, one year before deterioration of trade terms was observed for labour-/resource-intensive products. A decline of more than 40 per cent was recorded for terms of trade in relation to labour-/resource-intensive and medium-tech products, and the fall was 27 per cent for low-tech products.

Dramatically rising import prices were blamed for the deterioration in terms of trade for labour-/resource-intensive and low-tech products: these prices increased 94 per cent for the former and 72 per cent for the latter. It is true that export prices for the same products increased; nevertheless, the rate of increase for export prices fell far short of the rate of increase for import prices. Deteriorated terms of trade for medium-tech products were attributed to a rise in the import price index that worked together with a fall in the export price index.

Despite some fluctuations, an upward swing was observed in China's terms of trade vis-à-vis the United States with regard to high-tech products, with a growth of 13 per cent recorded for the 1993–2000 period. Improvement in China's terms of trade for high-tech products can largely be attributed to a rise in export prices – 15 per cent between 1993 and 2000 – compared with a rise of 2 per cent in import prices. Exports of communications equipment/semiconductors, aircraft, and scientific instruments, watches and photographic equipment were the chief factor responsible for improvement in China's terms of trade for high-tech products vis-à-vis the United States. The export price index rose by 50 per cent for communications equipment/semiconductors and by 133 per cent for aircraft, far greater increases than those in the import price index, which was more than 20 per cent for both products. For scientific instruments/watches/photographic equipment, import prices dropped by a much larger margin than did export prices, a state of affairs that was certainly in China's favour. While the general terms of trade improved for high-tech products, the terms of trade became worse for the subcategories of chemical products/pharmaceuticals and computers/office equipment. Import prices for these two products rose, while no product was spared when export prices dropped.

## 2. Changes in China's terms of trade vis-à-vis the European Union

The general index of terms of trade vis-à-vis the European Union, including the terms of trade for primary and manufactured goods, dropped by 28 per cent during the 1993–2000 period (figure 6). Responsible for this state of affairs was a drop in the index for terms of trade for manufactured goods – 27 per cent on average – combined with a plummeting index for terms of trade for primary products (36 per cent).



The terms of trade indices vis-à-vis the European Union dropped for all four categories of products. For labour-/resource-intensive products and low-tech products, the decline was smaller than vis-à-vis the United States, but the situation was much worse for medium-tech and high-tech products. Back in 1996, the general index of terms of trade vis-à-vis the European Union began dropping, and so did the indices for labour-/resource-intensive and medium-tech products. In 1997, the index began dropping for low- and high-tech products. The prices for China's exports of labour-/resource-intensive and medium-tech products were rising, but the prices for imports from the European Union kept rising much faster and, consequently, the relevant terms of trade worsened for China. The price movement of China's exports of low- and high-tech products to the European Union was not in China's favour, and neither was the price movement of China's imports of such products from the European Union. The export index took a downward turn and the import index an upward turn, hence the deterioration of the relevant terms of trade for China.

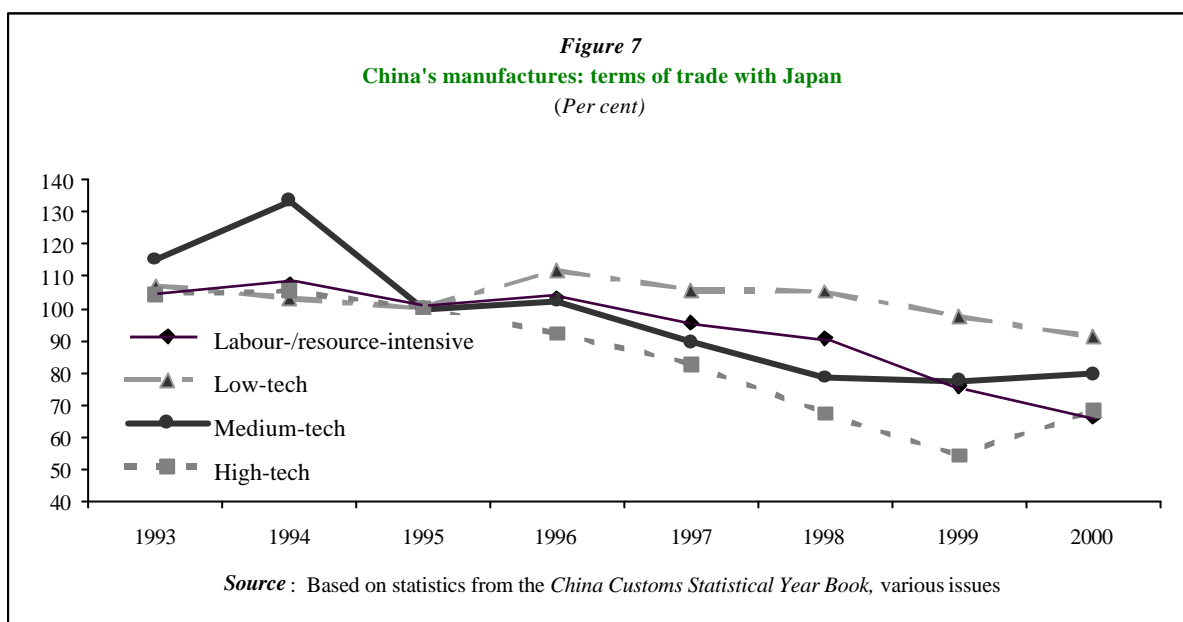
Fortunately for China, however, trade terms improved greatly for some items in the categories of labour-/resource-intensive, medium-tech and high-tech products – for example, non-metallic mineral products, road vehicles, and scientific instruments/watches/photographic equipment. Factors responsible for these improvements varied from case to case. Also, the import and export prices for non-fabricated metal products dropped, and the relevant terms of trade were able to improve because import prices dropped at a much greater rate than export prices.

China's terms of trade vis-à-vis the European Union for road vehicles improved significantly between 1993 and 2000, with export prices increasing by 86 per cent, in contrast to a drop of 37 per cent in import prices. This took place when Europe was investing heavily in China's motor vehicle industry. Rising prices for exports and declining prices for imports were responsible for the improved terms of trade China was able to enjoy in connection with scientific instruments/watches/photographic equipment. Of the two factors, lower import prices were more important, unlike the improvement in trade terms for motor vehicles that resulted from increases in export prices.

### *3. Changes in China's terms of trade vis-à-vis Japan*

The index of China's terms of trade vis-à-vis Japan dropped by 26 per cent during the 1993–2000 period (figure 7). The corresponding index rose 4 per cent for non-fuel primary products and fell 28 per cent for manufactured goods. Indices for manufactured goods in four categories slid – more than 30 per cent for labour-/resource-intensive products, medium-tech products and high-tech products, and 15 per cent for low-tech products. China's terms of trade vis-à-vis Japan for manufactured goods began deteriorating in 1995. The situation went from bad to worse after the outbreak of the Asian financial crisis, but by 2000 it had shown some improvement. The indices of terms of trade for labour-/resource-intensive and low-tech products began dropping in 1997, and by 2000, decreases of 36 per cent and 19 per cent, respectively, had been recorded for the two categories. Up to now, there has been no sign of a rebound. The indices for medium- and high-tech products began dropping in 1995, eventually reaching 42 per cent and 49 per cent, respectively, but they took a slight turn for the better in 2000. China's terms of trade vis-à-vis Japan, taken as a whole, tended to deteriorate, and the same was true of China's terms of trade for each category of products. Nevertheless, there were a few exceptions: The index rose 25 per cent for fabricated metal products, 113 per cent for ships/boats, and 36 per cent for scientific instruments/watches/ photographic equipment.



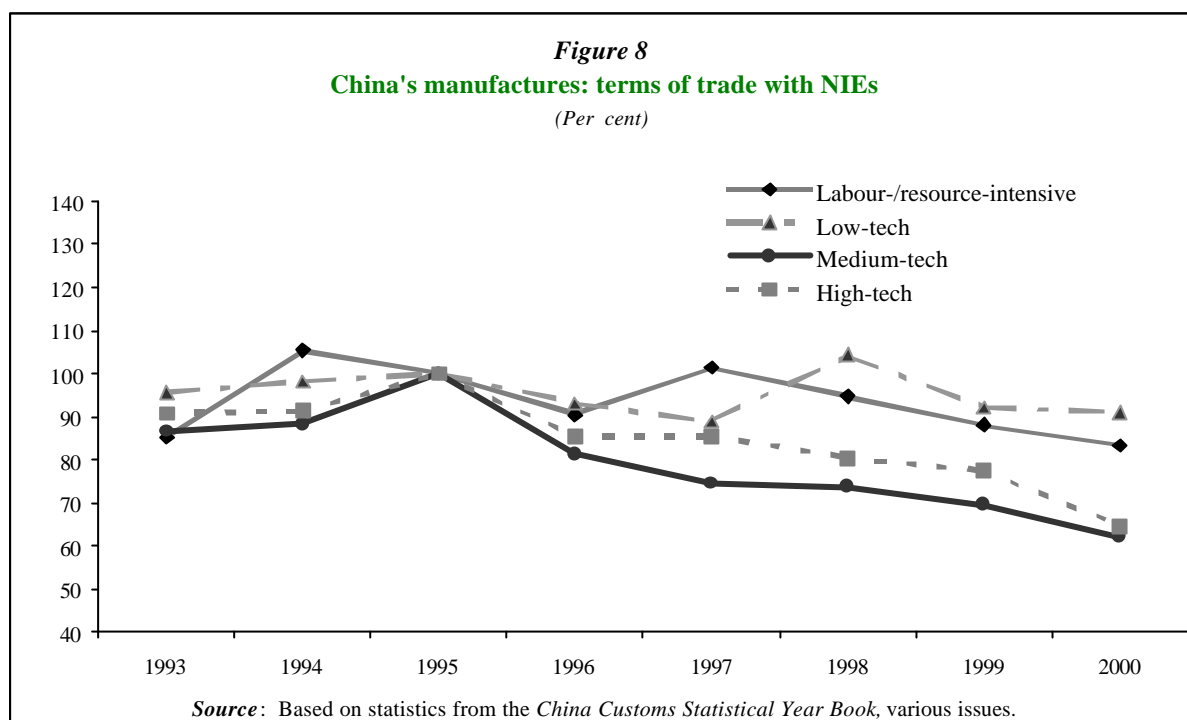


Deterioration of China's terms of trade vis-à-vis Japan was attributed to a large increase in the prices of manufactured goods that China imported from Japan – a situation similar to those involving other developed countries. During the period 1993–2000, China's import prices for manufactures rose by 41 per cent on average, while its export prices rose by only 2 per cent. An analysis of the statistics shows that the price index went up 74 per cent for China's imports of labour-intensive products and 63 per cent for medium-tech products. The increase in the export price index, however, was only 10 per cent and 12 per cent for the two categories, respectively, which inevitably caused China's terms of trade to deteriorate. Meanwhile, the price movement featured an upward turn for China's imports of low- and high-tech products from Japan and a downward turn for China's exports of the same products to Japan, a reason why China's terms of trade deteriorated further in connection with products in these two categories.

#### 4. Changes in China's terms of trade vis-à-vis the NIEs

The general index for China's terms of trade vis-à-vis the newly industrializing economies (NIEs) dropped by 17 per cent during the 1993–2000 period, and the corresponding index for manufactured goods went down 20 per cent, both figures being smaller than China's indices for developed countries. Deterioration of China's terms of trade vis-à-vis the NIEs resulted from the fact that its import prices grew at a greater rate than its export prices, the same as for China's trade with developed countries. During the period in question, import prices went up by 25 per cent, while export prices showed no increase at all.

China's terms of trade vis-à-vis the NIEs went from bad to worse for products of all categories (figure 8). Moreover, the degree of deterioration in each category is closely related to the technological and capital intensity of the products involved, with the terms of trade of the products of higher technological and capital intensity dropping more. The indices of terms of trade for labour-/resource-intensive and low-tech products dropped just a little, by 2 per cent and 5 per cent, respectively. In contrast, a decline of close to 30 per cent occurred in the terms of trade for medium- and high-tech products.

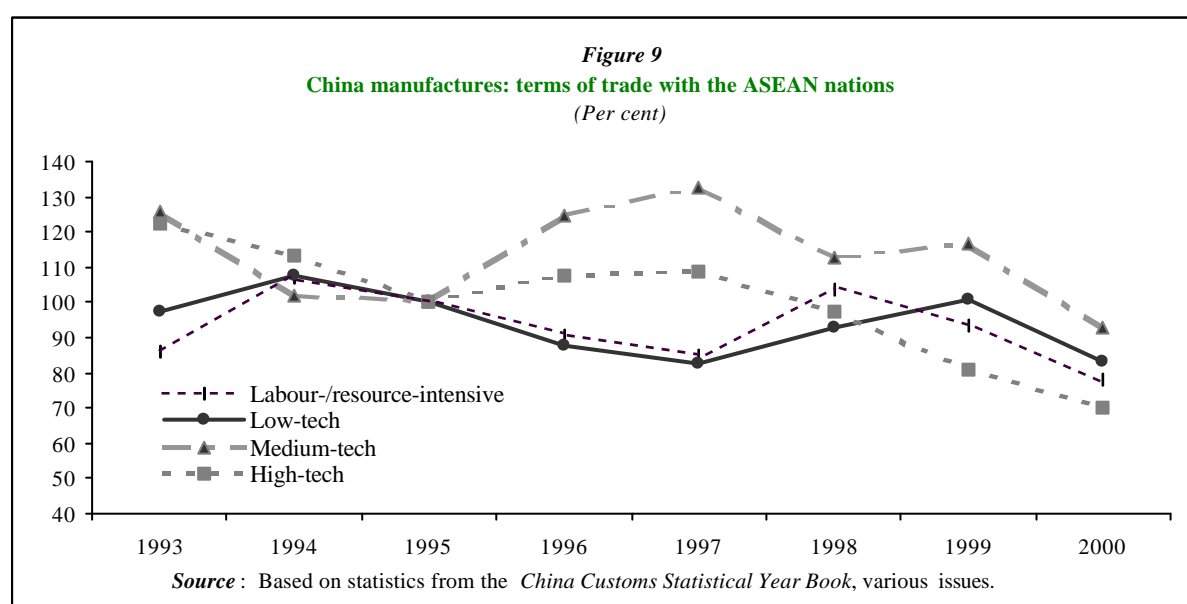


Factors that caused China's terms of trade to deteriorate differed from case to case. As regards labour-/resource-intensive and medium-tech products, prices for China's imports from and exports to the NIEs did rise, but import prices increased much faster than export prices. What merits special mention is that the rate of increase was 40 per cent faster for the import prices of medium-tech products than for the export prices. In the case of low-tech products, import and export prices both dropped, but the drop for exports was much greater than that for imports. The terms of trade for high-tech products were particularly unfavourable to China. Prices for China's exports of such products to the NIEs kept declining while the prices for China's imports from the NIEs shot up by at least 30 per cent, which explains why China's worst terms of trade vis-à-vis the NIEs were in connection with high-tech products.

Despite the deterioration in general terms of trade vis-à-vis the NIEs as well as in connection with products under each category, the import/export price ratio of some products was actually in China's favour. China's terms of trade vis-à-vis the NIEs in relation to leather products/textiles/apparel/footwear, taken as whole, did not deteriorate, though they were not as good as they had been before the outbreak of the Asian financial crisis in 1997. The import and export prices for non-electrical machinery both dropped, but the rate of decline for import prices was 20 percentage points greater than it was for export prices. Import and export prices for sanitary/plumbing equipment both registered increases, but the rate of increase was 16 percentage points greater for export prices than for import prices. Moreover, the prices for China's exports of fabricated metal products to the NIEs grew by 33 per cent, while import prices dropped by 14 per cent. Price changes such as these helped improve China's terms of trade vis-à-vis the NIEs.

### 5. Changes in China's terms of trade vis-à-vis the ASEAN nations

China's terms of trade vis-à-vis the ASEAN (Association of South-East Asian Nations) nations deteriorated on the whole, with the relevant index dropping by 8 per cent between 1993 and 2000 (figure 9). But changes in terms of trade were different for non-fuel primary products and manufactured goods. The situation for trade in non-fuel primary products improved markedly, as shown by the fact that the index of terms of trade rose by 34 per cent. The corresponding index for manufactured goods dropped by 24 per cent during the same period. The sharp decrease that had been recorded for several consecutive years in prices for China's imports was responsible for the improvement in China's terms of trade for non-fuel primary products. Increased import prices and decreased export prices were both blamed for deteriorated terms of trade in connection with manufactured goods. However, it is difficult to pinpoint the chief culprit, as import prices grew by 14 per cent, while export prices dropped by 13 per cent.



