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RECONCILING CHINA'S TRADE STATISTICS

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EXECUTIVE SUMMARY

Since the mid-1980s trade between the United States and China has grown rapidly. However, the divergence in U.S. and Chinese statistics measuring this trade has grown even more rapidly. In 1992, China reported exports to the United States of US$ 8.6 billion and imports of US$ 8.9 billion, almost balanced trade. Yet, U.S. statistics showed imports from China of US$ 27.5 billion and exports of US$7.4 billion, a US$ 20 billion trade deficit.

This pattern of discrepancy also is common between Chinese and other partner country trade statistics. These differences in trade statistics generate friction in partner countries as they perceive themselves to be generating significant deficits in their economic relations with China. Further, the discrepancies in data make it very difficult for countries, such as the United States, to determine competitiveness and markets.

This study identifies potential sources of discrepancies in trade statistics, attempts to evaluate and measure them, and establishes a methodology for reconciling Chinese and partner country data.

Discrepancies in trade statistics can be separated into two major types: 1) those that originate in the definitions, concepts and methods used to compile statistics, and 2) those that originate in external circumstances. In this report, our initial focus is on U.S.-Chinese trade; however, the lessons learned in examining and reconciling U.S. and Chinese statistics then are applied to other countries to determine an adjusted set of global trade figures for China.

By far the most important factor in differences between Chinese and U.S. trade statistics in 1992 is the accounting of goods transported via Hong Kong. For a number of trade transactions passing through Hong Kong, U.S. and Chinese trade accounts record different partner countries. This difference in partner country attribution probably accounts for more than half of the discrepancy in statistics on trade flows from China and nearly half of the discrepancy on trade flows from the United States.

The second largest factor in reconciling bilateral trade statistics is the reexport margin, also referred to as transit trade markup. This factor also is related to the large volume of Chinese trade that is funneled through Hong Kong. In this case, the difference is not a statistical artifact but the cost added to goods by businesses or other intermediaries in Hong Kong after they have left China. This factor accounts for another 16 percent of the discrepancy in trade flows from China and 24 percent of the discrepancy in flows from the United States.

One other definitional factor is a major contributor to the discrepancy: differing valuation procedures used in reporting trade, CIF vs. FOB. The valuation difference is the second most important factor in reconciling U.S. reported exports with Chinese reported imports and the third most important factor in reconciling U.S. reported imports with Chinese reported exports.

The final significant factor -- an external one -- affecting trade statistics is timing. The time lag between the registration of an export and its registration as an import in the receiving

country depends on the distance and mode of transport, but it is about one month in the case of the U.S. and China.

In addition to the four major sources noted above, there are numerous other definitional and external factors that can be identified as contributing to the discrepancy between U.S. and Chinese trade statistics. These include other definitional and methodological factors such as:

type of trade system (special vs. general)
use of low-value threshold, and
geographical boundaries;

and external factors such as:

change in destination after export, and
smuggling.

While we cannot estimate the value of these factors in all cases, we feel they result in negligible differences as compared to the major factors.

Starting with U.S. reported trade statistics and taking into account the four major factors, we are able to determine a range of reconciled figures for China's trade with the United States. The range reflects our uncertainty concerning the largest element, partner country attribution on trade through Hong Kong. Adjusting U.S. reported imports from China lowers the figure to US$ 8.1 to US$ 11.2 billion. The Chinese reported figure of US$ 8.6 billion in exports to the U.S. falls in the lower end of this range. Similarly we adjust U.S. reported exports of US$ 7.5 billion to China and estimate a range of US$ 9.0 to US$ 10.8 billion. The lower end of this range still exceeds slightly China's reported imports from the U.S. of US$ 8.9 billion.

We then use what was learned from analyzing bilateral U.S. and China trade statistics and assessing the role of Hong Kong in China's indirect trade to derive a range of adjusted global import and export trade figures for China. The figures are based on statistics from China's 12 major trading partners. An algorithm is used that adjusts for the known discrepancies: 1) FOB-CIF valuation difference; 2) the reexport margin added by Hong Kong; 3)differences in partner country attribution; and 4) the time lag effect. We estimate three scenarios with different sets of assumptions regarding the impact of the known sources of discrepancy to arrive at a range of estimates for trade flows in both directions.

China's adjusted global imports range from US$ 68.5 to US$ 77.6 billion. China's reported global imports of US$ 80.6 billion exceed estimates for all three scenarios. Estimates of China's adjusted global exports range from US$ 80.9 to US$ 106.7 billion, straddling China's reported exports of approximately US$ 92 billion. Because ranges are estimated for both adjusted global imports and adjusted global exports, the range for China's trade balance is large: US$ 3.3 to US$ 36.8 billion. According to China's reported trade statistics, China achieved a US$ 11.4 billion trade surplus in 1992.

One might expect that the partner country attribution problem would disappear when dealing with China's global trade figures. On a bilateral basis two countries may differ in the recording of the trading partner but globally the trade should balance out. However, because Hong Kong serves as a major trade transit center, Hong Kong records separately domestic

exports and those goods it is reexporting. To avoid double counting, Hong Kong domestic imports and exports are used in the adding up of partner trade data. Therefore, the possibility of partner country attribution differences remains for China's global trade. These differences arise for a variety of reasons including: 1) the final destination is unknown at the time of export; 2) countries apply different rules in determining country of origin; and 3) political sensitivity in identifying a particular trading partner.

For China's reported global imports to be consistent with partner country statistics, China's trading partners must attribute half of the value of exports that are shipped through third countries as exports to the third country rather than to China. There is evidence that some U.S. products are recorded as exports to Hong Kong even though they ultimately are being reexported by Hong Kong to China. It is perfectly understandable that this will happen occasionally given the geographic proximity of Hong Kong to China and the major involvement of Hong Kong businesses in China trade. How frequently it occurs is impossible to say without more detailed information. In 1992 Taiwan is perhaps the most extreme example of the difference in partner country attribution. Taiwan attributed only US$ 1 million in exports to China yet Hong Kong reported reexports of Taiwan goods to China exceeding US$ 6 billion and China recorded nearly US$ 6 billion in imports from Taiwan.

When adjusting China's global exports, one scenario assumes there are no partner country attribution differences. In this scenario, China's adjusted global exports are only about US$ 81 billion, 15 percent less than China's reported global exports. Higher Chinese official statistics for global exports could be consistent with legitimate Chinese exports that pass through Hong Kong and are not recorded by any partner country as a domestic import.

Starting in 1993, the discrepancies caused by Hong Kong reexports declined substantially with an improvement in the verification of the declared destination for exports by China customs. Nevertheless, a portion of Chinese exports shipped through Hong Kong continue to be classified by China as exports to Hong Kong because the final destination is not known at the time of shipping. Therefore, the overlap between Hong Kong reexports and China's reported exports to the United States and other countries has increased. While the gap between China's official trade statistics and those compiled by its trading partners narrowed significantly in 1993, a gap will persist because of the major role of Hong Kong in China's indirect trade. In addition to the country attribution problem, Hong Kong businesses continue to add a margin to the goods reexported to and from China.

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I. INTRODUCTION

China's total merchandise trade grew by an average annual rate of 12 percent from 1980 to 1992, experiencing more than a fourfold increase from US$ 38 billion to US$ 166 billion. At the same time, the divergence widened between U.S. and China statistics on their bilateral trade. The gap increased annually by 27 percent from 1986 to 1992 (from less than US$ 4 billion to over US$ 20 billion), a far greater increase in the divergence than would have been expected given overall growth in trade. In 1993 China's total merchandise trade increased to US$ 197 billion and the gap in the two countries trade statistics narrowed slightly to US$ 16.5 billion.

A comprehensive understanding of the U.S.-China bilateral trade balance and China's total trade is essential for several reasons. First, the perceived gap contributes to trade friction between the two countries with U.S. statistics showing an ever increasing trade deficit with China while Chinese statistics indicated a U.S. trade surplus until 1993. Second, to determine U.S. competitiveness in the China market it is necessary to know what U.S. products are actually reaching its market and how the U.S. compares with China's other major trading partners. Third, U.S. competitiveness against China as an exporter rapidly moving up the technology ladder in the world market will be clearer. Fourth, clarification of China's world trade volume is critical to determining China's role in the new World Trade Organization (successor to the General Agreement on Tariffs and Trade or GATT).

There are numerous reasons why the trade statistics of two countries differ. In fact, it would be unusual for them to be the same. It is common for the U.S. to experience a discrepancy between its trade statistics and those of its trading partner (Table 1). However, the gap between U.S. and Chinese statistics on bilateral trade has grown to the point where in 1992 it represented 56 percent of total bilateral trade based on U.S. statistics (or 106 percent based on Chinese statistics).

Table 1. Differences in United States and Partner Country Trade Statistics

Country	Difference in U.S. trade deficit/surplus reported by the two countries (in billion US$)	Difference as percent of total bilateral trade (U.S. statistics)	Difference as percent of total bilateral trade (partner statistics)
Australia (1991)	0.760	17.6	15.0
Japan (1990)	3.151	7.7	8.3
South Korea (1991)	1.848	5.7	4.9
EC (1989)	5.953	3.5	3.4
China (1992)	18.615	56	106

Sources: various press releases from U.S. Department of Commerce, Bureau of the Census, Foreign Trade Division CB-94-36, CB-93-115, CB-93-134, CB-92-101.

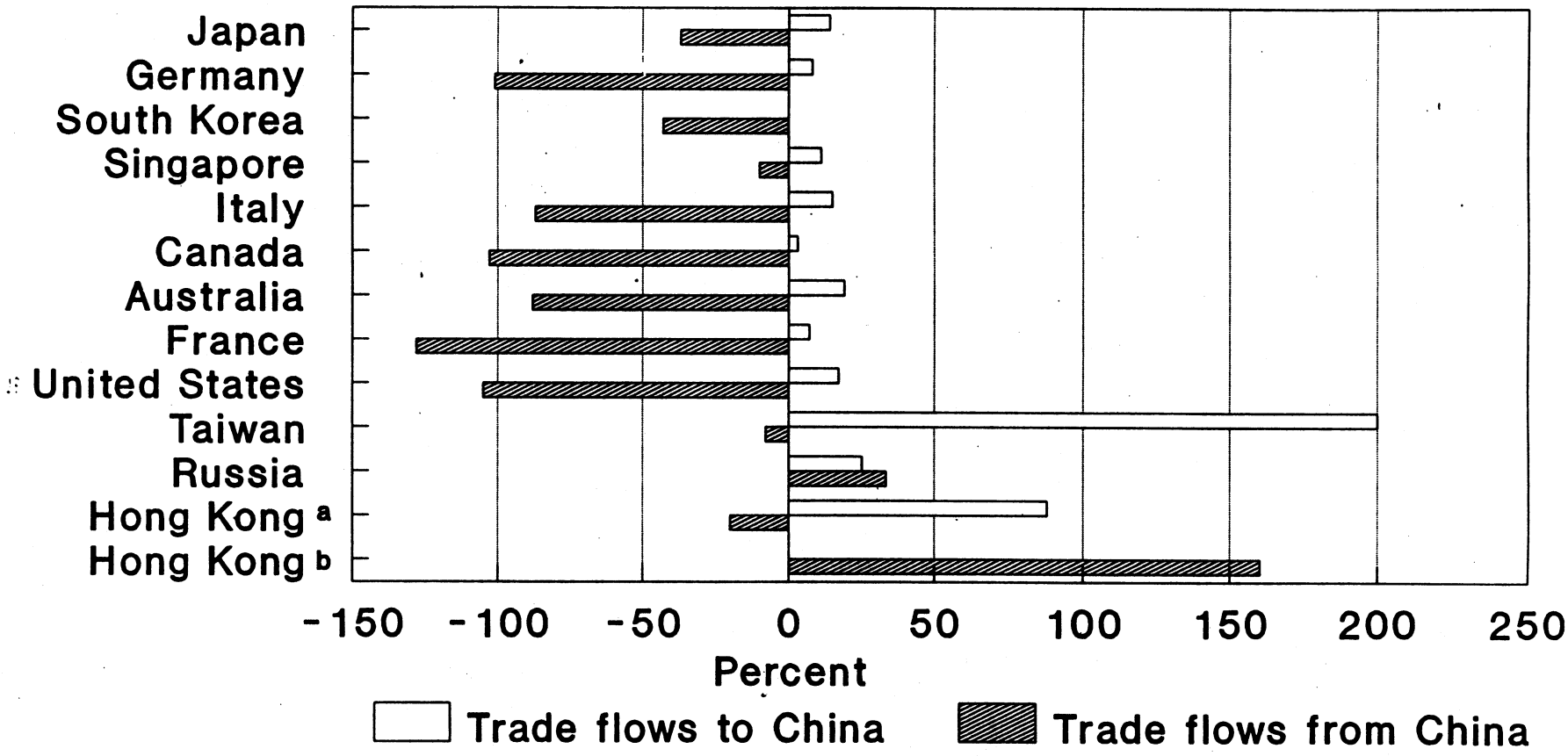
The United States is not the only country with substantial differences between its published trade statistics and those published by China. A number of China's other major trading partners also face large discrepancies in trade statistics (Figure 1). The countries shown in Figure 1 were China's top twelve trading partners in 1992 and represented over 80 percent of total trade according to Chinese statistics. This common problem has led to several bilateral and multilateral trade reconciliation attempts. China and the European Community have undertaken two studies of the discrepancies in trade statistics, the first in 1988 and the most recent in 1993. The Working Group on the accession of China to GATT established an Informal Group of Experts on Export Statistics to analyze discrepancies in published trade flows. The Foreign Trade Division, U.S. Bureau of the Census is in the midst of a trade reconciliation exercise with China's Ministry of Foreign Trade and Economic Cooperation.

The purpose of this study is to develop a methodology to reconcile China's trade statistics with those of the United States and China's other trading partners. The first step in devising such a methodology is to identify the sources and causes of the discrepancy. A careful examination of U.S. and Chinese trade procedures and definitions reveals a number of differences that can contribute to the discrepancy. There also are causes external to the trade statistics compilation systems of the two countries that have the potential to lead to gaps. After identifying the sources and causes, a determination is made as to which are likely to be major contributors to the discrepancy. We attempt to quantify those sources of discrepancy for which adequate information is available, using 1992 as the base. Many of the procedural and definitional differences result in only negligible divergences. However, it is found that two of the largest sources of discrepancy, transit trade markup and partner country attribution, are linked to the major role played by Hong Kong in China's indirect trade.

Based on the identification and quantification of the sources of discrepancy, separate algorithms are developed that adjust U.S. import and export trade statistics for the discrepancies. After the adjustments are made, the remaining gap is comparable to that experienced between the U.S. and other trading partners. For trade flows from China to the United States, China's recording of exports to the U.S. as exports to a third country, primarily Hong Kong is the largest source of discrepancy, accounting for up to 80 percent of the gap between U.S. and Chinese statistics. The transit trade markup on Chinese goods shipped through Hong Kong accounts for roughly US$ 3 billion of the nearly US$ 19 billion gap. The gap is smaller in absolute and percentage terms for trade flows from the U.S. to China. The recording of exports to China shipped through Hong Kong as exports to Hong Kong by the U.S. is the major source of discrepancy along with the FOB-CIF valuation difference.

Next, we apply what is learned in the detailed exercise on U.S.-China trade statistics and what is gleaned from a closer examination of the role of Hong Kong in indirect trade to develop algorithms for estimating China's adjusted global imports and exports. The identified sources of discrepancy indicate China overstates reported imports slightly. For China's reported global exports to be consistent with partner country statistics, some Chinese exports must not be recorded as domestic imports by the partner country.

Figure 1. Percentage Discrepancies Between China and Trading Partner Statistics, 1992



a Hong Kong domestic exports to China and Hong Kong total imports from China.

b Estimated Hong Kong retained imports from China.

$$\text{Percentage difference} = \left(\frac{\text{China's Reported X} - \text{Trading Partner's Reported M}}{\text{China's Reported X} + \text{Trading Partner's Reported M}}\right)$$

II. SOURCES OF DISCREPANCIES IN TRADE STATISTICS

The purpose of this section is to identify major sources of discrepancy and determine what adjustments need to be made. The focus in this section is on U.S.-China trade and the differences in these two countries bilateral trade statistics. We begin with U.S.-China bilateral trade because the most detailed information is available on the trading systems of these two countries. However, we expect many of the sources of discrepancies discussed to be common to China's other trading partners as well.[1] The various sources can generally be categorized as: 1) arising from differences in definition and procedures regarding the compilation of international trade statistics, and 2) external -- arising from causes beyond the control of the trading systems in the two countries. Specific sources of discrepancies are discussed in more detail below.

Differences in Definitions, Concepts, and Methodology

Both countries state that their statistical systems follow the United Nations guidelines for merchandise trade data and both rely on customs declarations for the source of their trade data. Nevertheless, in some instances definitional, conceptual, and methodological differences remain between import and export data for the two countries. Similarities and differences in trade statistics definitions and procedures are summarized in Table 2.

Valuation China values exports on a FOB basis (the selling price of the goods including expenses accrued to the point where the goods are loaded on board the exporting carrier). The United States, on the other hand, values exports on a FAS (free alongside ship) basis. FAS differs from FOB in that costs for loading the exporting carrier are not included. China values imports on a CIF basis (the purchase price plus freight, insurance, and all other expenses incidental to the sale and delivery of the goods). The U.S. records imports on a CIF basis and a customs value basis. The customs import value is the price actually paid for the merchandise when it was sold for exportation to the U.S., excluding U.S. import duties, freight, insurance and other charges incurred in bringing the merchandise to the United States. This value approximates a FAS import value and hereafter is referred to as the FAS value.

Consequently, for trade flows from China to the U.S., China records the FOB value of the good and the U.S. records the CIF and FAS values when it arrives. For imports, the U.S. also collects data on the cost of freight, insurance, and other expenses incurred in bringing the merchandise from alongside the carrier in the exporting country to alongside the carrier at the first port of entry in the U.S. These data provide an approximation of the difference between the CIF and FOB values.

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[1] In many instances U.S. bilateral trade statistics with other trading partners are affected by these same sources of discrepancies.

Table 2. Comparison of U.S. and China Trade Statistical Procedures and Definitions

Procedure or Definition	China	United States
Valuation of imports	CIF	CIF and FAS
Valuation of exports	FOB	FAS
Partner country for imports	Country of origin	Country of origin
Partner country for exports	Country of consumption (final destination)	Country of consumption (final destination)
System of trade	Special trade	General trade (special trade also available for imports)
Low-value threshold for imports	US$30	US$1250 except for quota items, principally textiles, which is US$250
Low-value threshold for exports	US$30	US$2500
Classification system	Harmonized System - 8 (6+2)	Harmonized System - 10 (6+4)
Trade data source	Customs declaration	Customs declaration
Geographic definition of U.S. for trade	Excludes Puerto Rico and U.S. Virgin Islands	Includes Puerto Rico and U.S. Virgin Islands
Geographic definition of China for trade	Excludes Taiwan, Hong Kong, and Macao	Excludes Taiwan, Hong Kong, and Macao
Value of related party transactions	Value at arms-length transaction value	Value at arms-length transaction value
Non-commercial transactions	Included at transaction value	Included at transaction value
Charitable contributions	Included at transaction value	Included at transaction value

When it leaves China	$FOB = C + L_c$
When it arrives in the U.S.	$CIF = C + IF + L_c + UL_{us}$
U.S. data on charges	$IF + L_c + UL_{us}$
Difference	$CIF - FOB = IF + UL_{us}$

where C is the cost of the merchandise, IF is the cost of insurance and freight, L_c is the cost of loading the merchandise on the carrier in China, and UL_{us} is the cost of unloading the merchandise in the U.S.

Therefore, U.S. data on charges overestimate the difference between FOB and CIF values by the cost of loading the exporting carrier. In a preliminary exercise the U.S. Bureau of the Census, Foreign Trade Division estimates charges represented 6.3 percent of the CIF value of U.S. imports from China in 1992 (Foreign Trade Division spreadsheet 1994).

Conversely, for trade flows from the U.S. to China, the U.S. records the FAS value of the good and China records the CIF value of the same good when it clears customs.

When it leaves the U.S.	$FAS = C$
When it arrives in China	$CIF = C + IF + L_{us} + UL_c$
Difference	$CIF - FAS = IF + L_{us} + UL_c$

where L_{us} is the cost of loading the merchandise on the carrier in the United States and UL_c is the cost of unloading the merchandise in China. Assuming charges for U.S. exports to China are the same as imports from China for the same type of merchandise, an estimate can be derived of the difference between the CIF and FAS values for U.S. exports. The Foreign Trade Division of the U.S. Bureau of the Census compiles disaggregated data on insurance and freight charges for imports down to the section level. These rates, weighted by China's reported import values of U.S. exports, indicate an average of 7.1 percent of the CIF value.

Chinese trade corporations estimate that the cost of freight and insurance for China's imports from the European Community (EC) averaged about 10 percent of the CIF value of imports in the mid-1980s (GACPRC and SOEC 1988, p.6). EC member countries estimate an average CIF-FOB difference of 7-10 percent of the CIF import values for the same time period (GACPRC and SOEC 1988, p.6). In the 1988 and 1993 EC-China trade reconciliation exercises a difference of 10 percent was assumed for CIF and FOB values. Jia (1993) cites a general estimate used by international trade specialists of the CIF value being 9 percent higher than the FOB value.

The United Nations recommends using the FOB method for exports and recording import values on both a FOB basis and a CIF basis. However, not all countries record import values on a FOB basis. Differences in valuing imports and exports, therefore, are common across most trading partners in the world.

Partner country attribution Both the United States and China follow United Nations guidelines in reporting imports on a country of origin basis. The country of origin is defined as the country in which the merchandise was grown, mined or manufactured. Determining the

country of origin is not always straightforward and disagreements can arise.[2] Merchandise may undergo processing in several countries before being shipped to its final destination. According to an official of China's Customs Administration, if a good has undergone substantial transformation in a processing country, then it is classified as an import from the processing country (personal interview November 2, 1993). Substantial transformation is considered to have taken place if the processing causes the good to change tariff category or the value added exceeds 30 percent. The good then is classified as an import from the processing country. These procedures are in accordance with the Kyoto Convention which provides international guidelines on the determination of the origin of goods. In addition to the use of a change of tariff heading or an ad valorem percentage, countries may refer to a list of manufacturing or processing operations to determine if substantial transformation has occurred. In the United States, U.S. Customs determines, on a case-by-case basis, whether a substantial transformation has occurred. The availability of multiple criteria may result in disagreements between countries as to the country of origin. The recently completed Uruguay Round of the General Agreement on Tariffs and Trade calls for the rules of origin to become more specific and uniform across countries. If harmonization is implemented, differences among countries should be reduced.

For exports both countries define the country of consumption (final destination) as the partner country.[3] However, a country may not know the final destination of its exports, especially for goods that are shipped through other countries. A very large percentage of China's exports are shipped, mostly through Hong Kong and to a lesser extent through other countries, such as Singapore. Over 60 percent of China's exports to the United States pass through Hong Kong. Hong Kong transit trade is far greater for flows from China to the U.S. (US$ 18.084 billion in 1992) as compared to flows from the U.S. to China (US$ 2.349 billion in 1992) (Lardy 1994).[4]

For U.S. trade statistics the country of shipment is available in addition to the country of origin. The value of U.S. imports from China on a country of shipment basis (excludes Chinese goods exported by other countries, such as Hong Kong, and includes third country goods imported from China) was US$ 10.932 billion (FOB basis) in 1992. If all of the goods with a country of shipment of China are of China origin, that leaves US$ 14.796 billion (FOB basis) of a total US$ 25.727 billion (FOB basis) in Chinese goods being indirectly traded to the United States. These statistics confirm that a large volume of China's exports to the U.S. are shipped through a third country.

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[2] The present discussion excludes false declarations of origin which are dealt with in a later section of the report.

[3] The country of consumption or final destination refers to the country or region in which the goods are to be consumed, utilized, or further processed or manufactured. When the country of final destination is not known at the time of exportation, the exporter declares the country of last shipment (consignment).

[4] These statistics are from Hong Kong Census and Statistics Department.

Prior to 1993 the majority of Chinese exports shipped through Hong Kong were recorded by China as exports to Hong Kong (personal interview November 2, 1993). The United States, however, recorded these imports as having China as a country of origin. The two EC-China studies also found the same situation for Chinese exports to Germany, the only country for which detailed indirect trade figures were available. This difference in partner country attribution is the single largest contributor to the trade statistics discrepancy. Quantifying the effect of this difference, therefore, is important and is deferred to Section III.

To a lesser extent U.S. exports to China also are shipped through Hong Kong, and in some instances, the country of consignment is recorded as Hong Kong and not China. Hong Kong reexports of U.S. goods to China include U.S. exports recorded by the U.S. as exports to China that are being shipped through Hong Kong and exports recorded by the U.S. as exports to Hong Kong. It is impossible to determine the amount of overlap without resorting to an examination of individual transactions. If Hong Kong reexports of U.S. goods to China (less any reexport margin) exceed reported U.S. exports to China, then it is almost certain shipments through Hong Kong also contribute to discrepancies in the westward trade flow between these two countries.

Two examples serve to illustrate the underreporting of U.S. exports to China and the overreporting of exports to Hong Kong. China has long maintained a ban on U.S. fruit, except for small quantities imported by joint venture hotels catering to foreigners. In spite of the historical ban, U.S. fruit has been widely available in China's urban markets for the past several years. For example, U.S. grapes, Sunkist oranges, and Washington State apples are common in the southern province of Guangdong. U.S. exports of fresh fruit to China, however, have been minimal and declining in recent years according to U.S. statistics (Figure 2). But at the same time, U.S. fresh fruit exports to Hong Kong rose and reached a record US$ 131.5 million in 1992. According to Hong Kong statistics, traders then reexport a portion of U.S. fruit from Hong Kong to China. The shipment of U.S. fruit through Hong Kong, whether smuggled or official, now accounts for the majority of U.S. fruit consumed in China.

A second example involves the reexport of a large volume of U.S. cigarettes from Hong Kong to China. Smuggling may partially explain why U.S. exports and Hong Kong reexports of tobacco and tobacco products (dominated by cigarettes) exceeded China's reported total imports in 1989 and 1990 (Figure 3). For example, in 1990 according to U.S. trade statistics, the U.S. exported US$ 7.5 million of tobacco and tobacco products to China. In that same year, Hong Kong's Census and Statistics Department reported US$ 146.8 million reexports of U.S. tobacco and tobacco products to China. China's trade statistics reflect total imports of tobacco and tobacco products from all countries at only US$ 116.6 million. One explanation is that a portion of the tobacco products (primarily cigarettes) that cleared Hong Kong customs never cleared China's customs.[5]

Virtually all countries experience indirect trade or shipment through a third country for a portion of their imports and exports, resulting in minor partner country attribution

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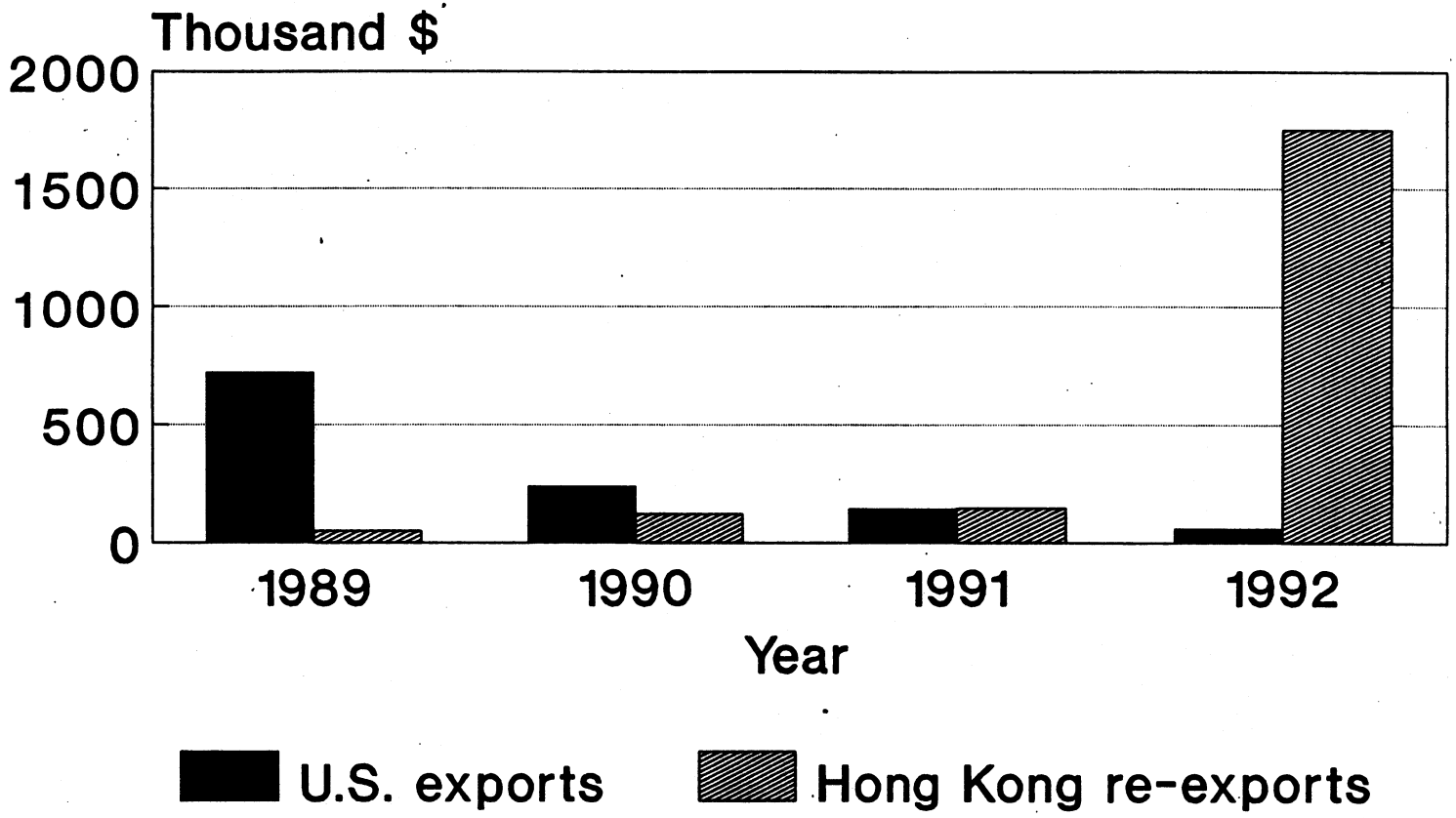
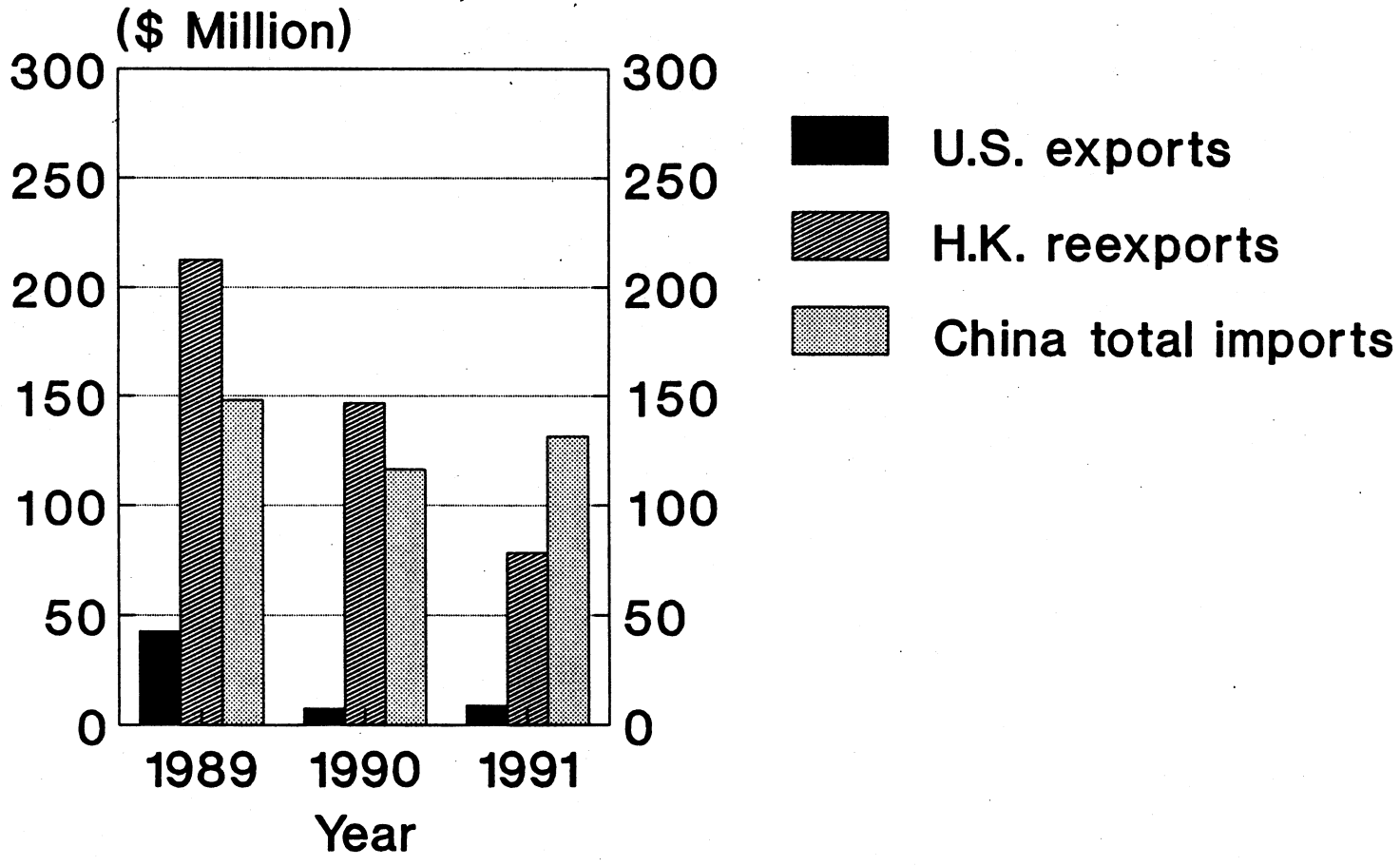
[5] Chinese customs reports that cigarettes are one of the top goods smuggled into China. Smuggling is discussed in more detail later.