China's terms of trade vis-à-vis the ASEAN nations went from bad to worse for manufactures of all categories. Moreover, the degree of deterioration depended on the technological and capital intensity for products of each category. The indices of terms of trade for labour-/resource-intensive and low-tech products dropped just slightly – by 9 per cent and 14 per cent, respectively. In contrast, there was a 26 per cent decline in terms of trade for medium-tech products and a 43 per cent decline for high-tech products. The prices increased for both import and export by China of labour-/resource-intensive products, but import prices increased much more than export prices, hence deterioration of the relevant terms of trade. Nevertheless, different trends were identified for trade in labour-/resource-intensive products. Prices for China's exports to the ASEAN nations of leather products/textiles/apparel/footwear went up 11 per cent while import prices rose by just 5 per cent, hence the improved terms of trade that China was able to achieve in connection with these products. In comparison, the prices for China's exports of wood, paper and non-metallic mineral products suffered a decline, while import prices rose by a fairly big margin, a situation that caused China's terms of trade for these two products to deteriorate.

Prices dropped for both imports and exports of low-tech products, but the drop was greater for export prices, hence the deterioration of China's terms of trade for such products. Of the four low-tech products, the terms of trade improved to a fairly large extent for sanitary/plumbing equipment. In

many ways, the situation for China's trade with the ASEAN nations in medium-tech products was the same as that for high-tech products. Fairly large decreases were registered in the indices of terms of trade for products of both categories. For both categories, import prices were up and export prices down. However, the rate of decrease for China's export prices for medium-tech products to the ASEAN nations was much higher than the rate of increase for the import prices of the same products from the ASEAN nations. To put it another way, it is the export price cut that was chiefly responsible for the deterioration of China's terms of trade in medium-tech products. Meanwhile, the prices of high-tech exports from the ASEAN nations to China increased much faster than did the prices of China's exports of such products to these nations. In other words, big increases in import prices were responsible for the deterioration of China's terms of trade for high-tech products.

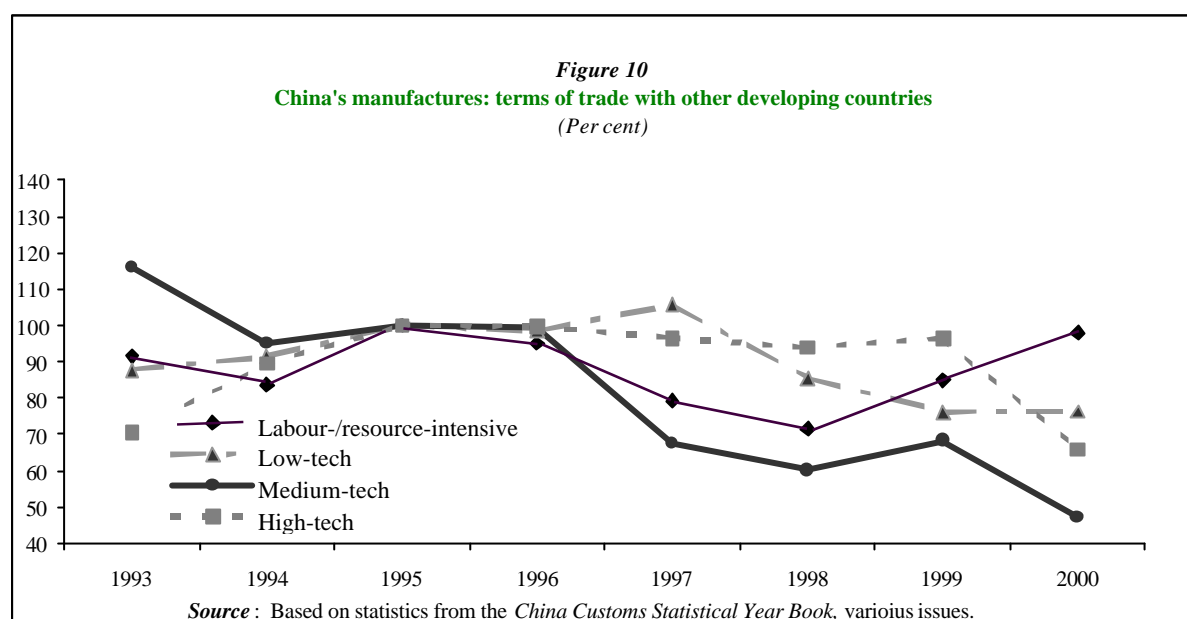
### *6. Changes in China's terms of trade vis-à-vis other developing countries*

The general index of China's terms of trade vis-à-vis other developing countries dropped by just 3 per cent, less than the index for countries of any other type. Responsible for this small drop was an increase of 15 per cent in the index for China's terms of trade vis-à-vis these countries for non-fuel primary products. The index of China's terms of trade for manufactured goods in relation to these countries declined by 21 per cent, a statistic similar to those in relation to others of China's trade partners. Improvement in China's terms of trade for non-fuel primary products vis-à-vis other developing countries resulted from increased export prices, while deterioration of trade terms for manufactured goods was attributable to unfavourable changes in both import and export prices. Between 1993 and 2000, import prices rose by 12 per cent while export prices dropped by the same amount.

Following is an analysis of China's terms of trade indexes for products of each category vis-à-vis other developing countries (figure 10). Such terms improved for labour-/resource-intensive products. Import and export prices both dropped for such products, but the decrease was smaller in export prices than in import prices. Meanwhile, China's terms of trade deteriorated vis-à-vis other developing countries for products of the low-, medium- and high-tech categories, as import prices for all these products shot up while export prices plummeted without exception. The skyrocketing prices of imports were responsible for the deterioration of China's terms of trade with regard to low- and medium-tech products, while the deterioration as regards high-tech products was attributable mainly to plunging export prices. Of the products in the 18 individual groups under study, China's terms of trade improved for three, namely, leather/textiles/apparel/footwear, non-metallic mineral products, and communications equipment/semiconductors. This improvement can be attributed to the fact that export prices grew while import prices declined. Thanks to better terms of trade in leather/textiles/apparel/footwear, China was able to improve its terms of trade for the entire category of labour-/resource-intensive products.

### *C. Summary*

Between 1993 and 2000, China experienced a deterioration in terms of trade for its manufactures. However, due to the depreciation of the yuan as a result of significant reform of China's foreign exchange regime in 1994 and the non-synchronized impacts of the Asian financial crisis on China's imports and exports at the early stage of the crisis, which made China's import prices decline in 1997 while export prices kept rising, 1994 and 1997 witnessed some increases in the indices of terms of trade.



**Table 2**  
**Changes in trade terms vis-à-vis China's major trade partners, 1993–2000**  
(Per cent)

<i>Category</i>	<i>United States</i>	<i>EU</i>	<i>Japan</i>	<i>NIEs</i>	<i>ASEAN</i>	<i>Other developing countries</i>
All products	-23	-28	-26	-17	-8	-3
Non-fuel primary products	0	-36	4	5	34	15
Manufactured goods	-24	-27	-28	-20	-24	-21
Labour/resources-intensive products	-48	-12	-37	-2	-9	7
Low-tech products	-27	-36	-15	-5	-14	-13
Medium-tech products	-42	-28	-31	-28	-26	-59
High-tech products	13	-23	-35	-29	-43	-7

*Source*: Based on statistics from the *Chinese Customs Statistical Year Book*.

The terms of trade for the four classified products, namely labour-/resource-intensive products, low-tech products, medium-tech products and high-tech products, moved downward, with medium- and high-tech products showing large declines.

The terms of trade between China and developed countries for manufactures as well as for four classified manufactures deteriorated in the period 1993–2000; the same was true for China's trade with developing countries. But China experienced a much worse deterioration of these terms vis-à-vis developed countries than vis-à-vis developing countries, with the exception of low-tech products.

The period 1993–2000 saw China's indices of terms of trade drop across the board vis-à-vis major trading partners. But China enjoyed some improvements in terms of trade for high-tech products vis-à-vis the United States and labour-/resource-intensive products vis-à-vis other developing countries. The development of terms of trade between China and developing-country trade partners, including NIEs, ASEAN and other developing economies, is characterized by movements highly synchronized according to the intensiveness of technology and capital required for the product in

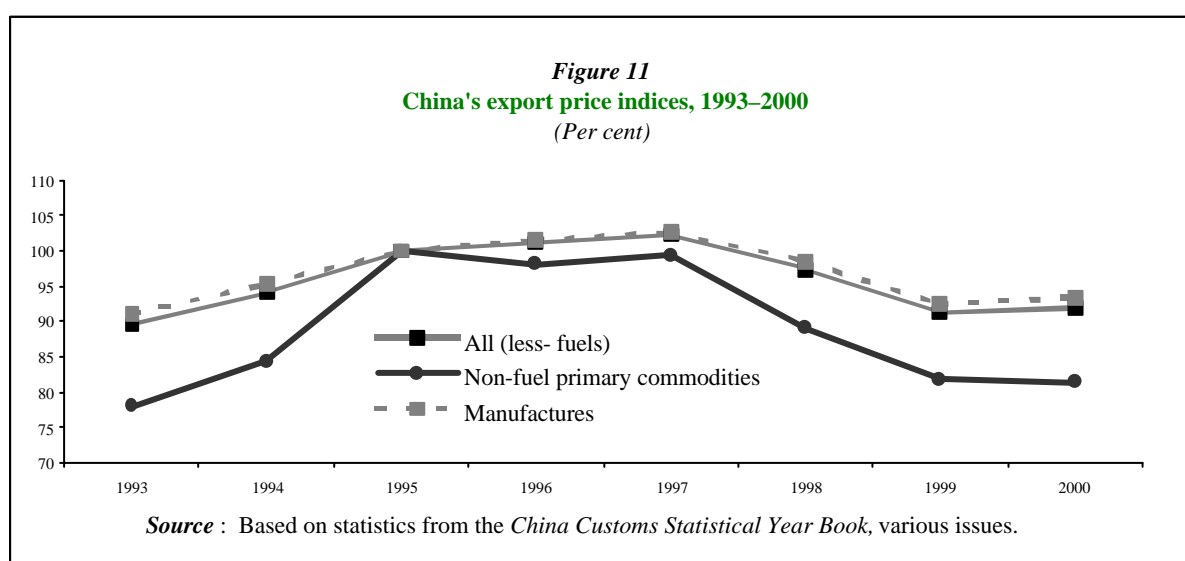
question; the higher a product's technology/capital content, the worse the terms of trade for the product. As regards China's terms of trade for classified products vis-à-vis developed trade partners, labour-/resource-intensive products and low-tech products were highlighted instead of high- and medium-tech products. As a matter of fact, the most interesting finding from this study is that China suffered the largest degree of deterioration of terms of trade for labour-/resource-intensive products vis-à-vis the United States and Japan, and for low-tech products vis-à-vis the European Union.

## II. POSSIBLE EXPLANATIONS FOR THE CHANGES IN TERMS OF TRADE

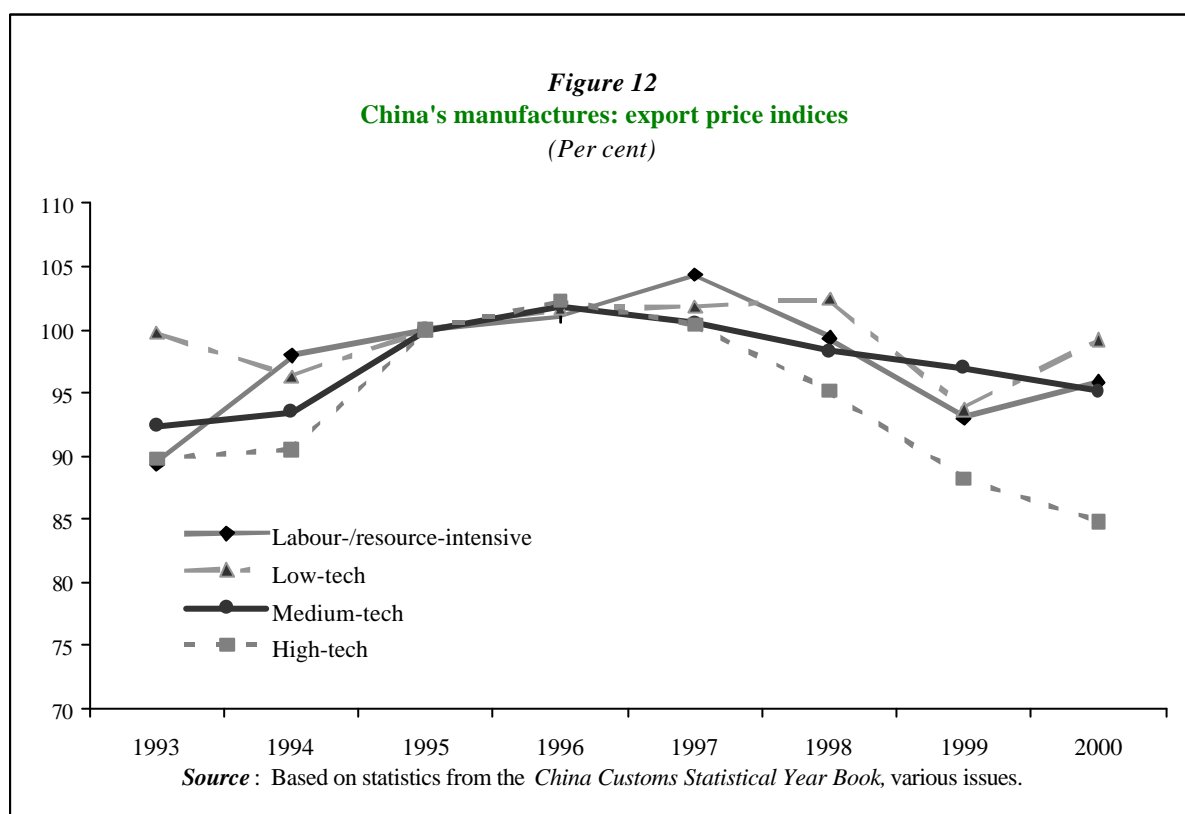
Changes in export and import prices contribute directly to changes in terms of trade (defined as the relationship between the price of exported goods and that of imported goods). This chapter attempts to identify the main factors influencing the changes in terms of trade discussed in Chapter I. It does this by comparing the development of export and import prices between 1993 and 2000.

### A. Trends in China's export price index, 1993–2000

From 1993 through 2000, China's export price index rose 4 per cent, the price index of non-fuel primary commodities rose the same amount and the export price index for manufactures rose 3 per cent. Further analysis, however, shows that over this period the export price index exhibited two types of movement. Between 1993 and 1997 the export price index rose continually: the general export price index (including the price index for primary commodities with fuel involved and the index for manufactures) rose 14 per cent, and the export price index for manufactures rose 12.7 per cent. After 1997, export prices fell in two consecutive years, with the general index dropping by 13 per cent and the manufactures index dropping by 11 per cent. Export prices of non-fuel primary commodities started to fall in 1996, two years earlier than did the export prices of manufactures, and by 2000 they had dropped 18.5 per cent. When the export price index began to rise again in 2000, it enabled the general export price index to move upwards as well (figure 11).



Of the four export price indices included under manufactures, the export price indices of low-tech and high-tech manufactures decreased, while the other two indices – for labour-/resource-intensive manufactures and medium-tech manufactures – increased slightly. Improvement in the export price index of labour-/resource-intensive manufactures was caused entirely by increases in the prices of leather/textiles/apparel/footwear. Export prices for the other three categories of manufactures in the same group (toys/sports equipment, wood/paper products and non-metallic mineral products) declined to various degrees. Similarly, improvements in the export price index of medium-tech manufactures were caused entirely by rising prices for electrical machinery other than semiconductors. Export prices for the other three categories of manufactures in the same group, including rubber/plastic products, non-electrical machinery and road motor vehicles, all declined (figure 12).