Figure 2. U.S. Exports and Hong Kong Re-exports of U.S. Fresh Fruit to China, 1989-1992



Data Sources: U.S. Bureau of the Census and Hong Kong Customs.

Figure 3. Tobacco and Tobacco Products: U.S. Exports and Hong Kong Reexports to China and China Total Imports, 1989-1991



Data Sources: U.S. Bureau of the Census; China's Customs Statistics; Hong Kong Customs.

differences. However, the unique and large role Hong Kong plays in China's foreign trade results in an extraordinarily large volume of indirect trade for China exports and imports, especially exports. The China-Hong Kong relationship leads to partner country attribution differences of sizeable magnitude.

System of trade China compiles trade statistics according to the special trade system which includes all merchandise passing through Chinese customs boundaries. Special trade statistics are based upon the clearance of goods through customs for home use. The United States, on the other hand, compiles general trade statistics based upon the movement of goods into and out of the national territory. These statistics reflect all trade crossing U.S. boundaries. The U.S. compiles export statistics only on a general trade basis, but records both general and "consumption" or special trade statistics for imports.

Because China records trade according to the special trade system, goods exported from the United States that enter only bonded zones in China will be recorded by the U.S. as an export to China but will never appear in China's import statistics. Similarly goods that are processed in China's bonded zones and then reexported will not be recorded in China's exports but would be recorded in U.S. imports when they reach the United States. The major difference between general and special trade imports is in the treatment of goods entering a bonded zone or a bonded customs warehouse. General import statistics capture such goods when they enter the zone or warehouse. Special trade statistics will only include these goods when and if they are withdrawn for domestic consumption. International goods that stay within bonded zones never enter China's trade statistics.

Since 1990 China has established 14 bonded zones in coastal cities and cities along the Yangtze River. The largest bonded zone covers 10 square kilometers, Waigaoqiao in Shanghai, and the smallest only 0.2 square kilometers, Shatoujiao in Shenzhen (Li 1993).[6] Registered Chinese and foreign enterprises in these closed zones may engage in international entrepot trade, export processing, and warehousing. Because bonded zones are a recent phenomenon in China, most were constructed in the early 1990s and many became operational only in 1993, their effect on the discrepancy in trade statistics is probably minor in 1992. No published statistics are available on the value of bonded zone trade in 1992. Other U.S. trading partners, such as the EC, also use the special trade system and exclude trade into and out of bonded warehouses. This difference in compiling trade statistics leads to discrepancies in U.S.-EC bilateral statistics.

Low-value threshold For both imports and exports China does not record transactions with values less than US$ 30. The United States fully compiles export statistics on transactions valued over US$ 2500. The total values of transactions valued under US$ 2500 are estimated for individual countries, but these estimates appear in a separate category and are excluded from commodity totals. The U.S. fully compiles import statistics on transactions valued over US$ 1250, except for quota items, such as textile articles, which are reported as formal entries when valued over US$ 250. Again, the total values of transactions valued under US$ 1250 (and under US$ 250 for textile articles) are estimated for individual

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[6] Other bonded zones have been established in Tianjin, a second in Shenzhen, Dalian, Guangzhou, Zhangjiagang, Xiamen, Haikou, Qingdao, Ningbo, Fuzhou, and Shantou.

countries, appear in a special category and are excluded from individual commodities. The U.S. estimates that low-valued transactions account for slightly less than 4 percent of total imports (U.S. Bureau of the Census 1990).

Valuation of processed goods Goods exported from the United States for further processing or assembly abroad and then returned to the United States are reflected in U.S. export and import statistics. The value of components and raw materials shipped abroad for further processing is included in export statistics; and the full value of the returned finished products, in import statistics.[7] Similarly, China states that imports for processing and the finished exported goods are recorded at their total value in trade statistics.[8] The import and export value of commodities involved in these processing transactions represented 41 percent of China's total 1993 trade value.

Classification system Both countries currently use the Harmonized Commodity Description and Coding System (HS) for classifying merchandise traded. China adopted this system at the beginning of 1992, and the United States has been using the Harmonized System since 1989. The headings in the classification system are uniform to the six digit level. China then uses two additional digits as national subheadings for tariff, statistical, or administrative purposes. The U.S. adds four additional digits, two for U.S. legal subdivisions of the international system and two for statistical subdivisions.

There is always the possibility that the two countries may classify the same transaction differently. Differences in classifying an individual transaction will result in discrepancies between the two countries trade statistics for specific subheadings; however, it will not cause total trade statistics to differ.

Geographic definition of partner country China uses a geographic definition of the United States that excludes Puerto Rico and the U.S. Virgin Islands while the U.S. includes Puerto Rico and U.S. Virgin Islands trade in its statistics. This difference in definition results in discrepancies between the two countries trade statistics. China's reported trade with Puerto Rico in 1992 was only US$ 5.6 million (Table 3). China does not publish separate statistics on trade with the U.S. Virgin Islands because the trade volume is so small. The U.S. is unable to separate out trade statistics for Puerto Rico and the U.S. Virgin Islands. The closest approximation is statistics for the customs district that includes Puerto Rico and the customs district for the U.S. Virgin Islands (Table 4). U.S. customs district statistics on trade with China through Puerto Rico are substantially higher than China's reported statistics. Nevertheless, U.S. officials concur that China's trade with the two regions is minor. Both countries exclude Taiwan, Hong Kong, and Macao from their trade statistics for China. Generally, other U.S. trading partners also exclude Puerto Rico and U.S. Virgin Islands trade from their statistics on trade with the United States.

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[7] However, duty is only assessed upon the value of the processing outside the United States.

[8] This section refers to processing outside of the bonded zones.

Table 3. China's Trade with Puerto Rico		
	1992 million US$	1993 million US$
Exports to Puerto Rico	5.589	7.960
Imports from Puerto Rico	0.264	0.100
Source: General Administration of Customs of the People's Republic of China 1993b, p. 4; 1994, p.6.		

Table 4. U.S.-China Trade Through Puerto Rico and U.S. Virgin Islands Customs Districts, 1992 and 1993		
	1992 million US$	1993 million US$
Puerto Rico Customs District		
Imports from China	55.3	29.4
Exports to China	13.2	7.0
U.S. Virgin Islands Customs District		
Imports from China	3.2	5.7
Exports to China	0	2.4
Source: U.S. Bureau of the Census, Foreign Trade Division		

Coverage China and the U.S. differ in the items they include in their trade statistics (Table 5). First, China includes products mined from the seabed in international waters while the United States does not. China's inclusion of this product would not affect bilateral trade statistics as long as the origin is international waters and not attributed to a particular country. The United States includes fish and salvage landed from foreign vessels in national ports and China does not. It is expected that this value is relatively small.

Barter trade Both China and the United States include barter trade in their trade statistics.

Overseas repairs China's import and export statistics do not include goods sent overseas for repairs. The U.S. includes this category of trade but records only the value of the replaced parts and other value added from the repair.

Goods with high service content U.S. regulations require that high service content merchandise, such as blueprints and software, be reported at the value of the underlying media only. In practice, however, commercial software is usually reported at its commercial

Table 5. Comparison of U.S. and China Coverage in Trade Statistics		
	China	United States
Entries into bonded warehouses	no	yes (general trade statistics, not special trade)
Warehouse withdrawals for home use	yes	included in special trade
Barter trade	yes	yes
Goods with high service content (blueprints, etc.)	no (value of media only)	No (value of media only except for commercial software)
Improvement and repair	no	yes
Products mined from the seabed in international waters	yes	no
Exports for outward processing and later reimport	yes	yes
Imports for inward processing and later reexport	yes (except for bonded zones)	yes
Goods on lease for more than 1 year	yes	yes
Foreign aid	yes	yes
Non-monetary gold	yes	yes
Trade on government account	yes	yes
Military goods	yes	yes
Electricity, gas, and water	yes	yes
Postal trade	yes	yes
Local border trade	yes	yes
Ships and aircraft involved in international trade	yes	yes

Table 5. Comparison of U.S. and China Coverage in Trade Statistics (continued)		
Temporary imports or exports	no	no
Ships and aircraft stores or bunkers	no	no
Intransits	no	no
Goods on lease less than 1 year	no	no
Travellers' personal effects	no	no
Goods consigned to diplomatic missions	no	no
Confiscated contraband and other illegal trade	no	no
Fish and salvage sold abroad or to foreign ships from national vessels	no	no
Fish and salvage landed from foreign vessels in national ports	no	yes
Fish and salvage acquired on the high seas from foreign vessels	no	no
Monetary gold and silver	no	no
Monetary coins in current circulation	no	no
Goods and equipment delivered to and from installations in international waters	no	no

value while custom software is recorded as the value of the media. China Customs records commercial software packages only by the value of the media (diskette).

The United States does not follow all United Nations recommendations on the recording of trade and hence encounters occasional differences with most of its trading partners in the coverage of goods.

External Causes of Trade Discrepancies

Even if two countries follow exactly the same procedures in compiling their trade statistics, discrepancies still will arise due to other factors. In some cases, the countries may be able to reduce the effect of these external factors through appropriate policies. In other instances, the differences are unavoidable.

Change in value in transit The value of the merchandise may increase or decrease after it leaves the exporting country and before it arrives in the importing country. If the goods being shipped have not already been paid for or a price locked in, the reported export and import values may differ. It is not unusual for certain types of products to be stored in warehouses in third countries for an extended period of time before being withdrawn and sent to the final consumer. During the storage period, the prices may fluctuate. Even if the price is already determined, the importer and exporter may assign different values to the same transaction when making their declarations to customs. A detailed transaction-by-transaction review would be necessary to determine the extent to which this cause is contributing to discrepancies in bilateral trade statistics.

Changes in the exchange rate between two countries also may affect the recorded value of a traded good. The U.S. experiences fluctuations in the exchange rate between the dollar and other major currencies that affect the value of trade as recorded by the U.S. and other trading partners. If all trade transactions between China and the U.S. are not denominated and recorded in US dollars, then appreciation or depreciation of the yuan will result in different values being recorded for imports and exports. Prior to 1994 China executed conversion between the yuan and the US dollar for trade accounts at the official exchange rate.[9] China converts and records in yuan the value of imports, regardless of currency denomination, and converts and records in US dollars the value of exports when the goods clear Customs (General Administration of Customs of the People's Republic of China 1993c, p.II).[10] The exchange rates used are the US dollar and yuan rate and cross rates for other major currencies published daily by the State Foreign Currency Control Bureau. The value of imports also are converted to US dollars. The conversion occurs at least monthly if not at the time the transaction is recorded in yuan.

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[9] The exchange rate averaged 4.78, 5.32, 5.51, and 5.80 yuan to the dollar in 1990, 1991, 1992, and 1993, respectively.

[10] Imports may take up to three weeks after their arrival to clear Customs (U.S. Bureau of the Census, Foreign Trade Division, trip report).

To assess the impact of the devaluation of the yuan on U.S.-China bilateral trade statistics one would need to know the prevailing practice for denominating Chinese exports and imports. One would also need to know the flow of trade (exports and imports separately) over the year. If imports and exports were denominated in yuan, the devaluation of China's currency over time would lead to a discrepancy opposite to the existing one. However, from the beginning to the end of 1992, under a managed float with no sharp devaluations, the devaluation totals less than 6 percent. Owing to the gradual, continual devaluation of China's currency, China's trade with the United States is more likely to be denominated in US dollars. Therefore, changes in the exchange rate are unlikely to have had a major impact on the trade discrepancy in 1992. Similarly for China's other trading partners, the US dollar or another major international currency is likely to dominate trade. While the yuan strengthened against the currencies of Australia, Canada, and Italy, it fell slightly relative to the currencies of China's other major trading partners (Table 6).

Table 6. Devaluation of Chinese Yuan Vis a Vis Trading Partner Currencies in 1992

Country	Devaluation from 1/1/92-12/31/92 (percent)
Australia	-4.3
Canada	-2.0
Germany	1.2
France	1.4
Italy	-13.9
Japan	7.6
Singapore	5.4
Hong Kong	7.7
United States	5.8

Note: Negative values represent appreciation of Chinese yuan vis a vis trading partner's currency.
Source: China Daily, various issues.

The value also can change in transit if the merchandise undergoes further processing or packaging in a third country. This reexport margin or transit trade markup includes the profits and costs of shipment, storage, processing (not substantial transformation), and reselling. For much of U.S.-China trade the value of trade is raised as it passes through Hong Kong. According to surveys of Hong Kong companies conducted by the Research Department of the Hong Kong Development Council, the gross profit margin as a percentage of the FOB export price averaged 16 percent for reexports of China goods through Hong Kong in 1988

and 1991 (Hong Kong Trade Development Council 1991, pp. 7-8).[11] The Hong Kong Census and Statistics Department reported to the GATT Informal Group of Experts on Export Statistics that the reexport margin varied from 13 percent in 1988 to 25 percent in 1993. A 1991 survey indicates a 17 percent reexport margin on goods shipped through Hong Kong from countries outside Asia (Hong Kong Trade Development Council 1991). While trade between the U.S. and other U.S. trading partners are subject to shipment through a third country as well, the unique role of Hong Kong in China trade makes this source of discrepancy larger in the case of China than it is for other U.S. trading partners.

Change in destination after export While in route the destination of the merchandise may change, or at the time of exporting the final destination may be unknown. China frequently faces this situation with its exports through Hong Kong. Hong Kong middlemen are involved in the production and marketing of many light manufactured goods in southern China, especially Guangdong province. These toys, garments, bags, shoes, and other products are sold in Europe, Canada, the United States, and other international markets. They are shipped first to Hong Kong where they may undergo some final processing or packaging and then proceed to Europe, Canada, the United States, or elsewhere.[12] When a particular shipment leaves China for Hong Kong, it may not be known where it will eventually be shipped to next (Han, 1994 and Jia, 1993). In these situations, the exporter can only declare Hong Kong to be the destination. It will not be possible in every instance to know the true destination at the time of exportation. For example, in the recent past, China has shipped oil to Japan and stored it in warehouses and only later sold it to consuming countries. Consequently, when the oil left China, it was recorded as an export to Japan. If the U.S. later imported some of this oil, the U.S. would record it as an import from China, the country of origin. Having goods sit in warehouses in third countries is not unique to China trade. However, having goods change final destination as they pass through a third country is more of a problem for China trade through Hong Kong.

Smuggling Smuggling or any other act which seeks to avoid the declaration of trade to customs will result in statistical discrepancies.[13] China's Customs seized a record 2.35 billion yuan in smuggled goods in 1993, a nearly 80 percent increase over 1992 (Liang

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[11] Gross profit is defined as sales less direct cost of the goods sold. Gross profit includes indirect costs such as marketing and product development expenses, banking charges, insurance costs, transportation and storage costs, other related handling fees and reexporter's own profit margin. For reexports through Hong Kong, most of these expenses are incurred in Hong Kong and the reexport margin is earned by Hong Kong companies. This reexport gross profit margin, therefore, largely reflects the value-added of reexport trade to the Hong Kong economy.

[12] Hong Kong manufacturers, engaged in production in China, reexported through Hong Kong 86 percent of their products. The remainder, primarily goods manufactured in northern China such as fur, were shipped directly from China.

[13] Only if the merchandise is both smuggled out of and into the two trading countries will no discrepancy arise because the transaction does not appear in either country's trade statistics.

1994a).[14] In 1992 the value of recovered smuggled goods was double that of 1991 (Wu 1993). According to government statistics, from 1981 to February 1993, more than 10,000 cases of smuggling at sea were detected, involving goods worth 1 billion yuan (Xie 1993).

In the past smuggling was concentrated in southeast coastal areas (Hainan, Guangdong, and Fujian). In recent years, it has spread all the way up the coast to Shandong and Dalian. Both the traditional smuggling areas and new areas have reported large increases in smuggling. Jilin experienced a 200 percent increase in smuggling cases in 1992 (Silk 1994). The Huanggang area of Shenzhen, the largest highway port in Asia, reported more than 1400 smuggling cases uncovered in the first 11 months of 1993, 70 percent higher than 1992. The value of the goods confiscated exceeded 110 million yuan (Xinhua 1994). The volume of smuggling along land borders also has increased. It was reported that in Tibet a group used border passes to smuggle gold, cultural relics, rare wild animal skins, fur, and bones (Xizang Ribao 1994). In 1992 Yunnan reported as many smuggling cases as Fujian (900), double the number in the previous year (Silk 1994). If officials are becoming more astute at uncovering instances of smuggling, then actual growth in smuggling may not be as alarming.

The most popular goods for smuggling are those whose importation is limited by the state and those subject to high import tariffs. Common smuggled items include cars, cigarettes, motorcycles, color television sets, air conditioners, steel products, and polyester fibers. In the first quarter of 1993, cars were declared the number one smuggled good and cigarettes were second (Xie 1993). A total of 36,000 cartons of cigarettes were seized in the first quarter of 1993, including 9000 cartons with a value of 19 million yuan discovered on a Honduran registered ship by the Zhanjiang Customs Department (Xie 1993). Silk (1994) reports that recovered contraband in 1993 included 1.7 tons of gold, 35,000 vehicles, 10,000 video recorders, and 100,000 tons of steel.

Smuggling contributes to discrepancies between China's trade statistics and those of various trading partners. According to South Korea Customs, between January and April 1993, South Korea exported 26,688 cars to China; however, China Customs statistics show only 166 cars imported from South Korea (Wu 1993). Hong Kong Customs statistics show 49,000 cars reexported to China in 1992; however, China Customs show only 22,000 cars imported from Hong Kong in the same period (Wu 1993).[15] According to Japanese statistics, Japan exported 1.51 million color television sets and 1.07 million video recorders to China; however, Chinese statistics show only 370,000 color television sets and 560,000 video recorders imported. For these two consumer durables this represents a loss in import tariffs of 4.86 billion yuan (Wu 1993). These examples all should result in an understatement of imports in China's trade statistics.

About 35 percent of the major smuggling cases uncovered in the first quarter of 1994 involved the use of fake customs certificates, seals, and customs officers' signatures (Xinhua

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[14] The exchange rate averaged 5.8 yuan to the dollar in 1993.

[15] China may have correctly attributed the other cars to the appropriate countries of origin.

1994). Fake documents assisted Guangxi officials in smuggling 798 cars in 1993 (Hong 1993).

Chinese exports may be understated through false declarations of country of origin. U.S. textile manufacturers estimate illegal shipments of Chinese products through other countries to the United States at US$ 2 billion a year (Associated Press 1994). The U.S. Trade Representative Mickey Kantor stated that U.S. Customs Service officers have found Chinese goods relabeled in at least 25 other nations, including Honduras, Panama, and Hong Kong (Associated Press 1994). One example alleges textiles were shipped through Hong Kong to the U.S. containing fake certificates of origin saying the goods were made in Mongolia when they were actually made in Guangxi (U.S. Department of Commerce 1994a). When goods with false declarations of origin are discovered, U.S. Customs either denies the goods entry or charges the goods against any existing quotas for China. When these goods left China, the third country was probably the declared destination and not the United States.

Strict foreign exchange controls in China reportedly encourage some enterprises, especially state-owned ones, to underreport the value of their exports.[16] With support from overseas trade brokers, these enterprises can deposit the difference between the actual sales earnings of the exports and the amount reported to China Customs in overseas banks.[17] The enterprise then has access to foreign exchange for future imports, foreign investment, or personal use without being subject to official controls.

Smuggling is not unique to China. U.S. tax law also may encourage U.S. firms to under-report exports (reduce the firm's taxable revenue) and exaggerate imports (increase the firm's deductible costs). Studies indicate exporters under-report sales by as much as 5 percent (Berthelsen 1994). On the other hand, importers may declare a lower import price to avoid import duties. Foreign businessmen and traders report that duty rates and dutiable values vary widely across China's customs ports. One trader reported that with the requisite bribe the dutiable value of imports could be reduced by as much as 50 percent (Business China 1991, p.75).

Time lag There almost always is a time lag between the registration of a good as an export and its registration as an import. The average transport time is approximately one month in the case of trade between the United States and China. Transport time can be considerably shorter depending on the means of transport used and transport time can be extended if the port of entry is particularly congested. For China, imports and exports are recorded on the date when the goods are cleared through Customs (General Administration of Customs of the People's Republic of China 1993b, p.II). For the United States, the date

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[16] State-owned enterprises accounted for a maximum of 60 percent of China's exports in the early 1990s (Prime 1994).

[17] Shang and Wan (1993, p.1) argue this is one method by which "far more capital left China illegally (mainly to Hong Kong) than was invested in China from overseas" in 1992/93. Actual foreign investment in China in 1993 totaled US$ 25.8 billion according to MOFTEC (U.S. Department of Commerce 1994b).

of departure is used in recording exports.[18] The date on which the vessel transporting the merchandise from the foreign country arrives within the limits of the U.S. with the intent to unload is considered the import date (U.S. Bureau of the Census 1990).

The shorter the time horizon over which trade statistics are compared, the larger the discrepancy is likely to be. Even when comparing U.S.-China trade statistics over a calendar year, a sizeable discrepancy is likely for several reasons. First, there tends to be a surge in orders for imports placed by Chinese enterprises and officials as the end of the year approaches. Second, China's trade volume is growing rapidly over time and this contributes to a time lag discrepancy. The U.S. encounters a time lag discrepancy with all trading partners to a certain extent.

[18] The date of customs clearance is used if the date of departure is not known.

III. SUMMARY OF EFFECT ON U.S.-CHINA TRADE STATISTICS

In the previous section, numerous sources of discrepancy were described and illustrations provided. This section will summarize the differences in U.S. and Chinese reported trade statistics, identify the impact of the various sources on the discrepancy, and develop an algorithm to adjust U.S. trade statistics for the quantifiable differences.

The sources of discrepancy and their effect on U.S. trade statistics relative to China's reported trade statistics are summarized for 1992 in Table 7. For two of the sources, changes in price and destination after export, it is not known from available information if the net effect results in an overvaluation or an undervaluation of U.S. trade statistics vis a vis China's trade statistics. For several sources it is impossible to estimate the magnitude of the effect without engaging in a detailed reconciliation exercise where individual trade transactions are examined. For other sources, such as the use of a low-value threshold for recording trade, the coverage of repair trade, and the inclusion of Puerto Rico and the U.S. Virgin Islands in U.S. trade statistics, the effect appears to be minor or negligible.[19] The sources of discrepancy that stand out as having a sizeable effect on the gap between U.S. and Chinese trade statistics are 1) the CIF-FOB valuation difference; 2) differences in partner country attribution; 3) transit trade markup; and 4) the time lag.

An algorithm incorporating the effects of these four major sources of discrepancy is used to adjust U.S. reported trade statistics. For trade flows from China to the United States the algorithm in equation 1 is used

$$U.S.\ M_{CIF} - v(U.S.\ M_{CIF}) + TL^{C}_{US} - \left(ReX^{C}_{US} - \frac{ReX^{C}_{US}}{1+m^{C}_{US}}\right) - \alpha\frac{ReX^{C}_{US}}{1+m^{C}_{US}} \qquad (1)$$

where

U.S. M_{CIF} is the CIF value of U.S. reported imports from China,
v is the percentage CIF-FOB valuation difference for U.S. imports from China,
TL_{US} is the increase in trade over the average transport time for U.S. imports from China,
ReX_{US} is the value of reexports of Chinese goods to the United States by third countries,
m_{US} is the transit trade markup rate for reexports of Chinese goods to the U.S., and
α is the portion of third country reexports China attributed to the third country and not as exports to the U.S.

The superscript refers to the exporting country and the subscript to the importing country, with C representing China and US the United States.

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[19] Some countries have complained that U.S. estimates of the value of trade that occurs below the threshold are grossly inaccurate. The U.S. is considering a reexamination of the methodology used to estimate the low-value trade volume in order to improve estimates.

Table 7. Sources of Discrepancy and Their Effect on U.S. Trade Statistics Relative to China's Trade Statistics, 1992			
Source of discrepancy	U.S. statistics on imports from China	U.S. statistics on exports to China	Affects total trade only or both total trade and subcategories of trade
Valuation	↑ (6.3% of value of U.S. imports - CIF basis)	↓ (7.64-11.11% of value of U.S. exports)	both
Partner country	↑ (maximum about US$ 18 billion less reexport margin)	↓ (maximum about US$ 2.3 billion less reexport margin)	both
System of trade	↑ (value of China's bonded zones exports to U.S.; minor)	↑ (value of China's bonded zones imports from U.S.; minor)	both
Low-value threshold	↑ (aggregate of low value shipments; negligible)	↑ (aggregate of low value shipments; negligible)	total only
Geographic definition	↑ (maximum of US$ 58.2 million)	↑ (maximum of US$ 13.2 million)	both
Foreign vessels	↑ (value of fish and salvage)	-	both
International waters	-	-	
Repair trade	↑ ($6.5 million)	↑ ($19.8 million)	total only
Change in exchange rate	↓ negligible	↑ negligible	both
Transit trade markup	↑ (~ US$ 18 billion x reexport margin of .16 - .20)	↓ (~ US$ 2.349 billion x reexport margin of .17)	both
Other price changes	↕ (negligible)	↕ (negligible)	both
Change in destination	↕ (unknown)	↕ (probably less than effect on imports)	both

Table 7. Sources of Discrepancy and Their Effect on U.S. Trade Statistics Relative to China's Trade Statistics, 1992 (continued)			
Chinese firms underreport value of exports	↑ (unknown)	-	both
Chinese importers declare low import value	-	↑ (unknown)	both
Other smuggling	↑ (unknown)	↑ (to extent U.S. does not record as X to a third country such as Hong Kong)	both
Time lag	↓ (increase in trade covering average transit time; assuming average 1 month transit time and no seasonality in trade ~ US$ 0.5 billion)	↑ (increase in trade covering average transit time; assuming average 1 month transit time and no seasonality in trade ~US$ 0.1 billion)	both

For trade flows from the United States to China the algorithm is as shown in equation 2:

$$U.S.\ X_{FOB} + d(U.S.\ X_{FOB}) - TL_C^{US} + \left(ReX_C^{US} - \frac{ReX_C^{US}}{1 + m_C^{US}}\right) + \beta\frac{ReX_C^{US}}{1 + m_C^{US}} \qquad (2)$$

where

U.S. X_{FOB} is the FOB value of U.S. reported exports to China,
d is the percentage FOB-CIF valuation difference for U.S. exports to China,
TL^{US} is the increase in trade over the average transport time for U.S. exports to China,
ReX^{US} is the value of reexports of U.S. goods to China by third countries,
m^{US} is the transit trade markup rate for reexports of U.S. goods to China, and
β is the portion of third country reexports the U.S. attributed as exports to the third country and not as exports to China.

Various estimates of the effect of the CIF-FOB valuation difference were presented in the previous section. In this adjustment the value of U.S. reported imports from China on a customs basis is used for U.S. M_{FOB} and it is assumed the U.S. reported value of exports to China is understated by 10 percent. Making this adjustment reduces U.S. reported imports by US$ 1.722 billion or approximately 9 percent of the total gap of US$ 18.856 billion in eastward trade flows (Table 8). For westward trade flows the CIF-FOB adjustment increases U.S. exports by US$ 747 million or more than half of the total US$ 1.431 billion gap (Table 8).

Adjusting for the time lag effect requires several simplifying assumptions. We assume no seasonality in trade and an average transport and recording lag time of one month. As mentioned earlier, trade in both directions has been increasing over time. In 1992, U.S. imports of Chinese products increased by an average of over US$ 500 million per month, while U.S. exports to China increased by approximately US$ 100 million per month. For the time lag adjustment, U.S. reported imports are increased by US$ 500 million and U.S. reported exports are decreased by US$ 100 million (Table 8).

The transit trade markup (reexport margin) applies to all goods exported by China that are handled by a third country prior to their arrival in the United States as well as to all goods exported by the U.S. that pass through a third country on their way to China. For trade flows in both directions, the third country is most likely Hong Kong. Hong Kong reports reexports of US$ 18.084 billion of Chinese goods to the U.S. in 1992. To remove the value added by Hong Kong firms an estimate of the reexport margin for Chinese goods and U.S. goods is needed. Several estimates, ranging from 16 to 23 percent, are available for the Hong Kong reexport margin on Chinese goods. Assuming a 20 percent margin rate, the value of these reexports net of Hong Kong's value added is US$ 15.07 billion. U.S. reported imports from China are reduced by the estimated reexport margin of US$ 3.014 billion (Table 8). Surveys of Hong Kong businesses indicate the reexport margin on goods from countries outside Asia is about 17 percent. Applying this margin rate to the US$ 2.349 billion in Hong Kong reexports of U.S. goods to China results in US$ 341 million in value added. This value added is included in China's reported imports of U.S. goods but not in U.S. reported exports.

Therefore, U.S. exports to China are adjusted upward by US$ 341 million (Table 8). The transit trade markup adjustment represents 16 percent of the total gap in eastward trade flows and 24 percent of the gap in westward flows.

Partner country attribution is the largest source of discrepancy and, unfortunately, estimates of the magnitude of its effect are rough. What is needed is an estimate of the value of Chinese exports for which the United States is the final consumer but that China, for whatever reason, did not record as exports to the United States. In 1992, this was the situation with most of China's indirect trade. Hong Kong is certainly the major third country involved in indirect trade between China and the United States, although it is not the only third country. Because statistics regarding indirect trade between the U.S. and China are only available from Hong Kong, the adjustment deals only with indirect trade through Hong Kong. Hong Kong reexports of China origin to the United States in 1992 net of a reexport margin have been estimated at US$ 15.07 billion. These exports would have been attributed by China as exports to Hong Kong or to the United States. If it is assumed that China attributed all goods exported to Hong Kong and later reexported to the United States as exports to Hong Kong, differences in partner country attribution account for 80 percent of the total gap. Making this adjustment reduces U.S. imports from China to US$ 8.144 billion, only slightly lower than China's reported exports to the United States of US$ 8.594 billion (Table 8).

One piece of information available to help determine the portion of Hong Kong reexports already included in China's exports to the U.S. is China's recording of exports according to the country of consumption and the country of purchase. For 1992, China's reported US$ 8594 million in exports to the U.S. consisted of sales of US$ 5183 million to U.S. purchasers, US$ 3039 million in sales to Hong Kong purchasers, and US$ 372 million in sales to "other areas." If the merchandise purchased by Hong Kong firms was reexported through Hong Kong, then US$ 3039 million is a reasonable estimate of the overlap. That is, China already included this amount in its export statistics for the United States. Sales to Hong Kong purchasers represent approximately 20 percent of indirect trade through Hong Kong. Assuming only 80 percent rather than 100 percent of Hong Kong reexports were attributed to Hong Kong instead of the United States, U.S. imports from China are adjusted down by US$ 12.056 billion to US$ 11.158 billion (Table 8). However, it is possible that a portion of this US$ 3039 million in trade was purchased by Hong Kong firms and transported directly from China to the United States. If this is the case, US$ 3039 is an overestimate of the overlap.

Differences in partner country attribution also can affect westward trade flows. Three separate estimates of the portion of Hong Kong reexports the U.S. did not attribute as exports to China are made. The estimates are 100, 50, and 25 percent of the US$ 2.008 billion in U.S. goods reexported by Hong Kong to China (net of reexport margin). Most likely the majority of westward trade flows was successfully attributed by the United States. The examples given in the previous section of U.S. products ending up in China's market while the U.S. attributed them as exports to Hong Kong (fruits and cigarettes) often involved smuggling and, hence, would not be included in China's trade statistics anyway.