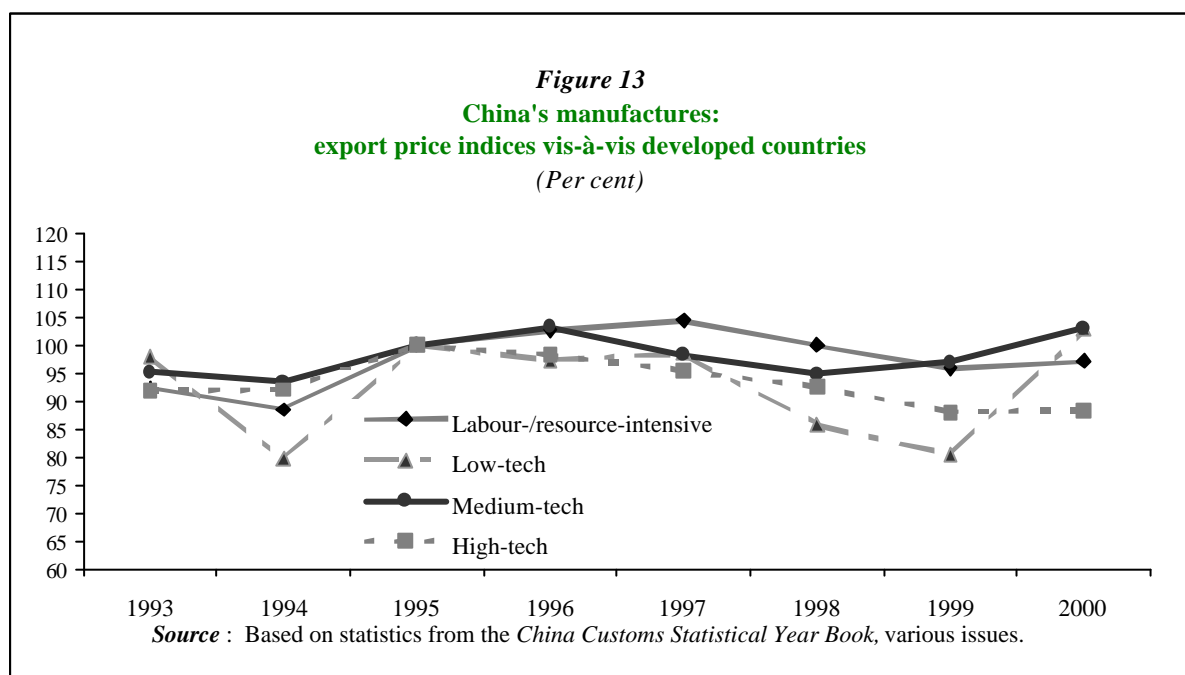


Although the export price index of low-tech manufactures dropped by only 0.5 per cent, some products in this category experienced big price declines; for example, transport equipment (other than road motor vehicles and aircraft) and ships/boats showed declines of 32 per cent and 31 per cent respectively. In the same group, the export price index of sanitary/plumbing equipment rose sharply, thus mitigating the fall in export prices of low-tech manufactures.

Of all four categories of manufactures, the export price index of high-tech manufactures declined the most. Apart from a 4 per cent increase in the prices of communications equipment/semiconductors, prices all showed a downward trend. Aircraft and scientific instrument/watches/photographic equipment had respective drops of 49 per cent and 20 per cent, and the prices of chemical and pharmaceutical products dropped by 10 per cent.

### 1. Price indices of exports to developing and developed countries

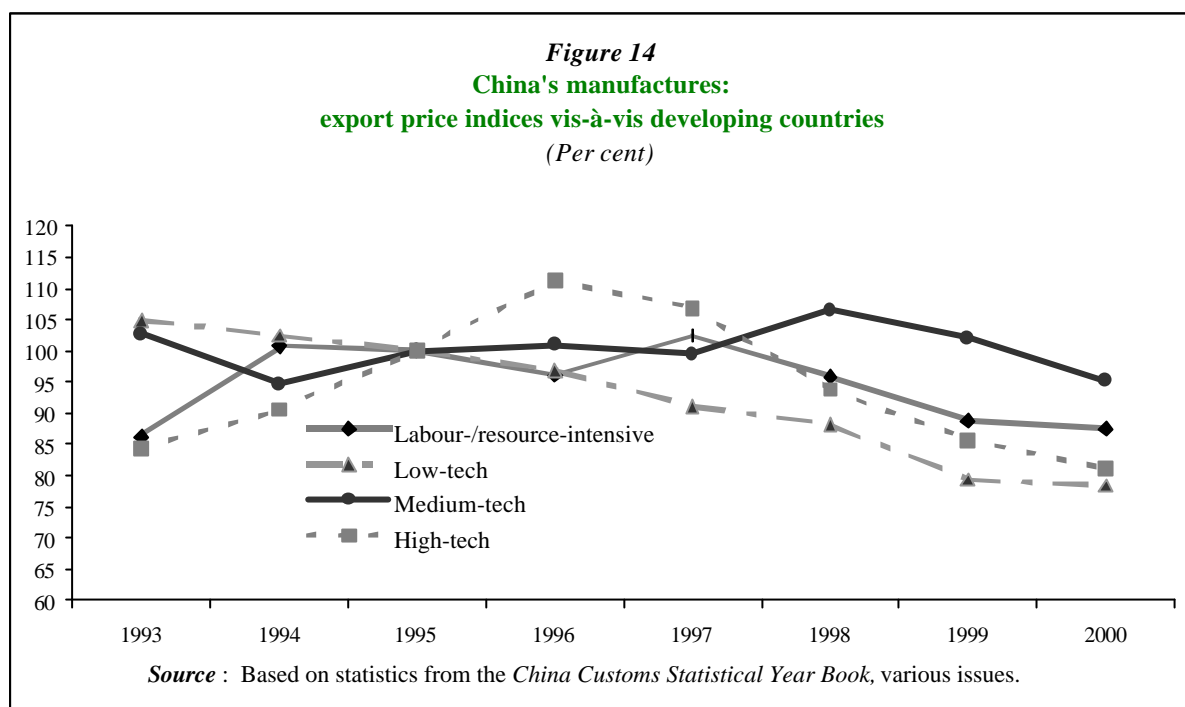
Changes in the price index of China's exports to developing countries were quite different from changes in the general export price index (which includes the export price indices of China's primary commodities and of the manufactures exported to all countries). The index of exports to developing countries dropped by 11 per cent between 1993 and 2000 while the general export price index rose by 4 per cent. During this period, the prices of China's non-fuel primary commodity exports to developing countries increased by 11 per cent, a substantial increase compared with the general export prices of non-fuel primary commodities. The general export price index of China's manufactures exported to developing countries showed a drop of 14 per cent (figure 13).



The price index of China's exports to developed countries moved in the same direction as the general export price index, and with the same speed. The aforesaid index climbed a bit during 1993–2000, as did the export prices of manufactures. On the other hand, the price index of non-fuel primary commodity exports to developed countries and the general export price index of non-fuel primary commodities showed declines (figure 14).

Amongst the classified export price indices of China's manufactures exported to developing countries, while the export price index of labour-/resource-intensive manufactures rose 2 per cent, the export price indices of the other three categories of manufactures – low-tech manufactures, medium-tech manufactures and high-tech manufactures – dropped 25 per cent, 7 per cent and 4 per cent respectively. In fact, among labour-/resource-intensive manufactures, only the export prices of leather/textiles/apparel/footwear and wood/paper products rose. The export price indices of the other two product categories (toys/sports equipment and non-metallic mineral products) declined. The price index of China's labour-/resource-intensive manufactures exported to developed countries was 3 per cent higher by comparison. Of the four product-classified export price indices, three were better than those of the exports to developing countries.





The largest differences between China's export prices and those of developed and developing countries were in the indices for low-tech manufactures. Beginning in 1993, the indices of China's exports of such products to developing countries continued to fall, showing a drop of 25 per cent, while the price index of exports to developed countries dropped by only 5 per cent.

The price indices of iron/steel, transport equipment other than motor vehicles and aircraft exported to both developed and developing countries declined. The prices of exports to developed countries dropped much more. The price indices of the other two categories of manufactures exported to both developed and developing countries moved in reverse directions. The prices of China's ships/boats exported to developed countries kept rising on the whole, with a big margin. However, the prices of China's ships/boats exported to developing countries dropped continuously between 1994 and 2000, with a cumulative decrease of 49 per cent. Conversely, for fabricated metal products, the prices of exports to developed countries fell while the prices of exports to developing countries picked up.

As regards medium-tech manufactures, the movement of China's export price index once again reflected different features for developed and developing countries. As a whole, the prices of such products exported by China to developed countries rose by 8 per cent, while prices of exports to developing countries dropped 7 per cent. To look at each category separately: The prices of rubber/plastic products rose for exports to developing countries but fell for exports to developed countries. Meanwhile, the prices of motor vehicles rose for exports to developed countries and fell for exports to developing countries. In the category of electrical machinery other than semiconductors, the prices of exports by China to developed countries rose by 38 per cent, while prices of similar products exported to developing countries rose only 1 per cent. However, the fall in prices of non-electrical equipment exported to developed countries was steeper than the fall in prices of similar exports to developing countries.

From 1993 to 2000, the price indices of high-tech manufactures exported by China to both developing and developed countries all declined to the same degree. Even so, the two types of indices moved differently. The price index of exports to developed countries began to show a downward trend in 1996, and the index of exports to developing countries began to fall in 1997. However, the prices of exports to developing countries dropped a hefty 27 per cent, while the prices of exports to developed countries fell only 11.6 per cent.

In terms of the export prices of classified products, the prices of exports to developing countries fell more than those of exports to developed countries. An obvious exception was that the prices of computers/office equipment exported by China to developing countries rose significantly, more than 30 per cent, while the prices of similar products exported to developed countries dropped 13 per cent.

## 2. Price indices of exports to major trade partners

China has both developed countries and developing countries as major trade partners. This section of the paper mainly examines the changes in prices of China's exports to the United States, the European Union, Japan, the NIEs and the four ASEAN countries. (The above-mentioned countries and areas account for more than 80 per cent of China's total exports.) This section will also compare the changes in prices of exports to other developing countries.

Comparisons between the price indices of China's exports to major trade partners during 1993–2000 (table 3) show that China's export price index vis-à-vis the United States showed fairly good growth. The general export price index increased faster than did the prices of exports to other countries and areas, and the prices of both non-fuel primary commodities and manufactures went up, though prices for manufactures rose less than prices for non-fuel primary commodities. In terms of the four classified indices of manufactures, only the prices of medium-tech manufactures went down, while the export prices of low-tech manufactures and high-tech manufactures all increased. The export prices of labour-intensive manufactures to the United States hardly rose, while most of the export prices to other countries and areas moved up. But the prices of low-tech and high-tech products exported to the United States did show a stronger upward trend. The prices of low-tech products exported by China to the United States benefited greatly from the substantial increases in prices of sanitary/plumbing equipment exported by China to the United States, and from increases in the prices of iron/steel exported to the United States. The rise in prices of high-tech manufacture exports United States came from the higher prices of aircraft (including parts) and communications.

**Table 3**  
**Changes in China's export price indices vis-à-vis major trade partners, 1993–2000**  
(Per cent)

Category	United States	EU	Japan	NIEs	ASEAN	Others
All	5	1	2	3	-11	2
Non-fuel primary commodities	38	5	-5	15	1	14
Manufactures	2	1	2	0	-13	-12
Labour-intensive manufactures	0.1	8	10	3	6	-3
Low-tech manufactures	25	-24	-7	-11	-16	-1
Medium-tech manufactures	-11	12	12	3	-22	-34
High-tech manufactures	15	-7	-21	-6	-13	-6

*Source:* Based on statistics from the *Chinese Customs Statistical Year Book*, various issues.

China's export price indices vis-à-vis the European Union rose on the whole, but modestly, with non-fuel primary commodities showing faster increases than manufactures. The movement of the classified indices of the manufactures was quite different from the movement of the indices of China's exports to the United States. The export indices of labour-/resource-intensive manufactures exported to the European Union increased a great deal, while the prices of low-tech manufactures and high-tech manufactures exported there all showed a downward trend. Products with huge contrasts were sanitary/plumbing equipment, iron/steel, communications equipment/semiconductors and aircraft: while the prices of those products exported to the United States rose 102 per cent, 16 per cent, and 50 per cent respectively, the prices of similar products exported to the European Union dropped by 5 per cent, 32 per cent and 8 per cent respectively.

A distinct contrast existed between the falling prices of non-fuel primary commodities exported by China to Japan and the rising prices of China's exports to Europe and the United States, especially the substantial rise in the prices of exports to the United States.

There were many similarities between the changing trends of the price indices of China's manufacture exports to Japan and to the European Union. The prices of China's labour-/resource-intensive manufactures and medium-tech manufactures exported to the two trade partners all increased almost to the same degree, while the prices of the other two categories of manufactures – low-tech manufactures and high-tech manufactures – all showed a downward trend, though to different degrees. In addition, the prices of electrical machinery exports (other than semiconductors) to Europe and Japan rose substantially, while the prices of iron/steel, transport equipment (other than motor vehicles and aircraft), non-electrical machinery and computers/office equipment all dropped to a greater or lesser degree.

However, the price changes for some products were unique to trade with Japan. For instance, the prices of wood/paper products, fabricated metal products and chemical/pharmaceutical products exported to Japan showed an upward trend, while the prices of such products exported to Europe and the United States decreased. The price index of ships/boats exported to Japan rose surprisingly, reaching 155 per cent. The degree of decline in the price indices of high-tech manufactures exported by China to Japan largely exceeded the degree of decline for the prices of similar products exported by China to the European Union. The reason for this phenomenon was that the prices of computers/office equipment and scientific instrument/watches/photographic equipment exported to Japan fell sharply, 50 per cent and 47 per cent respectively.

Although the price indices of China's manufactures exported to the four Asian NIEs – Hong Kong (China), the Republic of Korea, Singapore and Taiwan Province of China – had their own characteristics, they had similarities with the price indices of China's exports to developed countries. The index of China's manufacture exports to the NIEs dropped by 0.3 per cent, which distinguished it from the upward movement of prices vis-à-vis developed countries. But for classified manufactures, the change in China's export prices to the NIEs was generally the same as the trend for China's export price index to Japan and the European Union. The prices of China's labour-/resource-intensive manufactures and medium-tech manufactures exported to the NIEs showed an upward trend, while prices of low-tech manufactures and high-tech manufactures moved downward. The difference was that although the prices of labour-/resource-intensive manufactures and medium-tech manufactures rose, the rise was much smaller than that of the prices of similar products exported to Japan and Europe. Two other important differences were that the prices of China's ships/boats exported to the

NIEs dropped 44 per cent and the prices of computers/office equipment rose 33 per cent. The two types of price movement were completely different from the price moves in relation to the European Union, Japan and the United States.

The changes in the price index of China's manufactures exported to the ASEAN nations tallied with the movement in the price index of China's exports to developing countries. During 1993–2000, the former dropped by 13 per cent and the latter by 14 per cent.

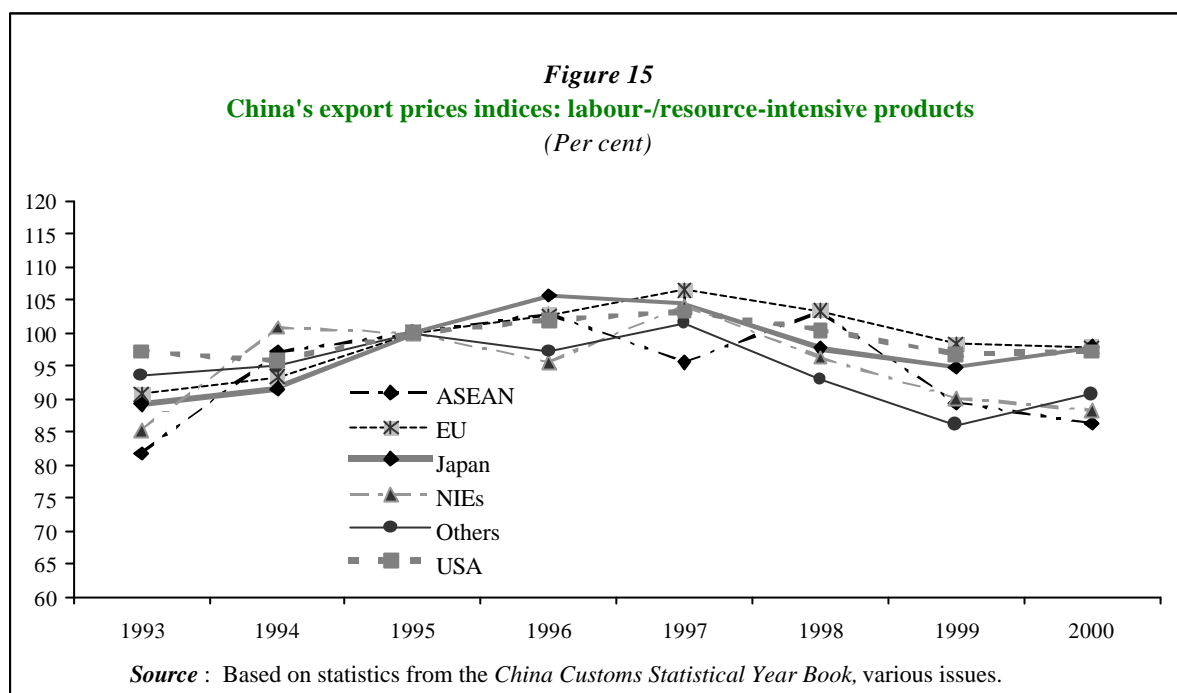
The classified price indices of China's manufacture exports to the ASEAN nations changed in the same way as did the classified price indices of exports to developing countries. In contrast to a slight rise in the prices of labour-/resource-intensive manufactures, the prices of other low-, medium-, and high-tech manufactures all showed a downward trend, and the decrease in prices of medium- and high-tech manufactures exported to the ASEAN nations was greater than that of the prices of similar products exported to developing countries.