Table 8. Adjustments to U.S. Reported Imports from China and Exports to China, 1992
(in million US$)

Trade Flows from China to United States			Trade Flows from United States to China		
	Adjustment	Revised total		Adjustment	Revised total
U.S. reported imports from China		27,450	U.S. reported exports to China		7,470
Conversion to FOB basis	-1,722	25,728	Conversion to CIF basis	+747	8,217
Time lag adjustment	+500	26,228	Time lag adjustment	-100	8,117
Reexport margin adjustment	-3,014	23,214	Reexport margin adjustment	+341	8,405
Partner country attribution			Partner country attribution		
Scenario I (α = 1.0)	-15,070	8,144	Scenario I (β = 1.0)	+2,008	10,754
Scenario II (α = 0.8)	-12,056	11,158	Scenario II (β = 0.5)	+1,004	9,580
			Scenario III (β = 0.25)	+502	8,992
China reported exports to U.S.		8,594	China reported imports from U.S.		8,901
Assumptions v = 0.063 (6.3 percent FOB-CIF difference) ReX_{US} = US$ 18,084 million m_{US} = 0.20 (20 percent reexport margin rate)			Assumptions d = 0.10 (10 percent CIF-FOB difference) ReX^{US} = US$ 2,349 million m^{US} = 0.17 (17 percent reexport margin rate)		

Source: United Nations commodity trade data.

Figures 4 and 5 provide examples of trade flows from China and to China, respectively, that illustrate how some of the discrepancies arise.

Adjusting U.S. reported trade statistics for these four sources of discrepancy reduces U.S. imports from US$ 27.450 billion to a range of US$ 8.144 billion - US$ 11.158 billion. This range is in close conformity with China's reported US$ 8.594 billion in exports to the United States. The adjustments increase U.S. exports from the reported US$ 7.470 billion to a range of US$ 8.992 - US$ 10.754 billion. The lower end of this range exceeds slightly China's reported imports from the United States of US$ 8.901 billion. The other sources of discrepancy not included in the adjustment and for which the direction of effect is determinable (with the exception of changes in the exchange rate) would lead to further downward adjustments of U.S. reported imports from China -- probably only another US$ 200 million. Similarly for westward trade flows, all other identified sources of discrepancy for which the direction of effect is determinable lead to a further downward adjustment of U.S. reported exports to China of approximately US$ 200 million.

Figure 4. An Illustration of Trade Flows from China to the United States

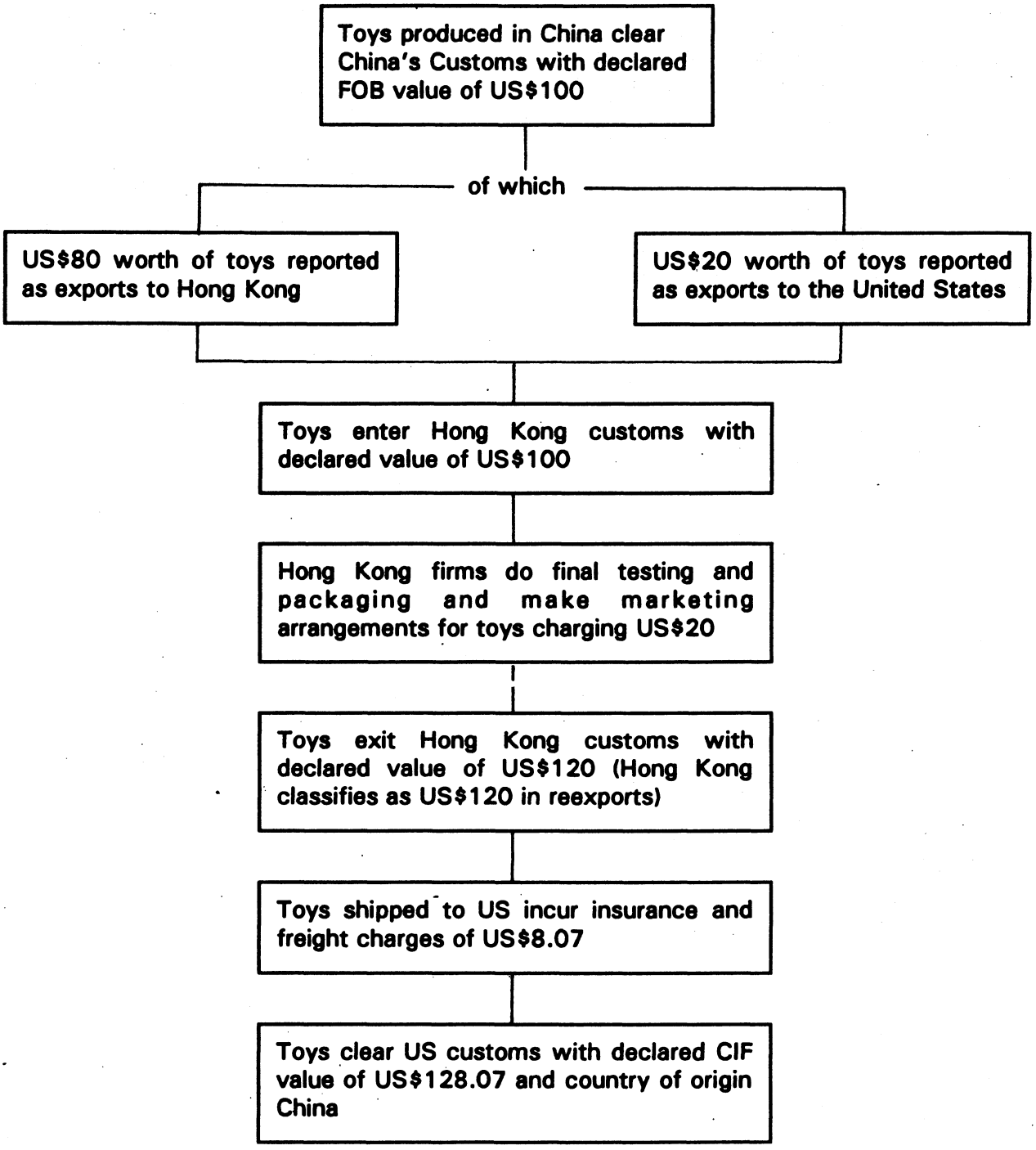
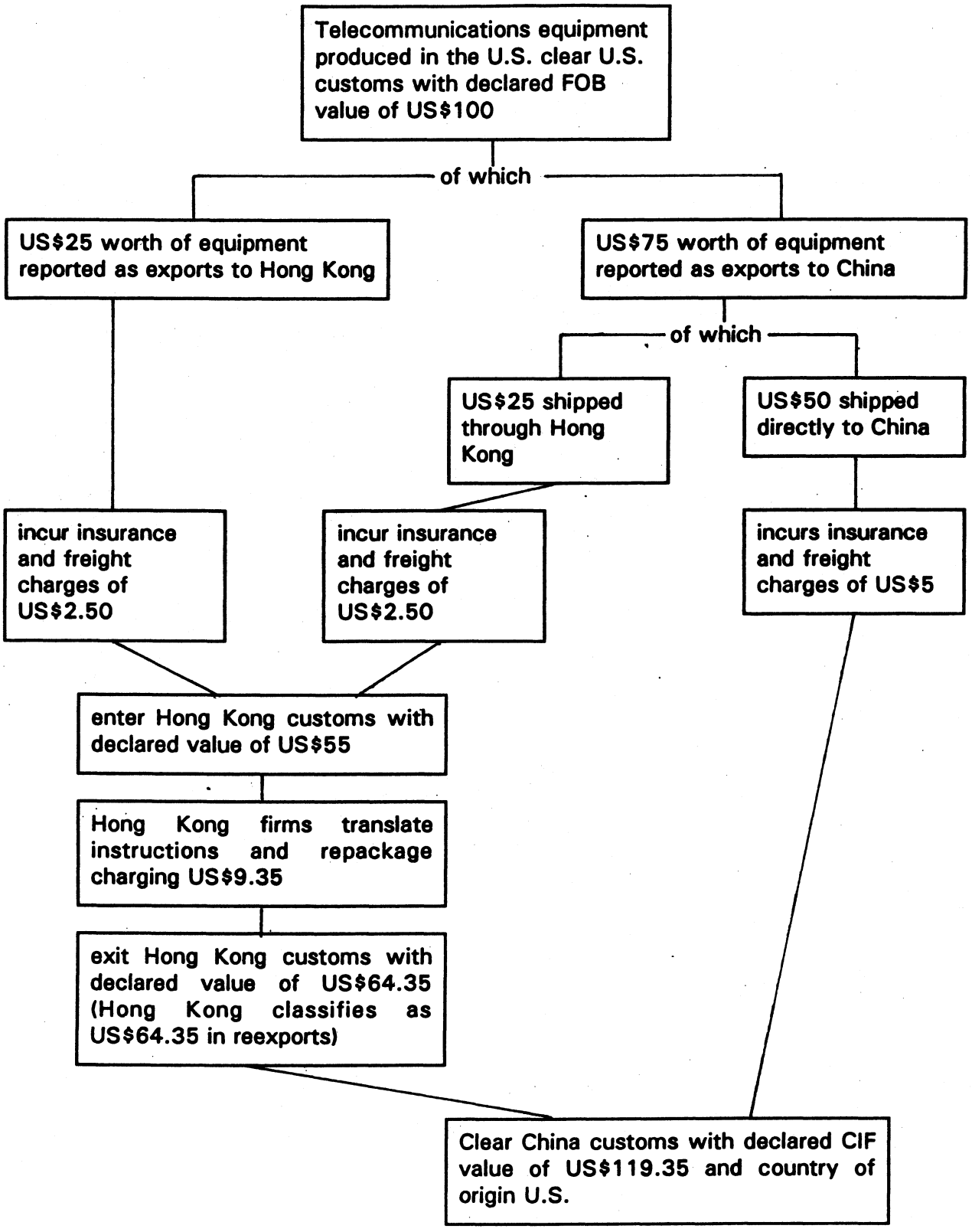


Figure 5. An Illustration of Trade Flows from the United States to China



IV. ADJUSTED TOTAL TRADE FOR CHINA

This section applies what was learned from the examination of the compilation of U.S. and China trade statistics and the adjustment of U.S. trade statistics to derive a range of adjusted global import and export trade figures for China. The objective is to arrive at estimates that reflect what China earned in 1992 from its exports and what China paid in 1992 for its imports. We apply an algorithm that adjusts for known discrepancies to China's trading partners' statistics to derive estimates of China's adjusted global imports and exports.

This adjustment exercise uses the trade statistics of China's top twelve trading partners in 1992: Hong Kong, Japan, United States, Taiwan, Germany, Russia, South Korea, Singapore, Italy, Canada, Australia, and France. These twelve countries accounted for 80 percent of China's reported total trade in 1992. The absolute gap between the trade statistics of these 12 countries and Chinese statistics is shown in Figure 4. China's discrepancy with Hong Kong on exports nearly offsets China's discrepancy with other major trading partners on exports. For all but South Korea, Chinese statistics on imports exceed those of its trading partners.

The data used in the comparison are United Nations 1992 trade data for China's reported trade statistics and ten of the twelve major trading partners' reported trade statistics. Neither Russia or Taiwan report their trade statistics to the United Nations; therefore, own country sources were used for these two countries. Because Hong Kong does not report separately total and retained imports, Hong Kong imports from China must be estimated. On the export side, Hong Kong's published domestic exports to China are used.

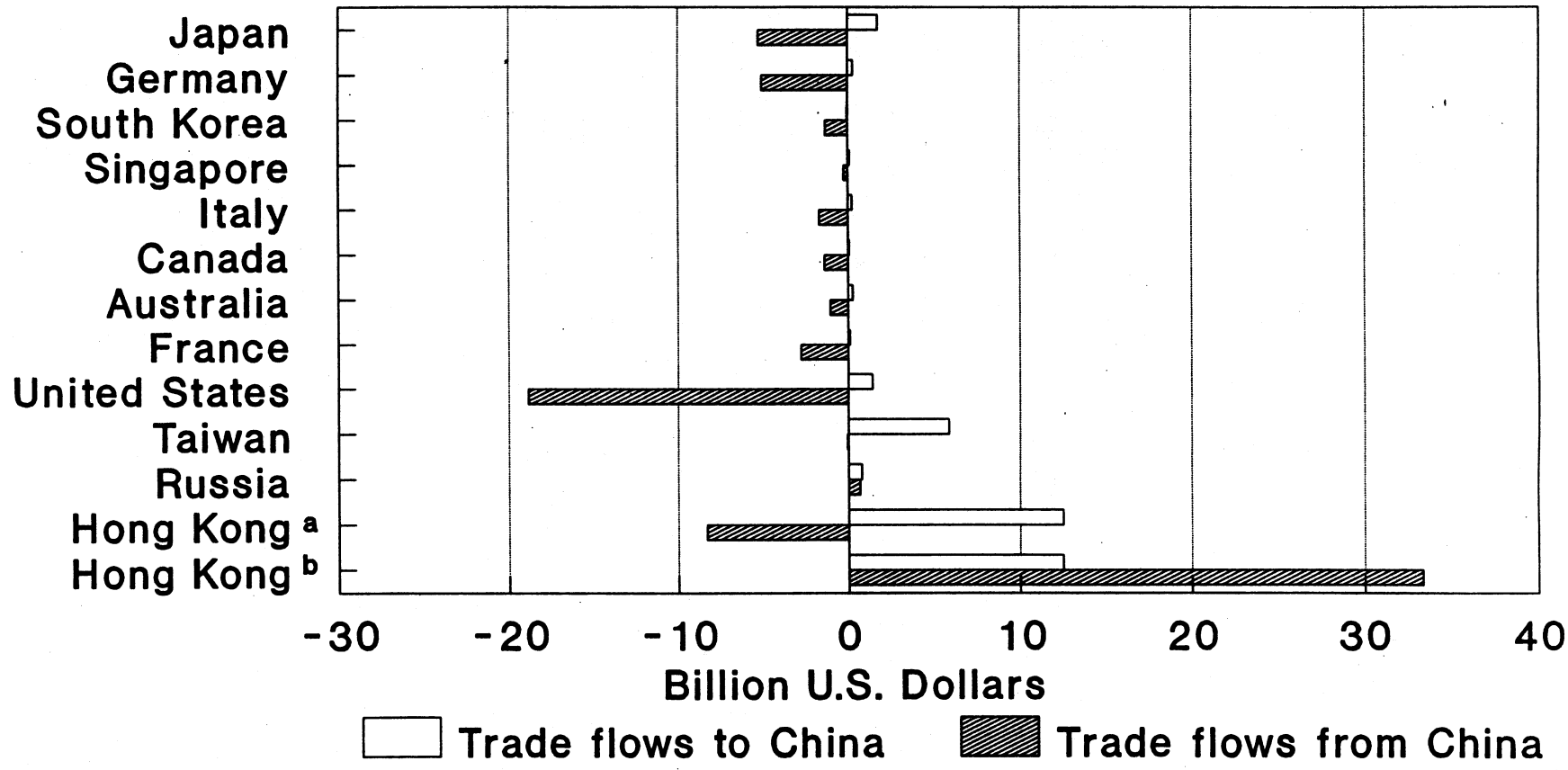
No attempt is made to estimate trade that escapes the statistical systems of both China and her trading partners. Unrecorded trade will primarily affect China's bilateral trade statistics with Russia, because of the long shared border, and Taiwan, with smuggling across the straits. The estimates of China's total imports and exports, therefore, are biased downwards. The effect of hidden trade on China's balance of trade is indeterminate.

We saw in the previous sections that the role of Hong Kong as a reexport center for Chinese trade led to sizeable partner country attribution and valuation differences in the trade statistics of the U.S. and China. Two China-EC studies of discrepancies in trade statistics (1988 and 1993) and the GATT Informal Group of Experts on Export Statistics identified shipments through Hong Kong as a major source of discrepancy. Therefore, it is important first to take a closer look at the role of Hong Kong transhipments before proceeding to developing an algorithm for the adjustment.

The Role of Hong Kong in Indirect Trade

As China's trade with the world has grown at record rates in the 1980s and 1990s, Hong Kong's trade has grown as well, especially reexports. The number of Hong Kong businesses involved in the manufacture and trade of goods produced on the mainland has increased dramatically with the opening of China's economy. Trading activities undertaken by Hong Kong companies include more than traditional entrepot trade. Trading companies are involved in quality control, packaging, transportation, warehousing, product design, sample-

Figure 6. Absolute Discrepancies Between China and Trading Partner Statistics, 1992



a Hong Kong domestic exports to China and Hong Kong total imports from China.

b Hong Kong domestic exports to China and estimated Hong Kong retained imports from China.

making, and other manufacturing-related services. Performance of these services results in a high value-added for reexports.