Changes in the prices of China's exports to developing countries other than the NIEs and the ASEAN nations differed from the price changes for China's exports to the above-mentioned two areas. The prices of China's primary commodities exported to other developing countries picked up by 14 per cent, which mirrored the rise in export prices to Hong Kong (China) but not the changes in the prices of exports to the ASEAN nations. However, there were many more similarities among the price index changes of China's manufactures exported to other developing countries, including the export price changes of classified products and the price changes for China's exports to the ASEAN nations. The price index of China's exports of manufactures to other developing countries showed a downward trend, and the four types of classified export price indices did the same.

### *3. Changes in prices of classified manufactures exported to major trade partners*

#### *a) Labour-/resource-intensive products*

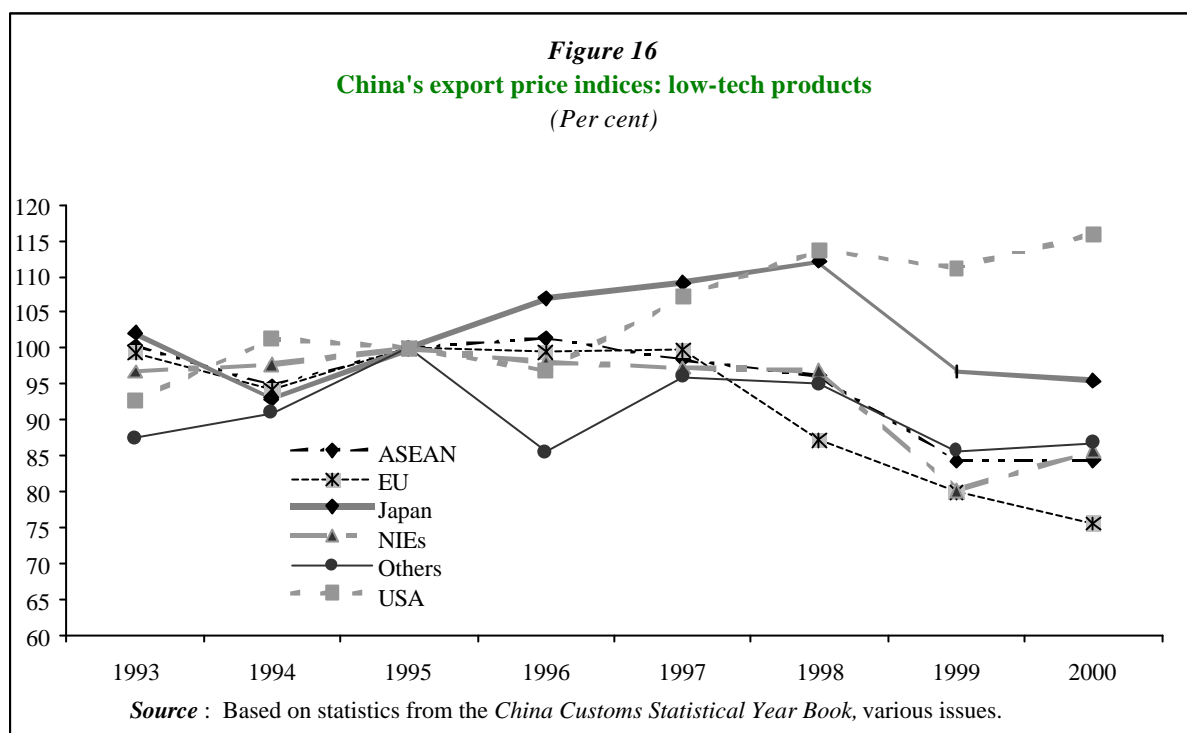
China is a big exporter of labour-intensive manufactures. The export price index shows that since 1993 the prices of China's leather/textiles/apparel/footwear exported to its major trade partners have risen overall. During 1993–1997, the export prices of such products increased as a whole, but the Asian financial crisis of 1997 drove down the export prices of China's manufactures, labour-intensive products included. Between 1997 and 1999, the prices of China's leather/textiles/ apparel/footwear exported to the United States and Europe dropped by 6.7 per cent and 6.6 per cent, respectively; the prices of exports to the ASEAN nations fell by 9.8 per cent; and the prices of China's exports to developing countries other than the ASEAN nations and the NIEs declined by 21 per cent. However, labour-intensive manufactures were quick to recover from the crisis. In 2000, the export prices of China's leather/textiles/apparel/footwear resumed their climb, the prices of exports to the United States and Europe almost stopped falling, prices of exports to Japan were up 3 per cent, prices in relation to the ASEAN nations and the NIEs were still dropping, and the export prices vis-à-vis other developing countries climbed by 5.5 per cent (figure 15).



Wood/paper products and non-metallic mineral products belong to the category of resource-intensive manufactures, for which price trends differ completely from the price trends for labour-intensive manufactures. The prices of wood/paper products exported to China's major trade partners (including exports to other developing countries) showed an overall downward trend, but with the prices of exports to Japan and the NIEs rising somewhat. The prices of non-metallic mineral products exported by China to its major trade partners all moved sharply downward. However, the prices of non-metallic mineral products exported by China to other developing countries performed the other way round, increasing a hefty 49 per cent, and did not stop rising even during the Asian financial crisis.

#### b) *Low-tech products*

Low-tech manufactures are a product for which China has a strong production capability, and exports of such products are expanding fast. However, during the period in question, as exports expanded, the export prices of most such products went down. Obvious examples include iron/steel and transport equipment other than motor vehicles and aircraft. The prices of iron/steel exported by China to its major trade partners dropped sharply. Although the prices of China's exports to the United States rose by 16 per cent when compared in real terms with those of 1993, they began falling in 1997 and declined 7.6 per cent in four years. The prices of China's iron/steel exported to other developing countries showed an overall upward trend, although there were ups and downs. The prices of China's transport equipment (other than motor vehicles and aircraft) exported to all the major trade partners (including other developing countries) went down, and not only because of the short-term influence of the financial crisis (although this influence was not negligible). Even before the crisis, the prices of exports to developed countries had begun to fall. The crisis only accelerated and deepened the process. By 2000, the prices of exports to developed countries and the NIEs had still not recovered (figure 16).



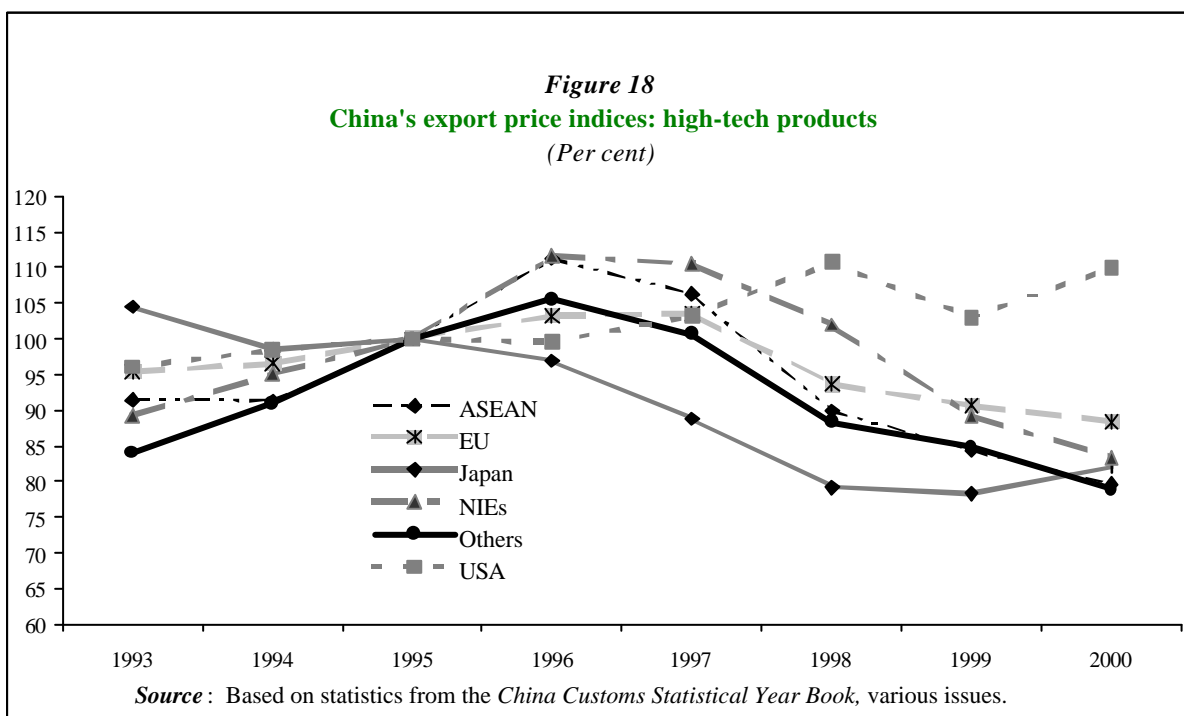
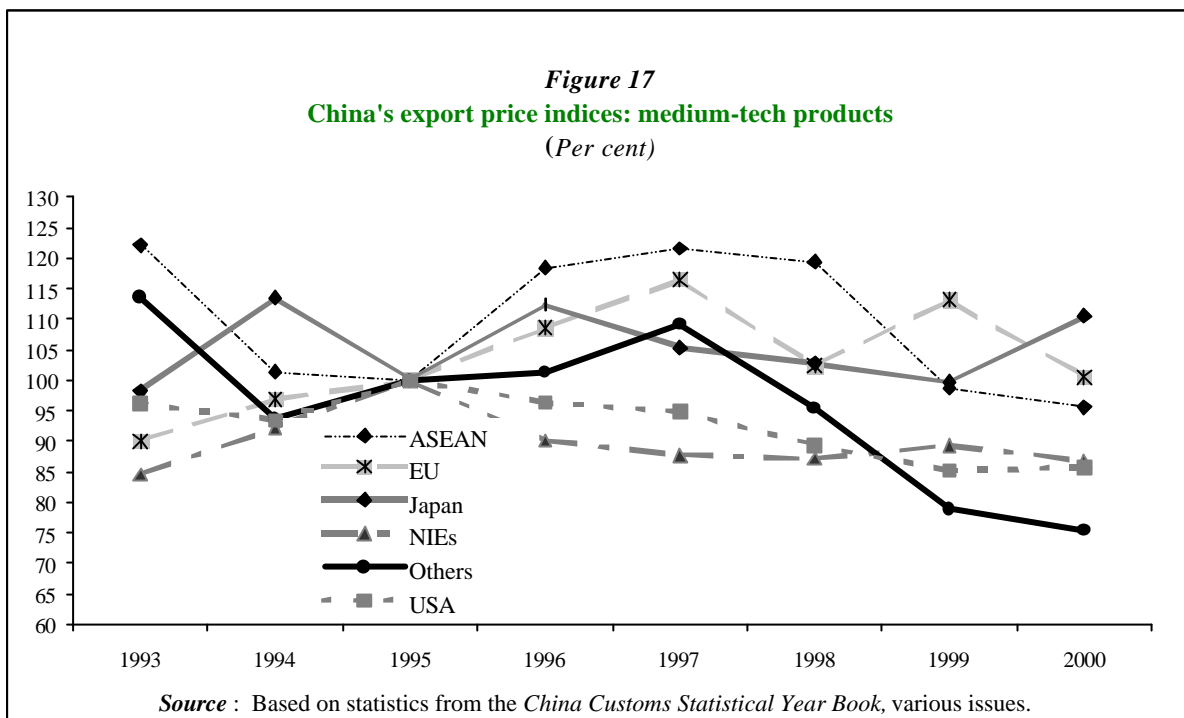
The prices of sanitary/plumbing equipment exported by China to the United States, Japan and the NIEs have risen considerably since 1997. Other products with such drastic increases in export prices include aircraft and communications equipment/semiconductors exported to the United States, ships/boats exported to Japan, road motor vehicles exported to the European Union and electrical machinery exported to Japan and the European Union. This unusual phenomenon has its specific reasons, which will be probed later in this paper.

#### c) *Medium-tech products*

The prices of rubber/plastic products exported by China to the United States, Japan and the European Union have been falling since 1996, as have the prices of similar products exported to developing countries. As with transport equipment other than aircraft and motor vehicles, the prices of China's non-electrical machinery exported to the major trade partners and to developing countries other than the NIEs and the ASEAN nations showed an overall drop. Mirroring the general rise in the prices of leather/textiles/apparel/footwear exported by China to the major trade partners and to developing countries other than the NIEs and the ASEAN nations, the prices of non-electrical machinery mostly rose as well (figure 17).

#### d) *High-tech products*

Over the past years, China has achieved remarkable progress in promoting exports of its high-tech products, which accounted for 31.4 per cent of its total exports in 2000. Aided by direct foreign investment in the high-tech sector, both export prices and the quality of products have improved greatly. This study has shown considerable increases in the price indices of exports of aircraft and parts and of communication equipment/semiconductors to the United States, and of computer/office equipment to Japan.



However, despite great improvement in the quality of individual products, a majority of high-tech products made for export remain uncompetitive with those produced by developed countries and NIEs or even the ASEAN nations. Recent years have seen a large reduction in the price indices of computer/office equipment exported to the European Union, Japan and other developing countries, and in those of scientific instruments/watches/photographic equipment exported to Japan, the NIEs and the ASEAN nations (figure 18).

## **B. China's exports and their influence on export prices**

Increases in the volume of Chinese exports, changes in the structure of China's export commodities and improvements in their quality together influence prices for export products. The point is that efforts to improve the quality of export commodities are far from adequate and that, besides, structural changes in China's exports are attributable mainly to exterior factors such as foreign direct investment (FDI). Under such circumstances, increases in the volume of Chinese exports have been the decisive factor influencing export prices.

For 2000, the country's export value totalled US\$210.48 billion for manufactured goods, 5.7 times the figure for 1990. Non-traditional export commodities, including medium- and high-tech products (rather than the labour-/resource-intensive and low-tech products that are China's traditional exports) were responsible for this sharp increase in China's exports in the 1990s. Statistics show that, while China's exports of labour-/resource-intensive products in 2000 were 4.6 times as great as in 1990, and the increase for low-tech products was 5.1 times, the corresponding increases for medium- and high-products were 10.6 and 9.9 times, respectively.

Government support and assistance were responsible for such rapid growth in China's exports of manufactured goods in so short a period, while two other factors also contributed directly. One was processing trade, that is, the export of products made by processing imported parts and accessories for added value. In 2000, products exported by China through this type of trade accounted for 55 per cent of the country's total export volume. The share of high-tech products (mainly computers and communications equipment/electronic products) in China's export through processing trade was as high as 88.6 per cent. In essence, processing trade is a kind of cross-country production process and business operation in which production activities undertaken in different countries are streamlined by means of trading. To put it in another way, processing trade is a specific way of promoting the rapidly increasing globalization of production.

This specific form of trading is bound to influence China's export prices in the following three ways: (i) It can quickly boost the quantity of China's exports of manufactured goods, which restricts the rise of export prices. From 1993 to 2000, the quantitative index for China's export of manufactured goods grew from 68.7 points to 179.1. In contrast, the index of export prices registered only a 3 per cent increase. (ii) China is situated near the end of a production process that is becoming internationally integrated. The country engages mainly in relatively simple processing, and the added value generated through its exports stems more from the input of labour than from the technological content of the export products. This state of affairs makes it impossible for the export prices of Chinese manufactured goods to increase rapidly. (iii) Processing done on products oriented towards foreign markets remains relatively simple and hence generates little added value. For this reason, the



export prices for processed products are determined mainly by the prices of the parts and accessories being processed. Thus, the prices for China's exports will invariably be affected whenever higher-grade parts and accessories are put in for processing or when their international market prices change.

The apparel, communications/semiconductor and computer industries, in which processing trade accounts for a relatively large portion of total production, furnish a telling example. Between 1993 and 2000, the prices of integrated circuits imported by China from the ASEAN nations rose 439 per cent. As a result, the prices of automatic digital processors, copy machines and vehicle-mounted players with radios that China exported to the United States rose by 62 per cent, 175 per cent and 116 per cent respectively. These increases, as a matter of fact, were responsible for the improved price index for China's high-tech exports to the United States during the same period. Production share, or the globally integrated production process, had changed the structure of a country's trade and the direction of flow for the country's export products, as well as their relative prices.

Foreign direct investment (FDI) constitutes another major factor in the growth of China's exports of manufactured goods. Since the mid-1980s, China's manufacturing sector has benefited from a constant input of capital investment from abroad, which has increased each year and has allowed operation in more and more areas. The scene has become even more spectacular since the early 1990s. Showing faith in the constantly improving investment conditions and the country's huge market potential, transnational companies have been making giant inroads into the Chinese market. On the one hand, foreign capital has spurred the growth of exports of goods to China from countries where the investors are based. On the other, it has created opportunities for Chinese products to get into transnational companies' global sales networks. Trading transactions created or enhanced by direct investment are of decisive importance for China's endeavours to develop foreign trade.

In 2000, enterprises supported by foreign investment furnished 48 per cent of the total value for China's exports, and the share of foreign-funded enterprises in the total value of China's export of high-tech products – mainly communications/electronic products – was as high as 88.6 per cent. Because of FDI, export prices for some of China's non-traditional products have soared. FDI has helped China upgrade the technological and managerial level of its manufacturing industry, enhance its capability for exports of non-traditional products, and improve the quality of the industry's products. As was mentioned earlier, between 1993 and 2000 export prices for China's manufactured goods rose 3 per cent. The increase in export prices of labour-intensive products, if any, was minimal. In contrast, the increase in export prices of non-traditional products (mainly products exported to developed countries) was much greater. For instance, the increase was 175 per cent for sanitary/plumbing equipment, 203 per cent for ships/boats, 38 per cent for electrical machinery, 14 per cent for road motor vehicles, 92 per cent for aircraft, and 13 per cent for communications equipment/semiconductors.

This phenomenon was certainly associated with FDI from developed countries. Meanwhile, it is important to remember that foreign-funded enterprises tend to focus on labour-intensive undertakings, even though FDI has contributed to the increase in China's exports of non-traditional products. Relevant studies have highlighted the fact that foreign-invested enterprises prefer to focus on exports of plastic articles, furniture, metal articles, textiles and garments, stationery, meters and instruments. This state of affairs suggests that the technologies and most of the equipment brought in by foreign investors suit the needs of the Chinese market. The export of products produced by foreign-funded

enterprises also depends very much on their relatively low prices, which in turn explains the small margin of increase in China's export prices.

Between 1993 and 2000, China's exports of medium- and high-tech products grew much faster than those of labour-intensive and low-tech products. As a result, the structure of China's exports changed significantly. The proportion of labour-intensive and low-tech products to China's total exports dropped by 15.9 and 2.3 percentage points, respectively, while increases of 5 and 11.2 percentage points were registered for medium- and high-tech products.

From the point of view of terms of trade, however, the study of structural changes in China's exports has to take into account changes that occurred during the same period in the import-export differential. In theory, a country will be rated as a supplier of cheap resources on the international market – as a country that enjoys a relative advantage but has no competitive advantage – if the country's exports of low-added-value products exceed its imports of such products. If the country's exports of high-added-value products exceed its imports of such products, the country presumably enjoys advantages in capital and technology and therefore finds itself in a favourable position in international trade.

In the early 1990s, China had deficits in its trade of manufactured goods. The situation began changing for the better in the mid-1990s, when the country was able to achieve a trade surplus furnished mostly by export of labour-intensive products. (The fact is that, ever since China began implementing the policy of reform and opening to the world, it has enjoyed a surplus in trade of labour-intensive products.) The annual surplus grew rapidly, reaching US\$63.77 billion by 2000, a level 4.6 times that of 1990. By the mid-1990s, China had eliminated its trade deficits for low-tech products and had begun enjoying a surplus in this area as well. This surplus has increased steadily over the past few years. In contrast, China's trade in medium- and high-tech products has always been in deficit.

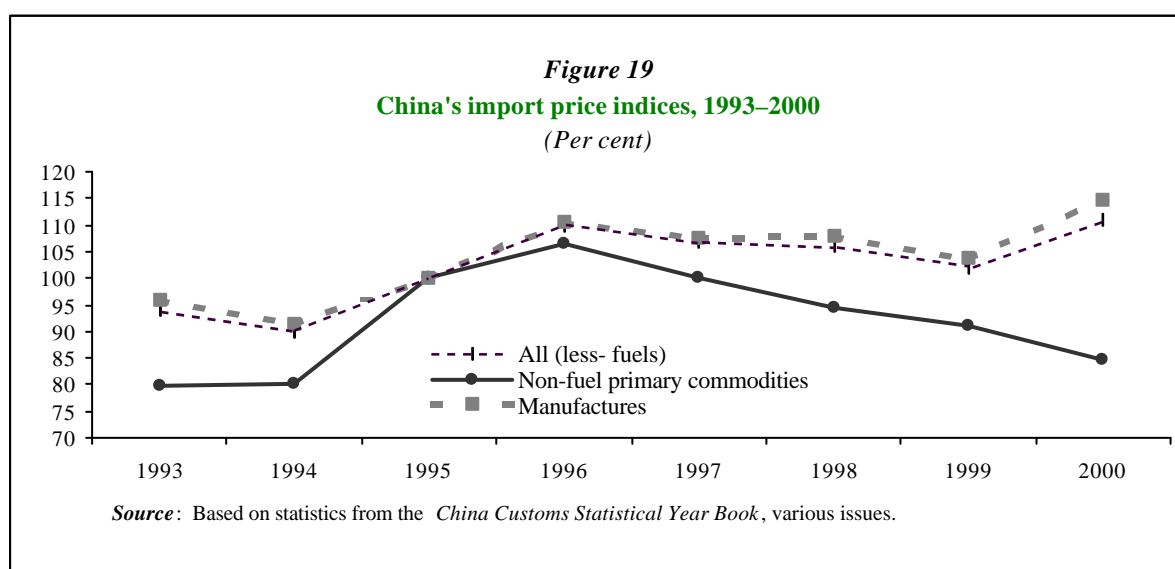
Comparing the structure of China's export of manufactured goods and its trade differential reveals an interesting phenomenon. China's trade in labour-intensive and low-tech products has enjoyed a constantly growing surplus while the proportion of these products to China's total exports has kept declining. Medium- and high-tech products form a growing proportion of China's total exports, but the deficits for China's trade of these products have been increasing. The growing deficits in China's trade of medium- and high-tech products and the increasingly great proportion of these products to China's total exports can be attributed to two factors: (i) The medium- and high-tech products imported by China are of high quality and their prices are therefore high. Meanwhile, products of the same categories exported by China are of inferior quality and their prices, therefore, are relatively low. (ii) China, more often than not, has had to increase its medium- and high-tech exports by using products made with imported intermediary products or parts or accessories. It is true that China adopts the same strategy to increase its exports of labour-intensive products, but the two cases are essentially different. Processing trade for production of labour-intensive products is meant to provide access to foreign companies' sales channels. In undertaking processing trade for production of medium- and high-tech products, China, while eyeing foreign sales channels, has to depend heavily on technological innovations accomplished abroad. That makes China's trade terms for high-tech products worse than those for labour-intensive products.

Until now, labour-intensive products have formed the largest portion of China's exports and have served as the main source of trade surplus. However, emphasis has long been on quantity rather than quality – on the extension of export volume rather than the enhancement of product quality. Domestic research indicates that increases in export volume have relied chiefly on increasing inputs of resources, funds and low-level labour. With their outmoded techniques, poor management and low labour productivity, some state-owned enterprises can maintain their production and export levels only with the help of state support in the form of funding as well as biases in policy, in licenses and in quotas. These low-level extensions inevitably lead to reductions in export prices and export benefits.

Over the past decade, China has rapidly expanded its exports of manufactured goods. What merits special mention is the fact that, aided by FDI and exports of processed goods, the country's exports of non-traditional products, including medium- and high-tech products, have been spectacular. However, at present, most products exported by Chinese enterprises that fall into the high-tech or medium-tech category are either products of low quality or standardized products with many suppliers in the world market. Slow improvements in quality and lack of innovation in processing, packaging and marketing keep most Chinese-made products at the market's low end, and fierce competition for those standardized products prevents prices from rising faster.

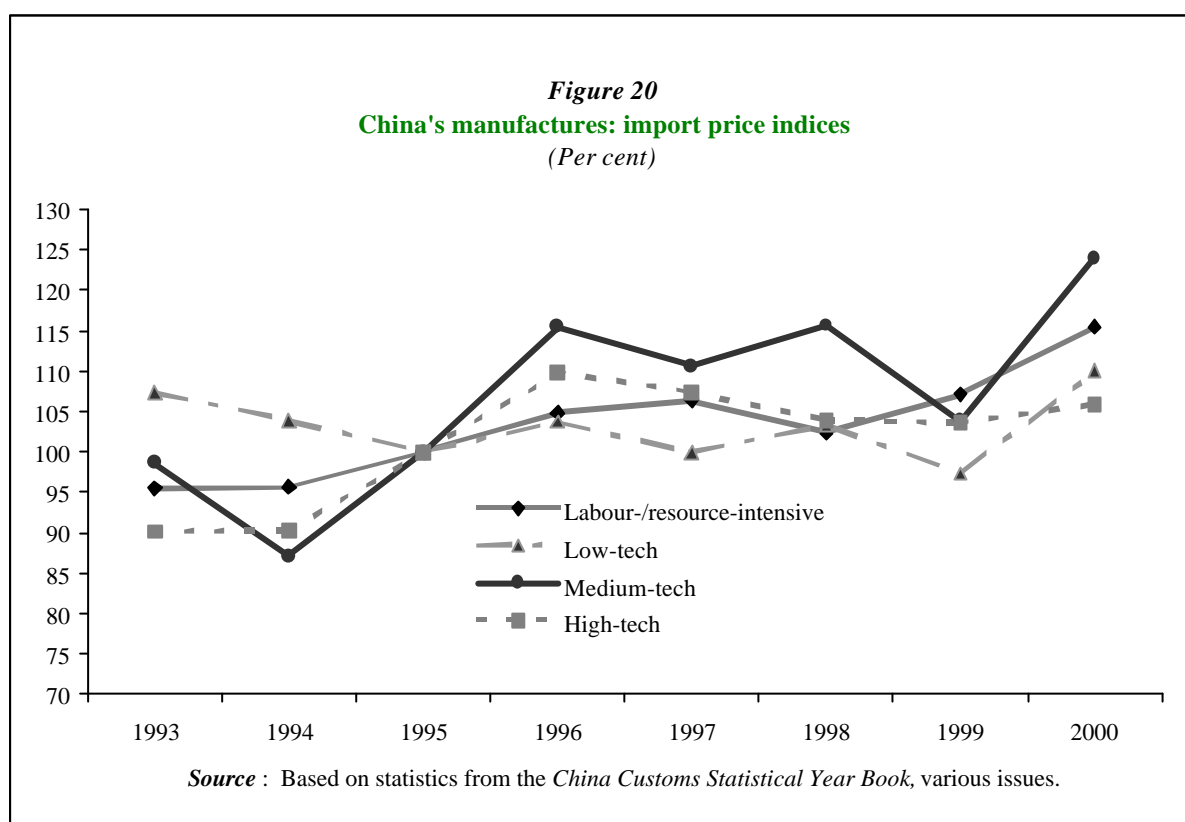
### C. Trends in China's import price index, 1993–2000

Between 1993 and 2000, China's import price index rose 19 per cent (figure 19). The major driving force behind this gain was a substantial increase in the import price index of manufactures, which rose by 20 per cent during this period, while the import price index of non-fuel primary commodities rose only 6 per cent.



The price indices of the four categories of manufactures rose overall, with a slight increase for low-tech manufactures and large gains for the other three categories. The price index of high-tech

manufactures rose 17 per cent and those of labour-/resource-intensive manufactures and medium-tech manufactures 21 per cent and 26 per cent respectively (figure 20).



Increases in the import prices of labour-/resource-intensive manufactures surpassed those in the import prices of manufactures. The prices of resource-based manufactures imported by China all showed an upward trend, but there was a difference of 20 percentage points between the price increases for wood/paper products and non-metallic mineral products.

There was an increase in the import prices of low-tech manufactures, among which sanitary/plumbing equipment and fabricated metal products showed respective increases of 27 per cent and 8 per cent. The import prices of iron/steel and transport equipment other than motor vehicles and aircraft rose only slightly. The import price index of medium-tech manufactures rose 25 per cent. In comparisons, the import prices of high-tech manufactures did not rise sharply. The import prices of such manufactures as computers/office equipment and communications equipment/semi-conductors all showed increases of more than 50 per cent, but the price indices of the other two categories, aircraft and scientific instrument/watches/photographic equipment, fell 11 per cent and 38 per cent respectively, preventing the import price index for high-tech products from rising more swiftly.

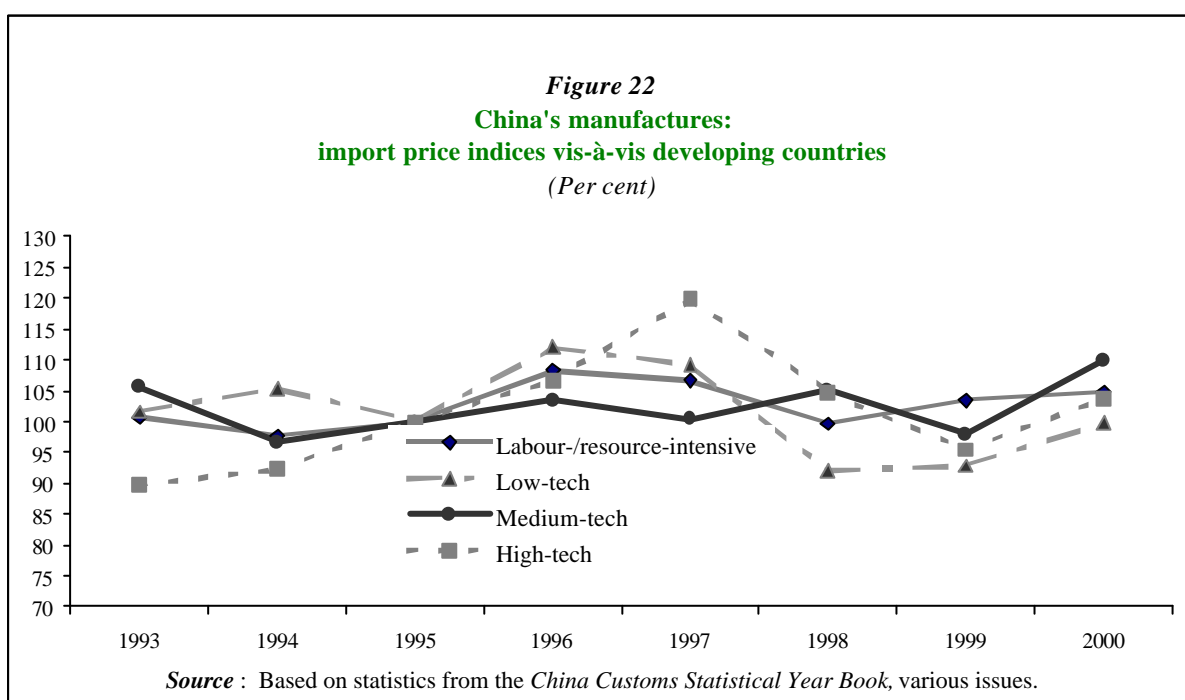
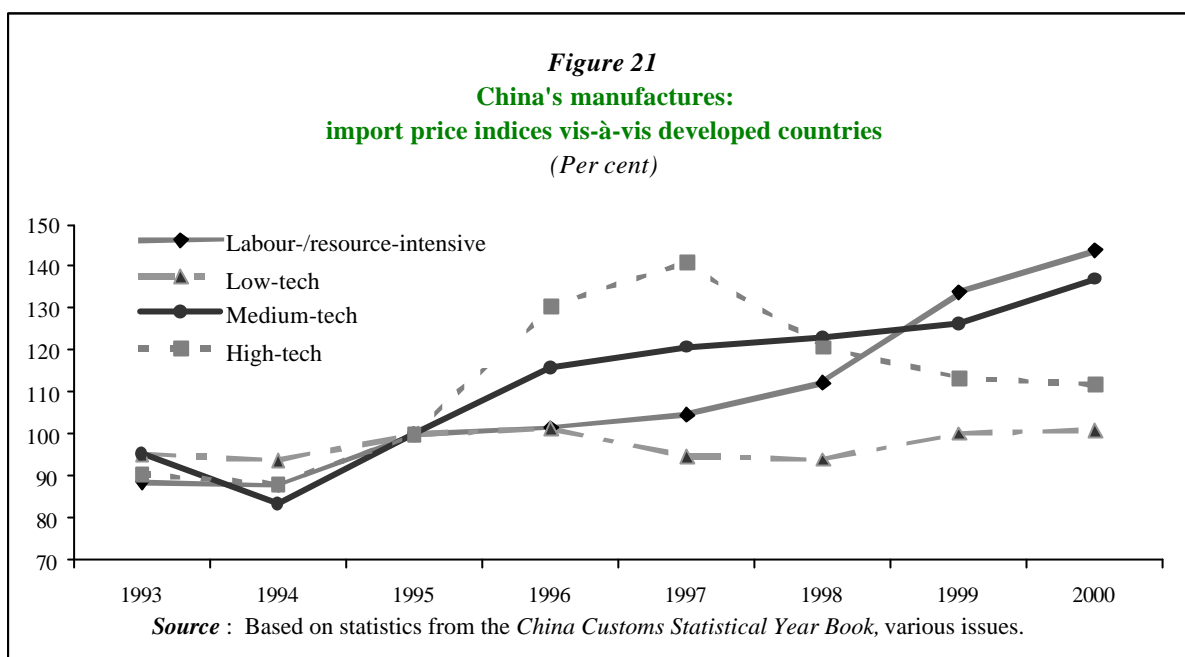
### *1. Changes in price indices of non-fuel primary commodities and of manufactures imported by China from developed and developing countries*

Marked contrasts exist between the prices of non-fuel primary commodities and manufactures imported by China from developed countries on the one hand and developing countries on the other. For non-fuel primary commodities, the prices of imports by China from developed countries surged 35 per cent while the prices of imports from developing countries rose only 5 per cent. The prices of manufactures showed the contrast. With regard to manufactures, the prices of labour-/resource-intensive manufactures exhibited particularly large contrasts. Analysis by category shows that the prices of wood/paper products from developed countries rose 109 per cent, while the prices of such products from developing countries rose only 15 per cent. A big difference also emerged in the import prices of labour-intensive manufactures, with the prices of leather/textiles/apparel/footwear imported from developed countries rising 52 per cent while the import prices of similar products from developing countries showed no surge.