Using a linear interpolation of the reexport margins reported by Hong Kong officials of 13 percent in 1988 and 25 percent in 1993, Hong Kong's trade with China for 1988 through 1992 is decomposed in Table 9 (Tislenkoff 1994). The share of imports of Chinese goods retained by Hong Kong has declined from 25 percent in 1988 to only 9 percent in 1992. The volume of retained imports, however, has declined less precipitously. This is because reexports and Hong Kong's value added to reexports are increasing at rates faster than the increase in imports from China. In 1992 Hong Kong retained imports of Chinese goods is estimated as US$ 4,122 million.

For over a decade the main country of destination and origin for Hong Kong reexports has been China (Table 10). China was the destination for nearly US$ 20 billion or 29 percent of Hong Kong reexports and the country of origin for 59 percent of reexports (US$ 41 billion) in 1991. With twice the volume of trade flowing out of China through Hong Kong as flowing in, it is not surprising that statistical discrepancies between China and most of her major trading partners are concentrated on China's exports.

The United States is not far behind China in the volume of reexports it receives from Hong Kong (US$ 14.39 billion). Hong Kong plays a role in the reexport of other Asian countries' goods as well, especially those of Japan, Taiwan, and South Korea (Table 10).

Hong Kong reexports to China's major trading partners range from less than US$ 170 million in the case of Russia to over US$ 19 billion for the United States in 1992 (Table 11). Hong Kong reexports include goods from Japan, Taiwan, United States, South Korea, and other countries in addition to China. Nevertheless, Hong Kong reexports to these countries are most likely from China. In 1992, 94, 95, and 76 percent of Hong Kong reexports to the United States, Canada, and Japan, respectively, were of China origin (Tislenkoff 1994). As expected very little trade between China and Russia appears to go through Hong Kong. (Hong Kong reexports to Russia are only US$ 170 million while China's reported exports to Russia are US$ 2,570 million.) Singapore reports US$ 2.25 billion in imports from China suggesting some of the US$ 1.8 billion in Hong Kong reexports to Singapore are of China origin. However, Singapore's and China's trade statistics are in close agreement on the trade flow from China.

In the case of Taiwan, direct trade with mainland China is not allowed. Trade occurs through third countries and overwhelmingly Hong Kong serves as the intermediary. There also are political sensitivities in reporting trade between Taiwan and mainland China. For trade flows from China to Taiwan the discrepancy is small, US$ 54 million or 8 percent. Both sets of statistics indicate a modest level of trade from China to Taiwan of about US$ 700 million. This level of trade would account for only a relatively small portion of Hong Kong total reexports to Taiwan (US$ 3,399 million in 1992). For trade flows in the other direction, Hong Kong is handling a much larger volume. Taiwan reports only US$ 1 million in exports to China, while China reports US$ 5.9 billion in imports from Taiwan. Presumably this trade has been recorded by Taiwan as exports to Hong Kong.

Table 9. Hong Kong Imports from China and Reexports of Chinese Goods, 1988-1992					
	1988	1989	1990	1991	1992
Imports (CIF) (million US dollars)	20,212	25,542	30,667	38,198	45,798
Reexports (FOB) (million US dollars)	17,081	24,451	31,222	40,999	53,845
Reexport margin (percent)	13.0	15.4	17.8	20.2	22.6
Reexports net of margin (million US dollars)	15,116	21,188	26,504	34,109	41,676
Retained imports (million US dollars)	5,096	4,355	4,162	3,990	4,122
Retained imports share of total imports (percent)	25	17	14	10	9
Sources: Hong Kong Census and Statistics Department 1992, p.96; Tislenkoff 1994, p.7; United Nations trade statistics.					

Table 10. Share of Hong Kong Reexports by Country of Destination and Origin, 1982-1991
(in percent)

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Main country of destination										
China	18.0	21.6	33.6	43.7	33.4	32.9	34.5	29.9	26.8	28.7
United States	12.7	14.3	14.5	14.0	18.2	17.8	18.0	20.8	21.2	20.7
Germany	1.6	1.4	1.3	1.5	2.3	3.2	3.3	3.9	5.7	6.0
Japan	5.8	5.6	5.5	5.2	5.4	5.3	6.3	6.4	5.9	5.5
Taiwan	6.0	6.1	5.8	4.1	4.8	5.3	5.1	4.8	5.1	4.6
Main country of origin										
China	33.1	35.0	33.7	32.9	42.1	46.1	47.8	54.3	58.1	59.0
Japan	20.5	20.7	22.4	21.4	15.2	13.5	13.7	11.3	10.2	10.7
Taiwan	5.6	4.6	6.1	9.1	7.1	6.9	7.7	7.8	7.3	7.8
United States	11.1	10.7	10.2	9.0	8.5	7.4	7.0	6.4	5.9	5.0
South Korea	3.1	2.4	2.8	3.5	2.9	3.4	4.7	3.3	2.8	2.8

Source: Hong Kong Census and Statistics Department 1992, p. 96.

Table 11. The Role of Hong Kong Reexports, 1992

Country	Total Hong Kong Reexports to	Gap Between Trading Partner Imports and China Exports	Hong Kong Reexports as a Share of Gap
	(in million U.S. dollars)		(percent)
France	1,426	2,739	52
United States	19,224	18,851	102
Canada	1,434	1,374	104
Germany	4,278	5,039	85
Australia	1,308	1,043	125
Italy	1,378	1,684	82
South Korea	1,771	1,320	134
Japan	4,841	5,247	92
Singapore	1,792	221	
Taiwan	3,399	54	
Russia	169	-667	

Source: United Nations commodity trade data; Taiwan Ministry of Finance; State Committee of the Russian Federation on Statistics 1992.

For each of China's remaining major trading partners, Hong Kong reexports are compared to the gap in reported statistics for trade flows from China (Table 11). For most of these countries Hong Kong reexports and the gap in statistics are of similar magnitude, indicating that differences in partner country attribution is the major source of the discrepancy. In the case of France, however, even if all Hong Kong reexports were of China origin and China had attributed none of these goods as exports to France, this source of discrepancy would still account for only half of the total gap. China's recording of indirect trade through Hong Kong as exports to Hong Kong and not attributing them to the consuming country could account for the majority of the gap in trade flows from China for the United States, Canada, Australia, Italy, South Korea, and Japan.

China's Adjusted Imports

China's 12 major trading partners report total exports to China of US$ 43.741 billion (FOB basis). Assuming these countries account for 83.4 percent of China's total imports, China's global imports would be US$ 52.447 billion (FOB basis) based on partner country data.[20] In contrast, China reported global imports of US$ 80.585 billion (CIF basis) in 1992.

We know from the detailed adjustment exercise for the U.S. and from the examination of Hong Kong reexport statistics above that some adjustments need to be made to the partner trade data. First, the two sets of trade statistics need to be on a comparable valuation basis. It was decided to compile estimates of trade on a CIF basis, thereby assuming the importing country pays the insurance and freight charges and the exporting country receives payment for these services.[21] Therefore, the first adjustment is to convert the trading partners' reported exports from FOB to CIF valuation.

Second, Taiwan reported trade statistics for exports to China appear to be unreliable. Taiwan reports exports to China of only US$ 1 million while Hong Kong reports reexports of Taiwan goods to China of US$ 6.3 billion (Central Intelligence Agency, 1994, p.32) and China reports imports of US$ 5.866 billion from Taiwan. Consequently a special adjustment needs to be made to Taiwan's reported exports to China.

Third, a large volume of trade to China passes through third countries, Hong Kong in particular, where some value added occurs. This reexport margin on trade flows to China needs to be added to the base estimates of China's trading partners.

Fourth, China's reported imports from Hong Kong (US$ 20.534 billion) far exceed Hong Kong's domestic exports to China (US$ 8.006 billion), indicating China and Hong Kong differ in their attribution of country of origin. Hong Kong viewed US$ 27.421 billion worth of goods as reexports to China from other countries, while China classified a portion of them as Hong Kong domestic exports. If China was unable to determine correctly the country of origin, it is possible the original exporting country also attributed some of these goods as exports to

[20] According to Chinese trade statistics these 12 countries accounted for 83.4 percent of China's total imports in 1992.

[21] In reality either of the trading countries or a third country can provide the insurance and freight services.

Hong Kong instead of exports to China being shipped through Hong Kong. These reexported goods need to be added to the partner country base estimates because they are not included in Hong Kong domestic export statistics nor in the partner country statistics on exports to China.

Finally, in 1992 China's imports were up US$ 16.8 billion over 1991 most likely contributing to a time lag discrepancy.

The algorithm used to adjust China's imports is shown in the equation below

$$\sum TPX_{FOB} + d(TPX_{FOB}) + \left(\sum ReX_C^{TP} - \frac{\sum ReX_C^{TP}}{1 + m_C^{TP}}\right) + TA + \beta\frac{\sum ReX_C^{TP}}{1 + m_C^{TP}} - TL_C^{TP} \quad (3)$$

where

TPX_{FOB} is the FOB value of trading partner exports to China,
d is a vector of the percentage FOB-CIF valuation difference for each trading partner's exports to China,
ReX^{TP} is the value of reexports to China of trading partners' goods through third countries,
m^{TP} is the reexport margin rate for goods flowing to China,
TA is the adjustment for Taiwan exports to China,
β is the portion of third country reexports the trading partners attributed as exports to the third country and not to China, and
TL^{TP} is the time lag adjustment.

Three scenarios with different sets of assumptions are estimated using the algorithm in equation 3. All three scenarios start with the 12 major trading partners' reported exports to China (FOB basis) as the base. For all scenarios it is assumed that these 12 countries represented 83.4 percent of China's total imports in 1992. All scenarios use Hong Kong reported reexports to China as a measure of total reexports to China because of the lack of data on shipments through other countries. In all three scenarios, Taiwan exports to China are adjusted by adding US$ 5.866 billion (after the FOB-CIF adjustment). It is assumed that the average time lag from when the goods are recorded by the trading partner as an export and when China records the goods as imports is one month. Therefore, US$ 1.4 billion is subtracted from the trading partners exports.

Scenario I assumes the following:

- a 8 percent FOB-CIF difference for exports from France, U.S., Canada, Germany, Australia, and Italy;
- a 3 percent FOB-CIF difference for exports from South Korea, Japan, Singapore, Taiwan, Russia, and Hong Kong;
- a reexport margin rate of 12 percent;
- 20 percent of Hong Kong reexports to China (net of reexport margin) were not attributed by China's trading partners as exports to China.

Scenario II assumes the following:

- a 10 percent FOB-CIF difference for exports from France, U.S., Canada, Germany, Australia, and Italy;
- a 5 percent FOB-CIF difference for exports from South Korea, Japan, Singapore, Taiwan, Russia, and Hong Kong;
- a reexport margin rate of 14 percent;
- 33 percent of Hong Kong reexports to China (net of reexport margin) were not attributed by China's trading partners as exports to China.

Scenario III assumes the following:

- a 10 percent FOB-CIF difference for exports from France, U.S., Canada, Germany, Australia, Italy, Taiwan, and Russia;
- a 5 percent FOB-CIF difference for exports from South Korea, Japan, Singapore, and Hong Kong;
- a reexport margin rate of 17 percent;
- 50 percent of Hong Kong reexports to China (net of reexport margin) were not attributed by China's trading partners as exports to China.

China's adjusted imports under all three scenarios are less than China's reported imports of US$ 80,585 million (Table 12). Other sources of discrepancy identified in this study would tend to reduce slightly the adjusted trading partners statistics on exports to China.

China's Adjusted Exports

China's 12 major trading partners report total imports from China of US$ 74.393 billion (CIF basis). Assuming these countries account for 82.8 percent of China's total exports, China's global exports would be US$ 89.847 billion (CIF basis) based on partner country data.[22] This estimate is comparable to China's reported global exports of US$ 84.940 billion (CIF basis) in 1992. Nevertheless, the trading partners' reported statistics need to be adjusted to account for identified sources of discrepancy. Because the objective is to have both imports and exports on a CIF basis and trading partner data on imports are already on a CIF basis, no valuation adjustment is necessary. For trade flows to Taiwan, China and Taiwan statistics are very similar; therefore, Taiwan data are used in the base estimate. The reexport margin on trade flows from China is subtracted from China's trading partners' reported statistics because the reexport margin was earned by and paid to the reexporting countries

[22] According to Chinese trade statistics these 12 countries accounted for 82.8 percent of China's total exports in 1992.

Table 12. Adjustment of China's Global Imports Under Three Scenarios, 1992 (in million US dollars)

	Scenario I	Scenario II	Scenario III
Major trading partners exports (FOB)	43,741	43,741	43,741
FOB-CIF adjustment	+2,177	+3,052	+3,189
Revised total	45,918	46,793	46,930
Taiwan adjustment	+5,866	+5,866	+5,866
Revised total	51,784	52,659	52,796
Scaling to all trade partners	62,092	63,141	63,305
Reexport margin adjustment	+2,938	+3,367	+3,984
Revised total	65,030	66,508	67,289
Country attribution adjustment	+4,897	+7,938	+11,718
Revised total	69,926	74,446	79,007
Time lag adjustment	-1,400	-1,400	-1,400
Total adjusted imports	68,526	73,046	77,607
China reported imports (CIF)	80,585	80,585	80,585

Assumptions
Scenario I: 8 percent FOB-CIF adjustment for France, U.S., Canada, Germany, Australia, and Italy; 3 percent FOB-CIF adjustment for South Korea, Japan, Singapore, Taiwan, Russia, and Hong Kong; reexport margin rate of 12 percent; 20 percent country attribution adjustment.
Scenario II: 10 percent FOB-CIF adjustment for France, U.S., Canada, Germany, Australia, and Italy; 5 percent FOB-CIF adjustment for South Korea, Japan, Singapore, Taiwan, Russia, and Hong Kong; reexport margin rate of 14 percent; 33 percent country attribution adjustment.
Scenario III: 10 percent FOB-CIF adjustment for France, U.S., Canada, Germany, Australia, Italy, Taiwan, and Russia; 5 percent FOB-CIF adjustment for South Korea, Japan, Singapore, and Hong Kong; reexport margin rate of 17 percent; 50 percent country attribution adjustment.

and not to China. Three scenarios, each with a different set of assumptions, are estimated using the algorithm shown in equation 4.

$$\sum TPM_{CIF} - \left(\sum ReX_{TP}^{C} - \frac{ReX_{TP}^{C}}{1 + m_{TP}^{C}}\right) + \alpha \frac{\sum ReX_{TP}^{C}}{1 + m_{TP}^{C}} + TL_{TP}^{C} \qquad (4)$$

where

TPM_{CIF} is the CIF value of trading partner imports from China,
ReX_{TP} is the value of reexports of Chinese goods to the trading partners through third countries,
m_{TP} is the reexport margin rate for goods flowing from China,
α is the portion of third country reexports that trading partners attributed as imports from a country other than China, and
TL_{TP} is the time lag adjustment.

All three scenarios start with the 12 major trading partners reported imports from China (CIF basis) as the base. Data on domestic imports are not available for Hong Kong and must be estimated. Retained imports derived in Table 9 of US$ 4,122 billion for Hong Kong are used in the base estimate. For all scenarios it is assumed that these 12 countries represented 82.8 percent of China's total exports in 1992. All scenarios use Hong Kong reported reexports of Chinese goods as a measure of total reexports of Chinese goods because of the lack of data on shipments through other countries. China's exports grew by US$ 13.1 billion in 1992 or a monthly average of US$ 1.1 billion.

Scenario I assumes the following:

- a reexport margin rate of 16 percent;
- 50 percent of Hong Kong reexports of Chinese goods (net of reexport margin) were not attributed by China's trading partners as imports from China.

Scenario II assumes the following:

- a reexport margin rate of 20 percent;
- 25 percent of Hong Kong reexports of Chinese goods (net of reexport margin) were not attributed by China's trading partners as imports from China.

Scenario III assumes the following:

- a reexport margin rate of 23 percent;
- all Hong Kong reexports of Chinese goods were attributed by China's trading partners as imports from China.

If the assumptions made in scenario II are correct, then China's reported global exports are consistent with partners trade data (Table 13). On the other hand, the assumptions of Scenario I lead to an estimate that exceeds China's reported global exports by nearly US$ 15 billion and Scenario III results in an estimate that is approximately US$ 6 billion less than China's reported figure (see Table 13).