As far as low-tech manufactures are concerned, China's trade exhibited different price trends for developed and developing countries (figures 21 and 22). The prices of iron and steel and fabricated metal products from developed countries basically moved upward while the prices of similar products from developing countries all went down. In contrast, the prices of transport equipment other than motor vehicles and aircraft and of ships/boats imported by China from developing countries increased, while the prices of such imports from developed countries decreased.

Enormous differences also emerged in the price trends for medium-tech manufactures imported by China from developed and developing countries. The overall difference was 40 percentage points. A large difference of 141 per cent was seen between the price changes of such manufactures as rubber/plastic products from developed and developing countries. At the same time, the prices of electrical machinery other than semiconductors from both developed and developing countries surged, reaching 121 per cent and 117 per cent respectively, showing no great difference – probably because those products came from local joint ventures or from privileged enterprises set up by developed countries.

In fact, the smallest differences existed between changes in the prices of high-tech manufactures imported by China from developed and developing countries: all prices rose. More important, the prices of the four categories other than aircraft from developed and developing countries moved in the same direction, though prices for imports from developing countries moved less than those for imports from developed countries. This suggests that high-tech manufactures are highly internationalized; it also shows that China's import sources of high-tech manufactures are relatively concentrated, based mainly in developed countries and NIEs, and that the high-tech industries of the developing countries have intimate relations with developed countries.



## 2. Changes in price indices of non-fuel primary commodities and of manufactures imported by China from major trade partners

The general import price index (including the import price indices of non-primary commodities and manufactures) shows little difference between changes in the prices of imports from the United States, Europe and Japan; all increased by almost 40 per cent. The difference was that the price indices of imports from the United States dropped 9.5 per cent in 1998, while the European Union's price index had a cumulative decline of 17.6 per cent during 1999 and 2000, and the prices of imports from Japan did not fall. The price indices of imports from the NIEs peaked in 1997 and then dropped a little in 1998, but in 2000 prices broke through their past ceilings. As a result, price indices between

1993 and 2000 far surpassed those for the ASEAN nations and other developing countries, though the increases were not as big as for developed countries. The prices of imports from the ASEAN nations kept rising from 1993 through 1996 but then declined for three consecutive years beginning with the 1997 financial crisis, thus losing ground with respect to other countries. In 2000 the indices started to pick up again. During 1993–2000 the prices of imports from other developing countries as a whole did not rise considerably, showing an increase of only 5 per cent. Between 1998 and 1999, however, prices declined by 17 per cent (table 4).

**Table 4**  
**Changes in China's import price indices vis-à-vis major trade partners, 1993–2000**  
(Per cent)

<i>Category</i>	<i>United States</i>	<i>EU</i>	<i>Japan</i>	<i>NIEs</i>	<i>ASEAN</i>	<i>Others</i>
All	37	39	38	24	-3	5
Non-fuel primary commodities	38	64	-8	9	-24	-1
Manufactures	35	38	41	25	17	12
Labour-intensive manufactures	94	22	74	6	16	-9
Low-tech manufactures	72	19	10	-7	-2	14
Medium-tech manufactures	53	55	63	43	6	63
High-tech manufactures	2	21	20	31	71	1

**Source:** Based on statistics from the *Chinese Customs Statistical Year Book*, various issues.

Changes in the prices of non-fuel primary commodities imported from major trade partners were much bigger than those in the general import price index. The prices of non-fuel primary commodities imported from the European Union and the United States rose 64 per cent and 38 per cent respectively. The prices of imports from Japan dropped 8 per cent, and the prices of imports from the ASEAN nations went down 24 per cent. A comparison of these figures with the price indices of the world market<sup>1</sup> for non-fuel primary commodities over the same period shows that since 1995 imports of non-fuel primary commodities from the United States and the European Union have increased rapidly.

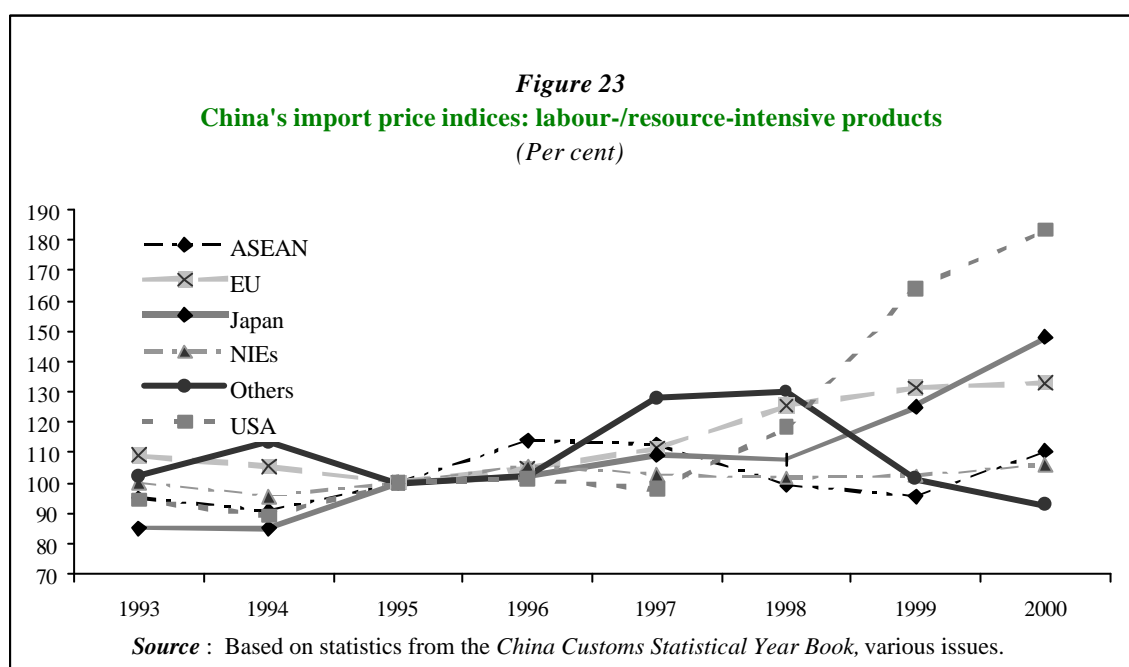
There was little difference between the changes in price indices of manufactures imported from the United States, the European Union and Japan; all rose approximately 40 per cent. However, large differences emerged in the prices of imports from the NIEs, the ASEAN nations and other developing countries. Although the prices of imports from the NIEs were lower than those of imports from Europe, the United States and Japan, they were much higher than those of imports from the ASEAN nations, and noticeably higher than those of imports from other developing countries.

<sup>1</sup> Based on world prices in IMF (2001). *International Financial Statistics Yearbook: 2001*, p.187. Washington, DC, International Monetary Fund.

### 3. Changes in import price indices of classified manufactures

#### a) Labour-/resource-intensive products

The price indices of labour-/resource-intensive manufactures imported by China from major trade partners during 1993–2000 all showed an upward trend, and in particular the prices of such products from the United States and Japan soared (figure 23). However, the price indices of labour-intensive manufactures imported from other developing countries declined. The prices of leather, textiles, apparel, and footwear imported by China from major trade partners increased by varying degrees. The prices of imports from Japan and the United States rose significantly, reaching 66 per cent and 41 per cent respectively; the prices of imports from the NIEs and the ASEAN nations did not rise much, only 2 per cent and 5 per cent. These statistics suggest that the quality of imports from the United States and Japan has been improving while the quality of imports from the NIEs and the ASEAN nations has hardly changed.



Over the same period, the prices of leather/textiles/apparel/footwear imported by China from other developing countries went down instead of up. As a matter of fact, the price indices of leather/textiles/apparel/footwear imported by China from other developing countries increased from 100.8 in 1993 to 135 in 1998, a rise of 34 per cent. This price index dropped 30.7 per cent within two years due to the Asian financial crisis, not unlike the declining price indices of similar products imported from the ASEAN nations, which dropped 35 per cent from 1997 to 1998. However, the crisis did not prevent the prices of leather/textiles/apparel/footwear imported from the United States and the European Union from going up. Between 1997 and 2000, the prices of the above-mentioned products imported from the United States kept rising, with an average annual increase of 15 per cent. The crisis caused drops of 4.2 per cent and 2.3 per cent, respectively, in the prices of imports from Japan and the NIEs – hardly significant changes.



Although the export prices of leather/textiles/apparel/footwear to China by ASEAN nations and other developing countries did not rise as much as the prices of imports from the United States, Europe and the NIEs, the prices of toys and sports equipment imported by China from the first group of countries were much higher than those of similar products imported from the latter group. Moreover, during the financial crisis, the prices of such imports from these two groups of nations rose instead of falling.

The prices of wood and paper products imported by China from developed countries showed a rather big increase, especially imports from the United States and Japan. Price indices for the United States and Japan rose drastically in 1998 and 1997, which had not happened before. The price indices of similar imports from the European Union had always been relatively high and showed bigger increases starting in 1998.

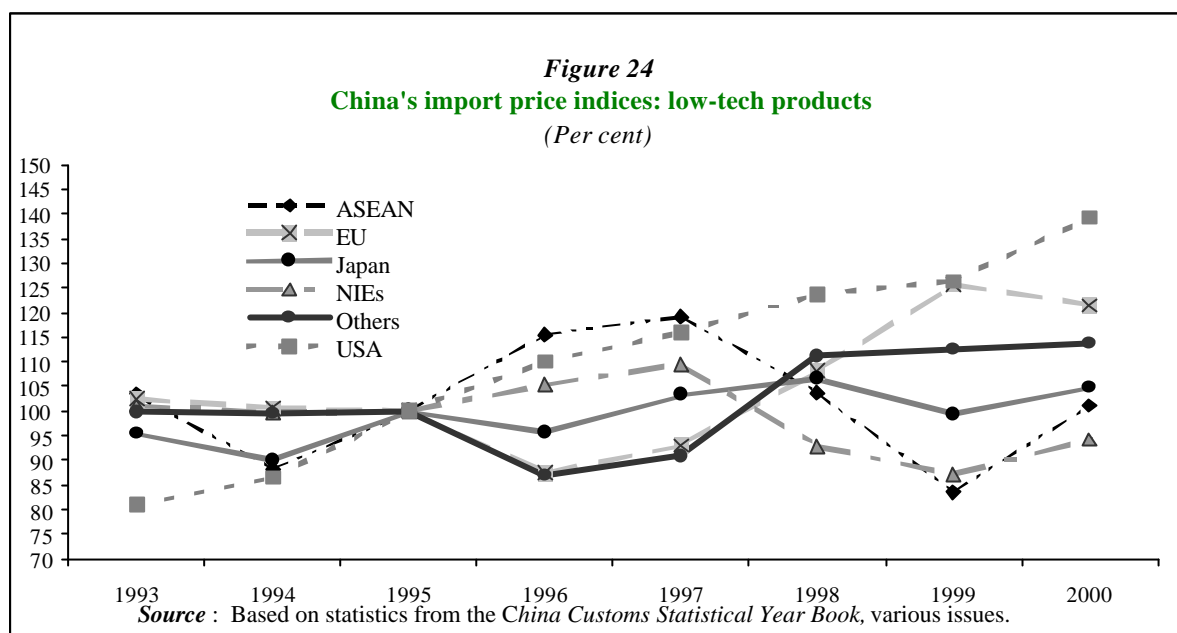
There was quite a big difference between the changes in prices of non-metallic products imported by China from its trade partners. The prices of imports from the United States and the ASEAN nations rose 41 per cent and 211 per cent respectively, while the prices of similar products imported from the European Union and other developing countries dropped 52 per cent and 50 per cent. (The difference may result from the composition of the imports.)

*b) Low-tech products*

Conflicting trends in the price movements for low-tech products imported from China's major trading partners were found over the period 1993–2000 (figure 24).

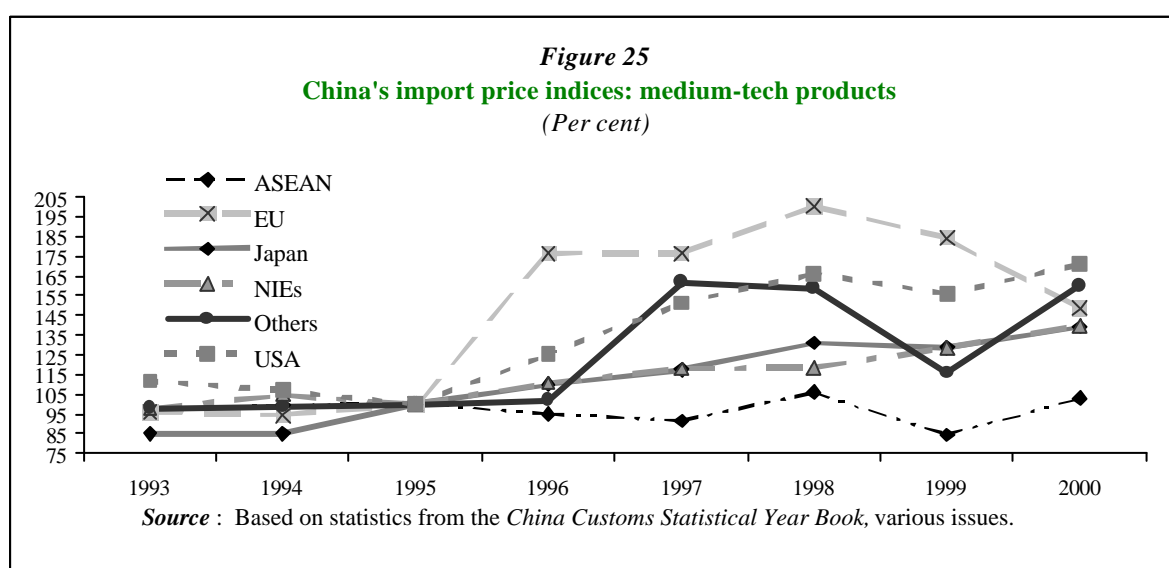
Since 1993, the price of low-tech products imported from the United States has increased steadily because of the big rise in the import prices of a range of products from iron/steel and fabricated metal products to sanitary/plumbing equipment. However, the import price indices of most imports in this category from the European Union and Japan did not rise significantly; only the import prices of sanitary/plumbing equipment from the European Union and Japan showed an increase similar to those for United States products – 236 per cent and 135 per cent respectively. Almost no change has occurred in the price index of iron/steel from Japan, but the corresponding import prices for the European Union, the ASEAN nations and other developing countries rose 21 per cent, 15 per cent and 17 per cent respectively.