Implications

For China's reported global imports to be consistent with partner country statistics, China's trading partners must attribute nearly half of the value of exports that are shipped through third countries as exports to the third country rather than to China. There certainly is evidence that some U.S. products are recorded as exports to Hong Kong even though they are being reexported by Hong Kong to China. It is perfectly understandable that this will happen occasionally given the geographic proximity of Hong Kong to China and the major involvement of Hong Kong businesses in China trade. How frequently it occurs is impossible to say without more detailed information. In 1992 Taiwan is perhaps the most extreme example of the difference in country attribution. Taiwan attributed only US$ 1 million in exports to China yet Hong Kong reported reexports of Taiwan goods to China exceeding US$ 6 billion and China recorded nearly US$ 6 billion in imports from Taiwan.

In 1992, China frequently attributed exports to Hong Kong rather than the ultimate importing country. If the ultimate importing countries attributed these imports to China, then the only major adjustments that would need to be made to estimate China's global exports are the FOB-CIF valuation difference and the removal of the reexport margin. In 1992, based on Hong Kong reexports of Chinese goods, the reexport margin was approximately US$ 7.5 billion to US$ 10 billion. These two adjustments still leave a sizeable gap between partner trade statistics of roughly US$ 80 billion in global exports for China and Chinese statistics of roughly US$ 92 billion in global exports.

Higher Chinese statistics for global exports could be consistent with the export of intermediate products. For example, China assembles imported parts and then exports an intermediate product to a third country. The third country uses the intermediate product in a final product and then exports the finished product to an importing country. The third country, such as Hong Kong, does not view the import of the intermediate product from China as a domestic import, rather it is a reexport. China records as an export the full value of the intermediate product; Hong Kong records the same value as an import and the higher value of the finished product as a reexport; the importing country records the value of the final product as an import from Hong Kong because of a determination that Hong Kong is the country of origin. While it is known that China produces intermediate products, what is not known is how Hong Kong records trade of intermediate products and whether the scenario just described commonly occurs. The above scenario appears to be inconsistent with Hong Kong Census and Statistics Department's definition of reexports.[23] Nevertheless, country of origin determination is subjective and countries do differ.

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[23] Hong Kong defines reexports as goods which have previously been imported into Hong Kong and which are reexported without having undergone in Hong Kong a manufacturing process which has changed permanently the shape, nature, form or utility of the product (Hong Kong Census and Statistics Department 1992).

Table 13. Adjustment of China's Global Exports Under Three Scenarios, 1992
(in million US dollars)

	Scenario I	Scenario II	Scenario III
Major trading partners imports (CIF)	74,393	74,393	74,393
Scaling to all trade partners	89,847	89,847	89,847
Reexport margin adjustment	-7,427	-8,974	-10,069
Revised total	82,420	80,872	79,778
Country attribution adjustment	+23,209	+11,218	+0
Revised total	105,629	92,090	79,778
Time lag adjustment	+1,100	+1,100	+1,100
Total adjusted exports	106,729	93,190	80,878
China reported exports (FOB)	84,940		
China reported exports (CIF) (6%)	90,036		
China reported exports (CIF) (8%)	91,735		
China reported exports (CIF) (10%)	93,434		

Assumptions
Scenario I: reexport margin rate of 16 percent; 50 percent country attribution adjustment.
Scenario II: reexport margin rate of 20 percent; 25 percent country attribution adjustment.
Scenario III: reexport margin rate of 23 percent; no country attribution adjustment.

Source: United Nations trade data.

V. THE PATTERN OF DISCREPANCIES

This section presents a disaggregated comparison of Chinese trade statistics with those of eleven of China's major trading partners: Hong Kong, Japan, United States, Taiwan, Germany, South Korea, Singapore, Italy, Canada, Australia, and France. This examination of the size and pattern of statistical discrepancies across China's major trading partners will allow us to see in more detail where the discrepancies lie. The algorithms developed in the previous sections were applied to aggregate trade data. In order to determine trading partner specific parameters for the major sources of discrepancy requires at a minimum knowing the composition of trade and trading routes used. Such a detailed study is beyond the scope of this project. Nevertheless, the examination of disaggregated data in this section will shed some light on the necessity for a more detailed, country-specific methodology.

The same data sources used in the aggregate adjustment are used here -- United Nations 1992 trade data, SITC revision 3, for China's reported trade statistics and the trade statistics of the trading partners with the exception of Taiwan. Taiwan does not report their trade statistics to the United Nations; therefore, trade statistics compiled by Taiwan's Ministry of Finance are used. Taiwan trade data reported in the harmonized trade classification system was converted to SITC revision 3 using a concordance.

Trade discrepancies between China and its major trading partners are first analyzed at the one digit or section level with the purpose of identifying those categories with the largest relative gap in trade statistics. In some cases the gaps in other categories may be larger in absolute terms, but the gap represents only a small portion of trade in that category. Several observations can be made with respect to trade flows from China's trading partners to China in 1992 (Tables 14a and 14b).[24]

- China's reported imports exceed trading partner's reported exports for all major partners except South Korea.
- China and South Korea report nearly identical trade flows in this direction.
- The total difference is relatively small, less than 20 percent, for all trading partners except Taiwan which shows a gap of 200 percent and Hong Kong domestic exports which show a gap of 88 percent.
- The categories where discrepancies were most likely to be a sizeable percentage of bilateral trade were section 9, goods not classified by kind; section 4, animal and vegetable oils and fats; and section 3, mineral fuels and lubricants.
- Bilateral trade statistics were most likely to agree for section 7, machinery and transport equipment; section 8, miscellaneous manufactured goods; and section 5, chemicals.

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[24] See Appendix A for tables showing the absolute and relative size of the trade gap between China's trade statistics and those of its 11 major trading partners.

Table 14a. Percentage Difference Between China's Reported Imports and Trading Partner's Reported Exports, 1992

SITC Rev-3 Code/DESC	Japan	Germany	S. Korea	Singapore	Italy	Canada	Australia	France	U.S.	Taiwan	Hong Kong (Total)	Hong Kong (Domestic)
Total	14	8	0	11	15	3	19	7	17	200	-53	88
0 FOOD & LIVE ANIMALS							71	64			-141	
1 BEVERAGES & TOBACCO	120			133				143	93		-143	-200
2 CR MAT INEDIBLE			3		148					200	-100	
3 MIN FUELS LUBRICANTS		50	-2	92				-100		200		
4 ANIMAL VEG OILS FATS	120	111			-200		46			200		127
5 CHEMICALS												109
6 MANUFACTURED GOODS			-1			109			70			121
7 MACH & TRANS EQUIP												
8 MISC MANUFACTURED						88						-199
9 GOODS NOT CLAS BY KIN	-196	-187		112	-196	-200	-198		-83			-199

Table 14b. Difference Between China's Reported Imports and Trading Partner's Reported Exports, 1992 (in million US$)

SITC Rev-3 Code/DESC	Japan	Germany	S. Korea	Singapore	Italy	Canada	Australia	France	U.S.	Taiwan	Hong Kong (Total)	Hong Kong (Domestic)
Total	1756	320	-31	124	251	62	288	101	1431	5865	-14893	12528
0 FOOD & LIVE ANIMALS							84	95			-512	
1 BEVERAGES & TOBACCO	3			4				5	19		-363	-87650
2 CR MAT INEDIBLE			21		119						-611	
3 MIN FUELS LUBRICANTS		2	-14	455				-2				
4 ANIMAL VEG OILS FATS	3	42			-1		3					29
5 CHEMICALS										688		1834
6 MANUFACTURED GOODS			-119			83			491	1854		5378
7 MACH & TRANS EQUIP										2445		
8 MISC MANUFACTURED						19						-1908438
9 GOODS NOT CLAS BY KIN	-92	-29		28	-98	-9	-205		-53			-309857

Note: The three categories chosen for each trading partner are those with the absolute largest percentage gap. In case of ties, the category with largest absolute gap selected.

$$\text{Percentage difference} = \frac{\text{China's Reported M - Trading Partner's Reported X}}{\frac{(\text{China's Reported M + Trading Partner's Reported X})}{2}}$$

Source: United Nations commodity trade data, SITC revision 3. Taiwan reported data from Taiwan's Ministry of Finance, harmonized system converted to SITC revision 3.

- The fact that China's reported imports are 53 percent less than Hong Kong's reported total exports but 88 percent greater than Hong Kong's reported domestic exports indicates China successfully attributes some but not all of Hong Kong reexports to the appropriate country of origin.

Tables 15a and 15b show the categories with the largest percentage gap and corresponding absolute gap, respectively, in bilateral trade flows from China.

- Without exception China's trading partners report higher imports than China reports in exports.

- The difference is relatively small (20 percent or less) for Taiwan, Singapore, and Hong Kong.

- South Korea and Japan fall into a middle group with percentage gaps of 43 and 37 percent, respectively.

- The European countries, Australia, Canada, and the United States exhibit large gaps, exceeding 80 percent.

- The United States has the largest gap in absolute terms (US$ 18.85 billion); however, the distinction of having the largest percentage gap goes to France at 128 percent.

- A more distinct pattern emerges with respect to categories with the largest relative differences. Machinery and transportation equipment, miscellaneous manufactured goods, and goods not classified by kind are most likely to exhibit significant gaps.

Next we turn to a slightly more detailed breakdown of trade and focus on the absolute level of the gaps in statistics. Tables 16 and 17 show the six SITC two-digit categories with the largest absolute discrepancies between China and her major trading partners for trade flows to China and from China, respectively. For trade flows to China (Table 16):

- Chinese trade statistics overestimate the value of imports as compared to trading partners' estimates in the aggregate, although there are individual categories of trade where the reverse is true.

- Discrepancies are most likely to be large for trade in machinery.

- China exhibits major discrepancies in cereal import statistics with Canada, Australia, France, and the United States.

- The largest gap for the U.S. shows nearly US$ 1 billion more in other transport sales (primarily airplanes) to China.

Table 15a. Percentage Difference Between China's Reported Exports and Trading Partner's Reported Imports, 1992

SITC Rev-3 Code/DESC	Japan	Germany	S Korea	Singapore	Italy	Canada	Australia	France	U.S.	Taiwan	Hong Kong
Total	-37	-101	-43	-10	-87	-103	-88	-128	-105	-8	-20
0 FOOD & LIVE ANIMALS											
1 BEVERAGES & TOBACCO					-67		200			200	
2 CR MAT INEDIBLE			-81					-122		-130	-27
3 MIN FUELS LUBRICANTS							-133				
4 ANIMAL VEG OILS FATS		-133		-120	-67						
5 CHEMICALS											
6 MANUFACTURED GOODS			-60								
7 MACH & TRANS EQUIP	-52	-133		-54	-152	-141		-169	-122	188	
8 MISC MANUFACTURED	-63				-109	-114		-141	-120		
9 GOODS NOT CLAS BY KIN	-192	-192	67	-120		-200	-200		-174		-177

Table 15b. Difference Between China's Reported Exports and Trading Partner's Reported Imports, 1992
(in million US$)

SITC Rev-3 Code/DESC	Japan	Germany	S Korea	Singapore	Italy	Canada	Australia	France	U.S.	Taiwan	Hong Kong
Total	-5247	-5039	-1320	-221	-1684	-1374	-1043	-2739	-18851	-54	-8286
0 FOOD & LIVE ANIMALS											
1 BEVERAGES & TOBACCO					-1		3			2	
2 CR MAT INEDIBLE			-215					-6		-196	-171
3 MIN FUELS LUBRICANTS							-8				
4 ANIMAL VEG OILS FATS		-8		-3	-1						21
5 CHEMICALS											
6 MANUFACTURED GOODS			-599								
7 MACH & TRANS EQUIP	-400	-968		-155	-353	-274		4	-3545	112	
8 MISC MANUFACTURED	-3363				-1029	-906		-32	-13373		
9 GOODS NOT CLAS BY KIN	-49	-46	1	-3		-11	-37		-354		-283

Note: The three categories chosen for each trading partner are those with the largest percentage gap. In case of ties, the category with largest absolute gap was selected.

$$\text{Percentage difference} = \frac{\text{China's Reported X - Trading Partner's Reported M}}{\frac{(\text{China's Reported X + Trading Partner's Reported M})}{2}}$$

Source: United Nations commodity trade data, SITC revision 3. Taiwan reported data from Taiwan's Ministry of Finance, harmonized system converted to SITC revision 3.

Table 16. Difference Between China's Reported Imports and Trading Partner's Reported Exports, 1992
(in million US$)

SITC Revision-3 Code/DESC	Japan	Germany	South Korea	Singapore	Italy	Canada	Australia	France	U.S.	Taiwan	Hong Kong
TOTAL TRADE	1756	320	-31	124	251	62	288	101	1431	5865	12528
00 LIVE ANIMALS											
01 MEAT											
02 DAIRY PRODS & EGGS											
03 FISH											
04 CEREALS						-159	33	95	177		
05 FRUIT & VEGETABLES											
06 SUGAR & HONEY							42				
07 COFFEE.TEA.COCOA.SPICES											
08 FEEDING STUFF FOR ANIMALS											
09 MISC FOOD PREPARATIONS											
11 BEVERAGES											
12 TOBACCO											
21 HIDES.SKINS.FURSKINS											
22 OIL-SEEDS.NUTS & KERNELS											
23 CRUDE RUBBER				-35							
24 WOOD.LUMBER.CORK											
25 PULP & WASTE PAPER						28					
26 TEXTILE FIBRES					114	-34	67				
27 CRUDE FERTILIZERS & MINERAL											
28 METALLIFEROUS ORES. SCRAP							300				
29 CRUDE ANIMAL.VEG MATRLS.NES											
32 COAL.COKE & BRIQUETTES											
33 PETROLEUM. PETROLEUM PRODUC				438			23				
34 GAS.NATURAL & MFG											
35 ELECTRIC ENERGY											
41 ANIMAL OILS AND FATS											
42 FIXED VEG OILS & FATS		43									
43 PROCESSED ANIMAL. VEG. OILS				-62							

Table 16. Difference Between China's Reported Imports and Trading Partner's Reported Exports, 1992 (continued)
(in million US$)

SITC Revision-3 Code/DESC	Japan	Germany	South Korea	Singapore	Italy	Canada	Australia	France	U.S.	Taiwan	Hong Kong
51 ORGANIC CHEMICALS		59		-38							
52 INORGANIC CHEMICALS											
53 DYEING.TANNING.COLORING MTR											
54 MEDICINAL.PHARMACEUTICAL PR											
55 ESSENTIAL OILS & PERFUME											
56 FERTILIZERS. MFG						55			218		
57 PLASTICS IN PRIMARY FORM			30						224	292	1120
58 PLASTICS IN NON-PRIMARY FORM											
59 CHEMICAL MATERIALS. PRODS.N											
61 LEATHER & DRESSED FURSKINS			22							321	358
62 RUBBER MFGS.NES											
63 WOOD & CORK MFGS											
64 PAPER & PAPERBOARD											
65 TEXTILE YARN & FABRICS									235	924	3578
66 NON-METALLIC MINERAL MFGS.N											
67 IRON AND STEEL	351		-112		-46			-36			
68 NON-FERROUS METALS							24				
69 MANUFACTURERS OF METAL.NES			-37								
71 POWER GEN. MACHINERY	142				79						
72 SPECIAL INDUSTRY MACH.	725	286	49		83	26		36		1271	924
73 METAL WORKING MACHINERY		53			99						
74 GENERAL INDUSTRIAL MACH					-56					288	
75 OFFICE MACHINES. A.D.P	144										
76 TELECOMMUNICATIONS EQUIP	-507			-43							
77 ELECTRICAL MACHINERY	206		24					16		349	1866
78 ROAD VEHICLES		-93				-71					
79 OTHER TRANSPORT				-36				-22	-976		
81 PREFAB BLDG, SANITARY.ETC											
82 FURNITURE											
83 TRAVEL GOODS.HANDBAGS											
84 CLOTHING											
85 FOOTWEAR											
87 SCIENTIFIC INSTRUMENTS.		32						-18	135		
88 PHOTOGRAPHIC APPARATUS											430
89 MISC MFG ARTICLES.NES											
Six categories share of total discrepancy (percent)	60	119	77	181	109	-250	170	70	1	59	66

Source: United Nations commodity trade data, SITC revision 3. Taiwan reported data from Taiwan's Ministry of Finance, harmonized system converted to SITC revision 3.

For trade flows from China to the major trading partners a strong pattern of discrepancies emerges (Table 17).

- All major gaps are the result of an undervaluation of China's reported exports relative to the valuation of trading partners' reported imports with the exception of several categories for Singapore and Taiwan. (Note: China's trade statistics did not differ much in the aggregate from these two countries' statistics.)

- Discrepancies in trade flows from China are concentrated among light manufactured goods, in particular clothing, footwear, travel goods, toys, umbrellas, and other miscellaneous manufactured goods.

- Discrepancies are also large and concentrated in telecommunications and electrical machinery trade.