Over the years, China received lower-priced transport equipment (other than motor vehicles and aircraft) from Japan and the European Union, but higher-priced equipment from the NIEs, the ASEAN nations and other developing countries. The import prices of transport equipment from the ASEAN nations and other developing countries in particular rose by 56 per cent and 67 per cent respectively, larger margins even than those of United States products.



c) *Medium-tech products*

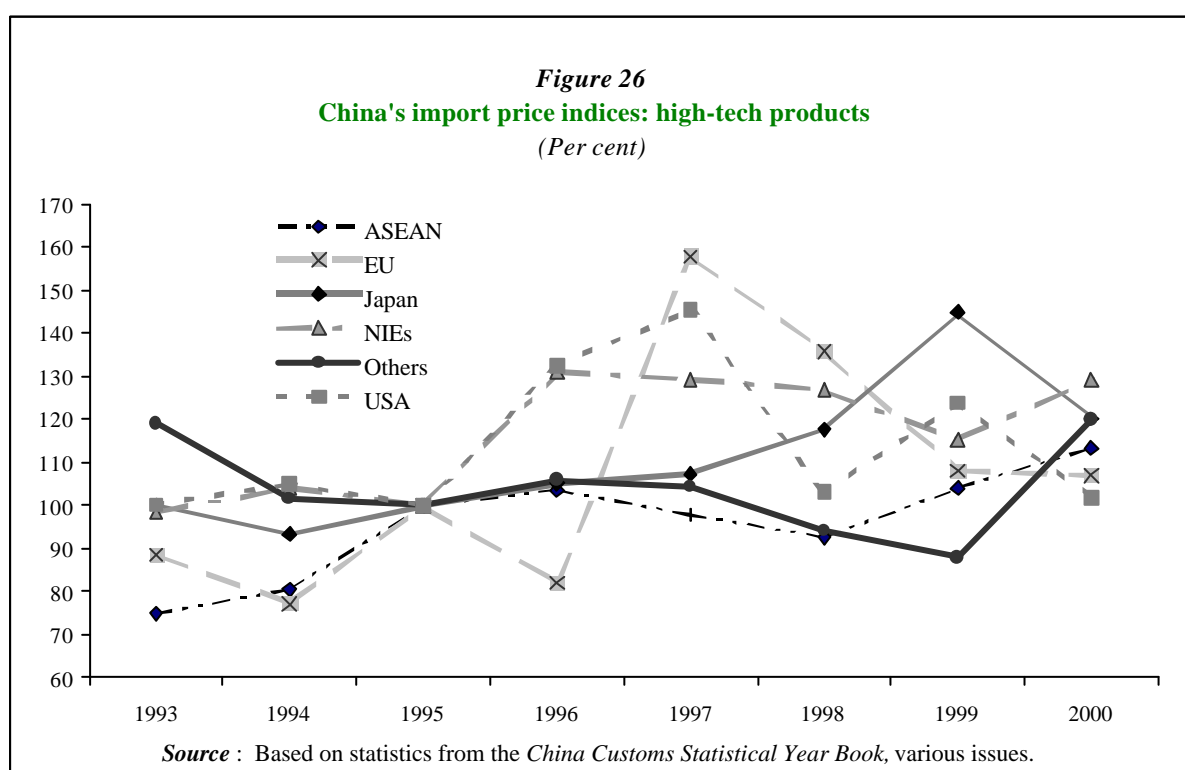
The prices of medium-tech products imported from major trade partners other than the ASEAN nations all rose remarkably. The prices of medium-tech manufactures imported from other developing countries changed much more than did the prices of other manufactures, gaining 63 per cent and thereby surpassing the rise in prices of imports from the United States, Japan, the European Union and the NIEs. This price index had a large drop of 27 per cent between 1998 and 1999 but rebounded strongly in 2000, increasing by 38 per cent. After 1995, the prices of medium-tech manufactures imported from the European Union showed a drastic increase, exceeding 70 per cent, and then fell until 1998. The prices of imports from the United States also showed a larger increase after 1995, and afterwards they did not decline sharply. The prices of imports from Japan and the NIEs had no substantial ups and downs, maintaining a general upward trend (figure 25).



d) *High-tech products*

In the mid-1990s, the prices of high-tech manufactures imported by China from the United States and the European Union rose substantially. The prices of imports from the United States rose 45 per cent from 1995 to 1997, while the prices of imports from the European Union surged more than 90 per cent from 1996 to 1997. However, both indicators slumped in 1998. The price indices of high-tech manufactures imported from Japan have been climbing since 1995, and between 1997 and 1999 they showed a cumulative 35 per cent rise. But the prices of imports from the United States and the European Union were decreasing by 1999. In contrast, during the same period the prices of high-tech manufactures imported from the NIEs, the ASEAN nations and other developing countries were increasing.

However, the developing trends were different. The prices of imports from other developing countries have been declining continuously since 1993, but a surge of 35 per cent occurred during 1999–2000, shrinking the contrast with the price changes of other countries. Things were different regarding the ASEAN nations: before the financial crisis, the price indices of high-tech manufactures imported from the ASEAN nations showed a continuous increase. The financial crisis interrupted this process, and prices dropped in the two consecutive years of 1997 and 1998. In 1999 and 2000, however, prices rebounded. The prices of China's imports from the NIEs caused a substantial surge of more than 30 per cent in 1995. They dropped a bit afterwards, but not as much as did the prices of imports from Europe and the United States (figure 26).



## **D. China's imports and their influence on import prices**

The 1990s witnessed sustained growth in China's imports as the state policy of reform and opening to the outside world was further implemented. The country's imports totalled US\$225.1 billion, 4.2 times the figure for 1990. The import value of manufactured goods was US\$173.8 billion, which represented a 4.7-fold increase over 1990, or an annual average increase of 16.7 per cent, slightly smaller than the annual average increase for China's exports of manufactured goods. Of the four categories of manufactured goods, the greatest annual average increase – 20 per cent – was registered for imports of high-tech products, followed by imports of medium-tech and labour-intensive products (17 per cent for both categories). The annual average increase in imports of low-tech products was a mere 6.3 per cent.

As was mentioned above, manufactured goods have assumed an increasingly large share of China's exports. The structural changes in China's imports, however, have been in the opposite direction, with primary products accounting for a growing portion of China's imports, from 14 per cent in the early 1990s to 21 per cent in 2000. A structural change has also occurred in China's imports of manufactured goods: during the same 10-year period, the ratio of low-tech products to China's total imports of manufactured goods dropped from 18.8 per cent to 8 per cent. In contrast, the corresponding ratio for high-tech products grew from 33 per cent to 43 per cent. No significant change occurred in the position of China's imports of medium-tech products. These trends suggest that, while China has enhanced its own capacity for conventional processing, the country has become increasingly dependent on foreign countries for raw materials and intermediary and high-tech products as it pursues industrialization and as the national economy becomes more and more open.

The sharp increase in imports can be attributed to China's need to develop modern industries and improve people's lives. It is also the inevitable result of the opening of the domestic market, the development of processing trade and the influx of foreign capital. While boosting China's imports, these factors exerted a significant influence on import prices.

### **1. Opening of the domestic market**

Back in the early 1990s, China began reforming the system of import control. Since then it has abolished the regulatory tax on all imports, time and again cut import tariff rates, and reduced the number of import items subject to licensing. Meanwhile, following international practices, the country adopted the system of public bidding for imports still subject to licensing. The inventory of imported products is no longer subject to examination by customs – in other words, such examination is no longer used as a basis for restricting imports. These measures have effectively improved international access to the Chinese market and have enabled the country to significantly increase imports of products that used to be under strict control. Consequently, import prices have remained high.

To improve its economic and technological development relative to developed countries and jump-start the national economy, China needs to import large quantities of advanced technological equipment as well as raw materials and intermediary products needed in domestic industrial production. Most sorely needed is mechanical and electrical equipment that can upgrade the capacity and capability of the domestic manufacturing industry. The study described in this paper revealed that

during the 1993–2000 period, the greatest increase, averaging 108 per cent annually, occurred in the prices of imported electrical machinery. For imports of such machinery from the European Union, the annual price increase averaged 212 per cent, followed by imports from the United States (201 per cent) and Japan (120 per cent). Back in the 1980s, China began importing industrial raw materials in large quantities. Since the early 1990s, the shortage of resources has become increasingly acute. Natural rubber, ethylene, chemical fertilizer, wood and paper products have been imported in quantities that are huge relative to the size of domestic production. China's huge demand for these products often boosts their international prices, and, as the present study shows, import prices have risen markedly for all these products. On average, import prices have risen 28 per cent for wood/paper products and 26 per cent for plastic articles. The increase is even sharper for China's import of these two categories from developed countries – 109 per cent and 144 per cent, respectively.

## *2. Increase in domestic consumption*

China's demand for imported high-quality consumer goods has kept growing as people's standard of living has improved and the national economy has continued its rapid development. Between 1993 and 2000, import prices for imported toys and apparel grew, on average, by 20 per cent. Prices for imports of these products from the United States and Japan are even higher. Prices for toys from the United States increased 35 per cent and for apparel 41 per cent. For the same products from Japan, import prices rose by 71 per cent and 66 per cent, respectively.

## *3. Supporting the expansion and upgrading of exports*

Over the past decade, imports have grown steadily in support of the processing trade activities undertaken in China. In most years, processing trade furnishes more than 40 per cent of the country's total exports. As a result, more and more raw materials and intermediary and finished products have been imported in support of the foreign-market-oriented processing trade, and their import prices have been able to exert an increasing influence on import prices as a whole.

Foreign-funded enterprises, which account for a large proportion of the processing business, purchase most of the necessary raw materials, parts and accessories from their own countries or parent companies or through international purchases. In other words, their purchases from China, the host country, are relatively limited. As international demand grows for higher-quality processed products, more and more high-grade raw materials and parts and accessories have had to be imported and, as a consequence, their import prices have become higher and higher. This phenomenon is most striking in China's trade in apparel and electronic products. Between 1993 and 2000, import prices for labour-intensive products rose sharply, to the surprise of many, and import prices for such products from developed countries grew even faster than prices for high-tech products from the same countries. Behind this eye-catching phenomenon was the Chinese market's enhanced capacity to absorb high-grade textiles, apparel, shoes and toys from the United States and Japan, as well as the country's increasing need to import high-grade intermediary products to support production of export-oriented products.

#### 4. *The influence exerted by foreign-funded enterprises*

In most cases, foreign-funded enterprises operating in China are attracted by the country's relatively cheap labour resources and, for that reason, strongly prefer to engage in processing trade. The way foreign-funded enterprises undertake purchasing is bound to influence not only the quantity and value of China's imports but also import prices. Until now, most foreign-funded enterprises have preferred to purchase intermediary products from abroad, which explains why imports by foreign-funded enterprises have always had a high volume and value. In 2000, foreign-funded enterprises were responsible for 52 per cent of China's total imports, an amount greater than their share of China's total exports.

The prices that foreign-funded companies pay for internal purchases from their parent companies also influence the prices of products that China imports. According to a study by Long Guoqiang and others,<sup>2</sup> for transnational companies operating in China, internal purchases account for 30.4 per cent of their total purchases, and the corresponding figures are 50 per cent for companies funded by the European Union, 29.4 per cent for companies funded by the United States, and 25 per cent for companies using Japanese capital. The way transnational companies undertake purchasing is, in fact, a part of their strategy for developing a global market. For internal purchases, transnational companies invariably prefer internal transfer prices that are different from prices prevailing in international markets. Under such circumstances, there is a possibility that they will overvalue imported goods.

All of the above factors play a role in driving up China's import prices.

#### **E. Impacts of the exchange rate on China's export-import price ratio**

In 1994, China undertook a major reform of the system of foreign exchange control. It abolished the long-standing double-tier system, under which official rates of exchange existed alongside regulatory rates on exchange markets, and replaced it with a system that allows controlled flotation of exchange rates according to market demand and supply. A unitary exchange rate was imposed, with the official rate changed from Y5.8 against the United States dollar to Y8.7 against the dollar, which represented a nominal devaluation of the Chinese currency by as much as 33 per cent. The devaluation of the yuan effectively influenced China's import and export. In 1994 and 1995, the first two years during which the unitary rate of exchange prevailed, China's exports registered yearly increases of 31.9 per cent and 22.9 per cent, respectively. In contrast, the rate of increase for China's imports dropped from 29 per cent in 1993 to 11.2 per cent in 1994 and then to 14.2 per cent in 1995.

The devaluation of the yuan in a way also influenced China's import and export prices. In theory, the devaluation of the yuan could have led to a drop in export prices for China's manufactured goods, which, in turn, should have increased the possibility for China to enhance the international competitiveness of its export products. The truth, however, is that the index for China's exports of manufactured goods for 1994 was 4.7 per cent higher than it was for 1993. More precisely, export price indices rose for three of the four categories of manufactured goods produced in China. Low-tech products were the only exception; their export price index fell slightly, by 3.4 per cent. The greatest

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<sup>2</sup> Long Guoqiang, A long industrial chain pursued. *Intertrade*, February 2001.

increase, 9.5 per cent, was recorded for the export price index of labour-intensive products, and the increase in the export price index of non-fuel primary products was 8 per cent. Behind this phenomenon was the fact that strong international demand was increasingly driving up international prices. According to the world price indices formulated by the United Nations for manufactured goods, 1995 and 1996 saw the highest prices for manufactured goods in the 1990s. With the 1990 index set at 100 points, the index was computed at 110 for 1995 and 106 for 1996, while the baseline figure, 100, was not attained in any of the other years in the 1990s. Thanks to the strong market demand, the prices for China's exported products, instead of dropping, recorded some growth.

The contribution of the yuan's devaluation to improving China's export price indices therefore became largely covert. Two other factors also helped prevent China's export prices from declining. First, the actual rate of the yuan's devaluation in 1994 was not 33 per cent, as it was then assumed; the 33 per cent devaluation was just nominal. Long before 1994, the regulatory exchange rate – that is, Y8.70 against the United States dollar, had been used in 80 per cent of the country's export transactions. Experts calculate that, based on this fact, the actual rate of the yuan's devaluation in 1994 was around 10 per cent. Secondly, processing trade has always accounted for a fairly large share of China's total exports, and in 1994 it accounted for for 47 per cent of exports, to be exact. The effect of the yuan's devaluation on China's export of processed products was limited.

The 1994 devaluation of the yuan caused the import price index for manufactures to drop by an average of 4.9 per cent. The import price indices for low- and medium-tech products dropped by 3.4 per cent and 11.7 per cent respectively. The import price indices for labour-/resource-intensive and high-tech products remained basically the same, and no significant change was observed in the import price index for non-fuel primary products. The decline of import price indices as a result of the yuan's devaluation coincided with a rise of export price indices in response to strong international demand. This enabled the ratio of export prices to import prices to rise in 1994 and, consequently, helped to improve China's terms of trade. But before long, the 1995 import price indices began rebounding at a rapid pace and by a big margin. Though the export price index kept rising, the price ratio of exports to imports dropped as the rise of the import price index outpaced the rise of the export price index.

Ever since the unitary exchange rate was imposed in 1994, exchange rates for the yuan have, by and large, been stable while registering a slight upward revaluation. The currency remained stable even during the 1997–1998 Asian financial crisis. This stability has helped to curb the price competition in Chinese export expansion. In 1996, when the world price index for manufactured goods began a downward slide, export prices for China's manufactured goods nevertheless did not drop. In 1997, when the exchange rate changed from Y8.7 against the dollar in 1994 to Y8.2796 against the dollar, meaning a 5.1 per cent upward revaluation for the Chinese currency, China's export price index in fact grew by 10.5 per cent, and manufactured goods in particular registered a 7.7 per cent increase in their export price index. Changes in China's exchange rates also affected the country's import price index, which rose by 18.9 per cent during the 1994–1997 period.

## F. Impacts of the Asian financial crisis on China's export-import price ratio

The Asian financial crisis severely affected the international market, resulting in shrinking demand and dropping prices. According to calculations by the International Monetary Fund, the world export price for manufactured goods sank 8.0 per cent in 1997 and a further 1.9 per cent in 1998.<sup>3</sup> Though not directly hit by the crisis, China felt its disastrous effects keenly, as it has close economic and trade relations with the hardest-hit countries and regions, including the ASEAN nations, Hong Kong (China), the Republic of Korea and Taiwan Province of China. In 1998, China's exports rose by a mere 0.5 per cent, and decreases of 6.7 per cent, 11.5 per cent, 13.1 per cent and 31.3 per cent were registered for China's exports to Japan, Hong Kong (China), the ASEAN nations and the Republic of Korea, respectively. Negative growth was reported for the combined volume of China's imports and exports.

In many ways, the Asian financial crisis affected China's import and export prices for manufactured goods. For details, see tables 5 and 6.

**Table 5**  
**Changes in China's import prices for manufactured goods during the Asian financial crisis**  
(Per cent)

Category	United States	EU	Japan	NIEs	ASEAN
Manufactured goods	8.3	-20.7	16.5	-2.3	-11.5
Labour-intensive products	87.0	18.0	-1.5	-1.1	-16.0
Low-tech products	20.0	35.0	-3.8	20.5	-27.0
Medium-tech products	13.0	-25.7	-1.6	18.6	-11.1
High-tech products	-28.0	-32.0	35.0	-10.9	-10.5

*Source:* Based on statistics from the *Chinese Customs Statistical Year Book*, various issues.

**Table 6**  
**Changes in China's export prices for manufactured goods during the Asian financial crisis**  
(Per cent)

Category	United States	EU	Japan	NIEs	ASEAN
Manufactured goods	-5.1	-12.7	-9.4	-14.7	-17.4
Labour-intensive products	-6.2	-8.2	-9.3	-15.0	-9.7
Low-tech products	-2.2	-24.2	-12.5	-11.9	-14.0
Medium-tech products	-10.0	-13.6	-5.4	-1.1	-25.3
High-tech products	-0.3	-14.6	-11.7	-24.5	-25.5

*Source:* Based on statistics from the *Chinese Customs Statistical Year Book*, various issues.

<sup>3</sup> Calculations based on data in IMF (2001). *World Economic Outlook: Financial Turbulence and the World Economy*. Washington, DC, International Monetary Fund, October, p. 223.



A country-by-country analysis reveals that the Asian financial crisis had a measurable impact on China's import prices for manufactured goods from the ASEAN nations and the European Union. Prices fell for all categories of products from the ASEAN nations, and the drop in prices was fairly large for China's imports of medium- and high-tech products from the European Union. On the other hand, the impact on prices for imports of manufactured goods from Japan was relatively small.

A product-by-product analysis shows a relatively big effect on the prices of China's imports of high-tech products. The crisis hardly affected the climb of China's import prices for labour-intensive, low-tech and medium-tech products from the United States; instead, it caused the import prices for high-tech products from the United States to plummet. Nevertheless, the crisis did not prevent China's import prices for high-tech products from Japan from going up. During the crisis, the price index for such products continued to soar, leading to a higher import price index for manufactured goods from Japan.

The Asian financial crisis adversely affected export prices for all of China's trade partners, with export prices for the ASEAN nations and the NIEs most severely affected. As regards China's trade partners among developed countries, prices for exports to the European Union suffered the greatest drop. A product-by-product analysis shows that the drop in prices for exports of high-tech products to the NIEs and the ASEAN nations was greater than the drop for products of other categories. In contrast, the phenomenon was not observed in the prices of exports of such products to developed countries. To be precise, relatively large decreases were reported in the prices of low-tech exports to the European Union and Japan and medium-tech exports to the United States.

A comparison of the changes in China's import and export prices reveals that the Asian financial crisis affected export prices more than import prices. It did so in the following two ways: (i) The decline in export prices was greater than the decline in import prices. The export prices of manufactures dropped at a greater rate than import prices vis-à-vis all countries and regions included in table 6, the United States being the only exception. (ii) Export prices kept dropping over a fairly long period. Except for a limited number of products, an upward swing had, by 2000, been observed for China's import prices for all products vis-à-vis all countries and regions listed in the table. In contrast, no rebound occurred for China's export prices vis-à-vis the ASEAN nations, the NIEs and the European Union.

During the crisis, China's terms of trade deteriorated vis-à-vis all of the country's trade partners, but the degree of deterioration varied from case to case. The index for trade terms went down by around 20 per cent vis-à-vis the ASEAN nations, Japan and the NIEs, in comparison with a 5.6 per cent decline vis-à-vis the United States. From the point of view of products, however, the situation was much more complicated. The greatest decreases were observed in the indices of China's terms of trade for high-tech products vis-à-vis the ASEAN nations, Japan and the NIEs, the respective figures being 35 per cent, 34.6 per cent and 24.6 per cent. In contrast, China's trade terms for high-tech products improved significantly vis-à-vis the European Union, with the index increasing by 27.9 per cent. China's trade terms vis-à-vis the United States, taken as a whole, changed for the better even though the index fluctuated during the crisis.

## G. Summary

Between 1993 and 2000, China's terms of trade tended to go from bad to worse. This state of affairs was attributable to the quantitative expansion of imports and exports and their structural changes, as well as the outbreak of the Asian financial crisis. Changes in the yuan's exchange rate also played a part. Here are the major conclusions reached in this chapter:

- (i) Since the early 1990s, China has rapidly increased its exports of manufactured goods, especially non-traditional products such as medium- and high-tech products. However, the prices of manufactured goods exported by China increased slowly. This can be attributed to two circumstances: (a) China depends too much on foreign suppliers of intermediary products for production of foreign-market-oriented medium- and high-tech products, and (b) it emphasizes the volume of exports while neglecting improvement of product quality.
- (ii) China is accelerating its industrialization process and opening its market step by step. Import prices have been growing relatively fast because of two factors: (a) increased domestic consumption of consumer goods and capital goods, as well as raw materials and intermediate goods for industrial production; and (b) a need to support the export of processed products.
- (iii) For a time, the 1994 devaluation of the yuan stimulated the growth of exports but, in some ways, held back the growth of imports. Despite that, export prices increased somewhat thanks to strong demand for Chinese products on the international market. The currency devaluation also caused import prices to rise somewhat, which helped improve China's trade terms for 1994. Between 1994 and 1997, the Chinese currency, while stable, experienced a slight upward revaluation, which, in a way, contributed to the rise of export prices during that period.
- (iv) The Asian financial crisis exerted a major influence on the growth of China's import-export trade and its price movement. The growth of China's exports slowed, negative growth was reported for imports, and import and export prices both dropped. Export prices kept dropping over a longer period than did import prices. Nevertheless, the rate of decrease for China's imports of high-tech products from the European Union and the United States far exceeded the rate of decrease for its exports of high-tech products to them. The crisis caused an overall deterioration in China's terms of trade vis-à-vis its major partners .

## III. PROPOSALS FOR IMPROVING CHINA'S TERMS OF TRADE

Major changes are taking place in international trade. These include rapidly advancing economic globalization, the information technology revolution, the removal of industrial barriers (as well as other measures being taken in many countries to lift trade restrictions) and the increasing attention of the international community to the issue of sustainable development. Facing these changes, all countries, developing ones in particular, are striving to find a new pattern of development that, unlike the old one, is not characterized by excessive dependence on cheap labour.

Unskilled labour, a relative shortage of capital and land resources and technological backwardness are major handicaps for developing countries in their development efforts. These factors adversely affect the structure of these countries' exports and place their trade under great disadvantages. In the short run, it will be neither possible nor advisable for developing countries to thoroughly change the structure of their exports, which are now dominated by labour-intensive products. For now, developing countries should pin their hopes on efforts to increase the high-tech component of their labour-intensive export products. In the long run, however, developing countries should strive, under government-sponsored programs for coping with international competition, to improve their competitiveness through the development of technology-intensive industries. To achieve this purpose, developing countries need to change their policies with regard to the following two areas:

- (i) In the area of labour-intensive products, opportunities for developing countries will come from redoubled efforts to adapt to changes in the international business environment. Countries can achieve this by developing their human resources and name-brand products and adopting international technological standards to improve the quality of their labour-intensive products, increase their technological content, and enable them to generate more added value.
- (ii) In the area of development of technology-intensive products for export, the stress should be on institutional restructuring of the industrial establishment hand-in-hand with implementation of plans that call for vigorous support for industrial development. The comparative advantage of developing countries will not naturally transform itself into the kind of competitive advantage characteristic of technology-intensive products. This transformation must result from the implementation of strategies designed specifically to boost industrial and trade development. Only in this way can developing countries completely change their terms of trade.

The following proposals are designed to help developing countries gain an internationally competitive edge in technology-intensive industries while keeping their competitive advantage in the production of labour-intensive products:

- (i) *Strive to fully develop human resources and increase the added value of labour-intensive products.* In the foreseeable future, there will be room for development of internationally needed labour-intensive products. Despite that, developing countries should change their competition strategies so as to avoid a situation where exports constantly increase while terms of trade keep deteriorating. Their focus should shift from the low cost of their labour to improving the quality of their labour force. As the knowledge-driven economy gathers momentum in development, only by constantly improving the quality of human resources can developing countries strengthen their links with developed economies and place themselves in an advantageous position in this new round of global innovation of industries and products.

The relations governing factors of production are bound to change during a given product's life cycle: a product currently regarded as technology-intensive could in a short time be relegated to the labour-intensive category. In this era of rapid development of science and technology, accelerating technological innovation has greatly shortened the cycle of product development. To recover the cost of developing a product and strive for maximum profitability, an enterprise should, instead of attempting to monopolize the relevant technology, spare no effort to find, somewhere in the world, a production base where the various resources can be best integrated, and introduce the product into as many markets as possible. In doing so, the abundant labour at the disposal of developing countries will continue to be important in their endeavors to participate in international division of labour.

The transfer of international production described above, however, differs in some respects from transfer in traditional industries. While the ultimate objective in both types of transfer is to seek low-cost factors of production, the transfer of products made by new technologies also calls for improved quality in the factors of production and heightened attention to market development. Unlike natural resources, technological innovation capabilities are a uniquely human contribution to the process of creating and producing a product. Whether an enterprise or a country owns creative assets such as innovation capabilities determines whether it will become competitive in the world market. Acquisition of creative assets abroad has, in fact, become the operational strategy for increasing numbers of transnational companies. Because of this, whether developing countries can join in international production of high-tech products hinges on their sustained investment in and development of human resources to improve the overall quality and technical capabilities of their labour force. Moreover, this will be an effective way of improving the terms of trade for labour-intensive products.

*(ii) Develop name-brand products and improve the quality of manufactures.* Low product quality and low added value are common defects in labour-intensive products made in developing countries. They constitute a major factor responsible for the deterioration of these countries' terms of trade. The vast price differential between developed and developing countries in the international market for labour-intensive products reflects not only their different levels of development but also the differences in their respective concepts of industrial operation. More specifically, enterprises in developing countries have failed to formulate strategies for competition in response to changes occurring in international markets. Competitive pricing is no longer enough; even labour-intensive products must compete on the basis of product quality and name brands.

*(iii) Implement plans for assistance to industrial production.* Processing trade constitutes a fairly large part of China's exports. This can be attributed to two reasons: (i) China is weak in basic industries, and industries producing parts and accessories are, in fact, underdeveloped; and (ii) the various industries and the different sectors of a given industry are loosely connected. More precisely, there are no links effective enough to "chain" the various industries and the various sectors of a given industry. This state of affairs is responsible not only for China's dependence on processing trade but also for the import in huge quantities of intermediary products needed to produce finished products for export. Other developing countries striving to export finished products may have the same problem. To overcome the problem, developing countries should work hard to develop industries producing parts and accessories. This will help promote the

development of their basic industries, strengthen their technological force, enhance their competitiveness in international markets, and ward off the adverse effects on the growth and returns of their export that might otherwise result from appreciation of international currencies and price cuts in international markets.

Developing countries also need to strengthen the links between various production chains. Foreign trade experts have warned that after China enters the World Trade Organization, it is likely to see its imports grow faster than its exports and to see terms of trade worsen. Solving the problem of domestic industrial chains will help China replace some of its imports with domestically produced products. It will greatly boost the country's trade efficiency and will create new opportunities for the export of technology-intensive products produced in China.

## ANNEX

*Table A.1*  
**Classification of manufactures**

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<i>Type of manufacture</i>	<i>SITC code</i>
<b>Labour-/resource-intensive products</b>	
Leather, textiles, apparel, footwear	61–85
Toys and sports equipment	894
Wood and paper products	63,64,82
Non-metallic mineral products	66
<b>Low-skill/low-tech/low-capital-intensive products</b>	
Iron and steel	67
Fabricated metal products	69
Transport equipment other than motor vehicles and aircraft	78,79
Sanitary and plumbing equipment	81
Ships and boats	793
<b>Medium-skill/medium-tech/medium-capital-intensive products</b>	
Rubber and plastic products	62,893
Non-electrical machinery	71–74
Electrical machinery other than semiconductors	77
Road motor vehicles	781–784
<b>High-skill/high-tech/high-capital-intensive products</b>	
Chemical and pharmaceutical products	5
Computers and office equipment	75
Communications equipment and semiconductors	76,776
Aircraft	792
Scientific instruments, watches, photographic equipment	87,88

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*Source:* This classification is based on UNCTAD, *Trade and Development Report 1996*, p. 116.

**Table A.2**  
**China's export market distribution**  
(Per cent)

	<i>United States</i>	<i>Japan</i>	<i>European Union<sup>a</sup></i>	<i>NIEs<sup>b</sup></i>	<i>ASEAN</i>	<i>Subtotal</i>
1985	8.5	22.3	8.0	34.0	2.7	75.5
1990	8.3	14.5	9.4	46.1	2.8	81.1
1995	16.6	19.1	12.8	33.1	3.7	85.3
2000	20.9	16.7	15.3	26.7	3.8 (7) <sup>c</sup>	83.4

**Source:** *China Customs Statistics Year Book*, 1993–2000.

- a** There were nine members in the European Union in 1985; 12 members in 1990; and 15 members in 1995 and 2000.
- b** The NIEs include Hong Kong (China), the Republic of Korea, Singapore and Taiwan Province of China. China had no direct trade with the Republic of Korea or Taiwan Province of China in 1985 and 1990.
- c** Figure outside brackets includes only Indonesia, Malaysia, the Philippines and Thailand; figure inside brackets includes the 10 ASEAN countries.

**Table A.3**  
**China's import market distribution**  
(Per cent)

	<i>United States</i>	<i>Japan</i>	<i>European Union<sup>a</sup></i>	<i>NIEs<sup>b</sup></i>	<i>ASEAN</i>	<i>Subtotal</i>
1985	12.0	35.6	13.0	12.0	2.1	74.7
1990	12.4	14.2	15.7	28.3	3.9	74.5
1995	12.2	22.0	16.0	28.0	3.7	81.9
2000	9.9	18.4	13.7	28.0	7.0 (9.9)	77.0

**Source:** *China Customs Statistics Year Book*, 1993–2000.

- a** There were nine members in the European Union in 1985; 12 members in 1990; and 15 members in 1995 and 2000.
- b** The NIEs include Hong Kong (China), the Republic of Korea, Singapore, and Taiwan Province of China. China had no direct trade with the Republic of Korea or Taiwan Province of China in 1985 and 1990.
- c** Figure outside brackets includes only Indonesia, Malaysia, the Philippines and Thailand; figure inside brackets includes the 10 ASEAN countries.

**Table A.4**  
**Composition of China's exports**  
*(Per cent)*

	<i>1990</i>	<i>1995</i>	<i>2000</i>
<b>Primary commodities</b>	<b>25.90</b>	<b>14.9</b>	<b>10.9</b>
<b>Manufactures</b>	<b>74.10</b>	<b>85.1</b>	<b>89.1</b>
Labour-/resource-intensive products <sup>a</sup>	57.80	50.9	41.9
Low-tech products <sup>a</sup>	11.50	11.0	9.2
Medium-tech products <sup>a</sup>	10.50	13.2	17.5
High-tech products <sup>a</sup>	20.18	24.8	31.4

*Source:* *China Customs Statistics Year Book*, 1993–2000.

<sup>a</sup> These percentages, which are of total exports of manufactures, do not always add up to 100 owing to rounding.

**Table A.5**  
**Composition of China's imports**  
*(Per cent)*

	<i>1990</i>	<i>1995</i>	<i>2000</i>
<b>Primary commodities</b>	<b>14.4</b>	<b>16.4</b>	<b>20.7 <sup>a</sup></b>
<b>Manufactures</b>	<b>85.6</b>	<b>83.6</b>	<b>79.0 <sup>a</sup></b>
Labour-/resource-intensive products <sup>b</sup>	14.0	18.0	14.0
Low-tech products <sup>b</sup>	18.8	9.5	7.3
Medium-tech products <sup>b</sup>	34.6	38.0	35.6
High-tech products <sup>b</sup>	32.6	34.3	43.0

*Source:* *China Customs Statistics Year Book*, 1993–2000.

<sup>a</sup> These percentages, which are of total composition of China's imports, do not add up to 100 owing to rounding.

<sup>b</sup> These percentages, which are of total exports of manufactures, do not always add up to 100 owing to rounding.



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