In some cases the largest discrepancies are associated with products which constitute a major portion of total trade (Table 18). On the import side, for example, machinery and transport equipment represent 38 percent of China's total imports. The biggest gaps for China's exports occur in Section 8 trade, in part, because this category accounts for 40 percent of China's total exports. These goods also are commonly shipped through Hong Kong. On the other hand, cereals represent only 2 percent of China's total imports yet sizeable discrepancies in trade of this product still occur. In a number of instances U.S. grain is exported to Canada and later exported by Canada to China. This routing of cereal trade may explain these discrepancies. From information obtained in the ongoing U.S.-China trade reconciliation, it appears China did not properly record several aircraft purchases from the U.S. in 1992 and 1993. In some cases, the rental value on leased aircraft was mistakenly recorded instead of the full value of the aircraft.

Table 17. Difference Between China's Reported Exports and Trading Partner's Reported Imports, 1992
(in million US$)

SITC Revision-3 Code/DESC	Japan	Germany	South Korea	Singapore	Italy	Canada	Australia	France	U.S.	Taiwan	Hong Kong
TOTAL TRADE	-5247	-5039	-1320	-221	-1684	-1374	-1043	-2739	-18851	-54	-8286
00 LIVE ANIMALS											
01 MEAT											
02 DAIRY PRODS & EGGS											
03 FISH											
04 CEREALS			-161								
05 FRUIT & VEGETABLES	-225			-79							
06 SUGAR & HONEY											
07 COFFEE.TEA.COCOA.SPICES											
08 FEEDING STUFF FOR ANIMALS											
09 MISC FOOD PREPARATIONS											
11 BEVERAGES											
12 TOBACCO											
21 HIDES.SKINS.FURSKINS											
22 OIL-SEEDS.NUTS & KERNELS											
23 CRUDE RUBBER											
24 WOOD.LUMBER.CORK											
25 PULP & WASTE PAPER											
26 TEXTILE FIBRES			-107								
27 CRUDE FERTILIZERS & MINERAL										-64	
28 METALLIFEROUS ORES. SCRAP											
29 CRUDE ANIMAL.VEG MATRLS.NES			-66							-100	
32 COAL.COKE & BRIQUETTES			-57								
33 PETROLEUM. PETROLEUM PRODUC				114							
34 GAS.NATURAL & MFG											
35 ELECTRIC ENERGY											
41 ANIMAL OILS AND FATS											
42 FIXED VEG OILS & FATS											
43 PROCESSED ANIMAL. VEG. OILS											

Table 17. Difference Between China's Reported Exports and Trading Partner's Reported Imports, 1992 (continued)
(in million US$)

SITC Revision-3 Code/DESC	Japan	Germany	South Korea	Singapore	Italy	Canada	Australia	France	U.S.	Taiwan	Hong Kong
51 ORGANIC CHEMICALS											
52 INORGANIC CHEMICALS											
53 DYEING.TANNING.COLORING MTR											
54 MEDICINAL.PHARMACEUTICAL PR											
55 ESSENTIAL OILS & PERFUME											
56 FERTILIZERS. MFG											
57 PLASTICS IN PRIMARY FORM											
58 PLASTICS IN NON-PRIMARY FORM											
59 CHEMICAL MATERIALS. PRODS.N											
61 LEATHER & DRESSED FURSKINS											
62 RUBBER MFGS.NES											
63 WOOD & CORK MFGS											
64 PAPER & PAPERBOARD											
65 TEXTILE YARN & FABRICS	-263		-461		-82						-563
66 NON-METALLIC MINERAL MFGS.N			-75								
67 IRON AND STEEL										-42	
68 NON-FERROUS METALS										-34	
69 MANUFACTURERS OF METAL.NES											
71 POWER GEN. MACHINERY											
72 SPECIAL INDUSTRY MACH.											
73 METAL WORKING MACHINERY											
74 GENERAL INDUSTRIAL MACH											
75 OFFICE MACHINES. A.D.P				-24							
76 TELECOMMUNICATIONS EQUIP		-461		-47	-153	-90	-66	-287	-1707		-979
77 ELECTRICAL MACHINERY		-284		-33		-97	-68	-141	-1260	53	
78 ROAD VEHICLES											
79 OTHER TRANSPORT				-25							
81 PREFAB BLDG, SANITARY.ETC											
82 FURNITURE											
83 TRAVEL GOODS.HANDBAGS	-255	-341			-140	-120	-86	-244	-1044		-940
84 CLOTHING	-2020	-1537			-253	-232	-248	-433	-3772	42	-1211
85 FOOTWEAR	-319	-221				-103	-94	-151	-2129		-1912
87 SCIENTIFIC INSTRUMENTS.											
88 PHOTOGRAPHIC APPARATUS											
89 MISC MFG ARTICLES.NES	-631	-997			-97						
					-492	-371	-219	-678	-5613		-865
Six categories share of total discrepancy (percent)	71	76	70	43	72	74	75	71	82	269	78

Source: United Nations commodity trade data, SITC revision 3. Taiwan reported data from Taiwan's Ministry of Fi...

Table 18. Distribution of China's Imports and Exports by Category, 1992

SITC Revision-3 Code/DESC	China Trade with World (Percent) Imports	Exports
TOTAL TRADE	100.00	100.00
0 FOOD & LIVE ANIMALS	3.90	9.78
00 LIVE ANIMALS	.02	.56
01 MEAT	.07	.68
02 DAIRY PRODS & EGGS	.08	.07
03 FISH	.41	1.84
04 CEREALS	2.13	1.90
05 FRUIT & VEGETABLES	.12	2.43
06 SUGAR & HONEY	.34	.93
07 COFFEE.TEA.COCOA.SPICES	.08	.59
08 FEEDING STUFF FOR ANIMALS	.57	.59
09 MISC FOOD PREPARATIONS	.08	.19
1 BEVERAGES & TOBACCO	.30	.85
11 BEVERAGES	.04	.33
12 TOBACCO	.25	.52
2 CRUDE MATERIALS.INEDIBLE	7.16	3.69
21 HIDES.SKINS.FURSKINS	.19	.05
22 OIL-SEEDS.NUTS & KERNELS	.04	.55
23 CRUDE RUBBER	.51	.02
24 WOOD.LUMBER.CORK	.76	.25
25 PULP & WASTE PAPER	.51	.00
26 TEXTILE FIBRES	2.70	1.06
27 CRUDE FERTILIZERS & MINERAL	.08	.67
28 METALLIFEROUS ORES. SCRAP	2.16	.16
29 CRUDE ANIMAL.VEG MATRLS.NES	.21	.93
3 MINERALS FUELS.LUBRICANTS	4.43	5.52
32 COAL.COKE & BRIQUETTES	.05	.99
33 PETROLEUM. PETROLEUM PRODUC	3.92	4.52
34 GAS.NATURAL & MFG	.10	.01
35 ELECTRIC ENERGY	.35	.01
4 ANIMAL.VEGETABLE OILS. FATS	.65	.16
41 ANIMAL OILS AND FATS	.03	.00
42 FIXED VEG OILS & FATS	.60	.15
43 PROCESSED ANIMAL. VEG. OILS	.01	.01
5 CHEMICALS	13.88	5.12
51 ORGANIC CHEMICALS	2.15	1.20
52 INORGANIC CHEMICALS	.29	1.23
53 DYEING.TANNING.COLORING MTR	.64	.42
54 MEDICINAL.PHARMACEUTICAL PR	.59	1.05
55 ESSENTIAL OILS & PERFUME	.19	.28
56 FERTILIZERS. MFG	3.72	.03
57 PLASTICS IN PRIMARY FORM	4.42	.15
58 PLASTICS IN NON-PRIMARY FORM	.86	.16
59 CHEMICAL MATERIALS. PRODS.N	1.03	.59

Table 18. Distribution of China's Imports and Exports by Category, 1992 (continued)

SITC Revision-3 Code/DESC		China Trade with World (Percent) Imports	Exports
6	MANUFACTURED GOODS	23.92	19.00
61	LEATHER & DRESSED FURSKINS	1.46	.24
62	RUBBER MFGS.NES	.18	.31
63	WOOD & CORK MFGS	.99	.59
64	PAPER & PAPERBOARD	1.91	.51
65	TEXTILE YARN & FABRICS	9.38	10.10
66	NON-METALLIC MINERAL MFGS.N	.82	2.01
67	IRON AND STEEL	5.50	1.56
68	NON-FERROUS METALS	2.56	.86
69	MANUFACTURERS OF METAL.NES	1.13	2.81
7	MACHINERY & TRANSPORT EQUIP	38.17	15.54
71	POWER GEN. MACHINERY	2.86	.89
72	SPECIAL INDUSTRY MACH.	10.28	.79
73	METAL WORKING MACHINERY	1.86	.31
74	GENERAL INDUSTRIAL MACH	3.79	1.40
75	OFFICE MACHINES. A.D.P	1.55	1.33
76	TELECOMMUNICATIONS EQUIP	4.22	4.57
77	ELECTRICAL MACHINERY	6.09	3.87
78	ROAD VEHICLES	4.37	1.37
79	OTHER TRANSPORT	3.16	1.02
8	MISCELLANEOUS MANUFACTURED	6.86	39.85
81	PREFAB BLDG, SANITARY.ETC	.17	.49
82	FURNITURE	.10	.97
83	TRAVEL GOODS.HANDBAGS	.06	1.74
84	CLOTHING	.54	19.67
85	FOOTWEAR	.47	4.99
87	SCIENTIFIC INSTRUMENTS.	1.59	.47
88	PHOTOGRAPHIC APPARATUS	1.74	2.17
89	MISC MFG ARTICLES.NES	2.19	9.36
9	GOODS NOT CLASSIFIED BY KIN	.73	.48

Source: United Nations commodity trade data, SITC revision 3.

VI. RECENT AND FUTURE CHANGES IN SOURCES OF DISCREPANCIES

This study has focused on 1992 trade statistics as reported by China and her major trading partners. Several changes have already occurred which affect the discrepancies in more recent trade statistics. In this section these changes and their effect on the discrepancy are discussed as well as anticipated future sources of discrepancy.

Smuggling China has in place several measures designed to discourage and deal with smuggling. China's regulations state that anyone who tries to evade customs tariff by giving false or distorted information about the prices of import and export goods is subject to confiscation of any gains and a fine up to three times the amount of the evaded tariff. If false information is given regarding the description of the goods, their quantity, specifications, prices, place of origin, transaction form, consumer country, country involved in the transaction or other information that must be declared, the fine is the value of the goods in question or not more than two times the amount of the payable tariff (He 1993).

China's General Administration of Customs reports they are stepping up their anti-smuggling efforts. A centralized anti-smuggling headquarters in charge of special investigations is being established in customs. The customs national internal intelligence network is to be linked with other law-enforcement and intelligence departments (Liang 1994a). Starting in 1994, customs inspectors patrolling the sea have been given broader authority to shoot violent and armed smugglers who refuse or resist examination (Liang, 1994b). Of course, some of the smuggling is done with assistance from customs officials (Liang, 1994c).

Another reform which will help control smuggling is the change in examination procedures at the various checking ports. Enterprises are being placed into one of three classes depending on their previous track record with customs. Customs will focus on those companies with poor or unknown records by paying more attention to the management and accounts of these enterprises. It is hoped that the establishment of service oriented customs brokers also will reduce smuggling and false declarations. Businesses offering broker services would be responsible to both customs authorities and the enterprises engaged in foreign trade. Customs has been given permission to establish and carry out its own auditing system in 1994. (Liang 1994a).

If China is required to lower prohibitive tariffs and remove controls on imports as a condition of GATT membership, smuggling can be expected to decline. Reduction in smuggling would lead to an increase in imports reported by China and a decrease in the discrepancy on trade flows to China.

Bonded Zones China's use of special trade statistics excludes goods imported and exported by the bonded zones. In 1992 the volume of activity in the bonded zones was small, hence the exclusion had a negligible impact on the overall discrepancy. However, the potential is there for the effect to increase as the number of operational bonded zones grows and processing within the existing zones increases.

Starting in 1993, China began reporting imports and exports separately for bonded areas. In 1993 total exports from bonded areas was reported to be US$ 197.18 million and

total imports US$ 228.65 million. China's Ministry of Foreign Trade and Economic Cooperation informed the U.S.-China trade reconciliation team that China has no estimates of trade which does not pass through customs boundaries. Therefore, it is assumed these statistics reflect exports coming from inside China's customs area that pass through bonded zones to the international market and imports that pass through bonded zones into China for domestic use. China's use of special trade statistics is expected to affect trade flows in both directions. However, the discrepancy for trade flows from China should be larger, with the United States and other major partners reporting imports exceeding China's reported exports to these countries.

Shipment Through Hong Kong Prior to 1993 China's recording of exports to the U.S. that were shipped through Hong Kong as exports to Hong Kong is the single largest contributor to the trade statistics discrepancy between the two countries. This difference in partner country attribution also was the major source of discrepancy between China and other trading partners (France, Canada, Germany, Australia, Italy, South Korea, and Japan). While some overlap likely existed before 1993 in China's reported exports to the U.S. and Hong Kong reexports of China's goods to the U.S, the overlap increases tremendously when China began to record much of the indirect trade as destined for the consuming country. (See Appendix B for more information on the increase in the overlap.)

Starting in 1993, China Customs improved the verification of the declared destination for exports. Customs inspectors began to inquire as to the final consuming country on shipments. Inspectors also increased spot checks of cargo which frequently revealed labels indicating a second destination after Hong Kong. As a result, China's published export statistics to EEC countries, the United States, Canada, and Australia took a dramatic leap upward in 1993 over 1992 (Table 19).[25]

Hong Kong Reexport Margin There is mixed information on changes in the Hong Kong reexport margin over time. The Hong Kong Trade Development Council indicates the margin on reexports of China origin averaged 16 percent in both 1988 and 1991. However, Hong Kong Census and Statistics Department officials reported an increasing trend in the margin, rising from 13 percent in 1988 to 25 percent in 1993. The reexport margin on goods of other than China origin averaged 14 percent in 1991. The role of Hong Kong businesses in China's trade has been expanding for over a decade. If the margin rises further, the discrepancy will expand on trade flows in both directions. There is a limit, however, to increases in the margin. If the reexport margin increased much beyond 30 percent, the issue of a change in country of origin would arise.

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[25] General Administration of Customs of the People's Republic of China (1994, p. 7) noted the improvement and stated that the 1993 trade figures for certain countries or regions were not comparable to 1992 trade figures. The only such countries for which they chose not to present comparative trade statistics for the previous year were Hong Kong, the EEC countries, and United States.

Table 19. Change in China's Reported Exports to Selected Countries (in million US$)

Country	1992	1993	Percentage Change
Hong Kong	37,512	22,064	-41.2
EEC	7,601	11,693	53.8
Germany	2,448	3,968	62.1
France	764	1,291	69.0
Italy	1,095	1,305	19.2
Canada	653	1,198	83.3
Australia	661	1,061	60.5
United States	8,594	16,964	97.4
World	84,998	91,763	8.0

Sources: General Administration of Customs of the People's Republic of China 1993a and 1994.

APPENDIX A
TABLES

These tables show at the 1 and 2 digit SITC level the absolute and relative difference between Chinese and partner country data for imports and exports in 1992.

Table A-1. 1992 Trade Flow from U.S. to China

SITC Revision-3 Code/DESC	China reported imports from U.S.	U.S. reported exports to China	Difference between China imports and U.S. exports	Percent difference China imports and U.S. exports
	[in million U.S. dollars]			
TOTAL TRADE	8901	7470	1431	17
0 FOOD & LIVE ANIMALS	598	323	275	60
00 LIVE ANIMALS	11	10	1	10
01 MEAT	31	7	24	126
02 DAIRY PRODS & EGGS	6	1	5	143
03 FISH	46	19	27	83
04 CEREALS	450	273	177	49
05 FRUIT & VEGETABLES	19	6	13	104
06 SUGAR & HONEY	2	1	1	67
07 COFFEE.TEA.COCOA.SPICES	1	1	0	0
08 FEEDING STUFF FOR ANIMALS	22	3	19	152
09 MISC FOOD PREPARATIONS	10	3	7	108
1 BEVERAGES & TOBACCO	30	11	19	93
11 BEVERAGES	1	0	1	200
12 TOBACCO	29	11	18	90
2 CRUDE MATERIALS.INEDIBLE	832	675	157	21
21 HIDES.SKINS.FURSKINS	24	9	15	91
22 OIL-SEEDS.NUTS & KERNELS	16	30	-14	-61
23 CRUDE RUBBER	8	6	2	29
24 WOOD.LUMBER.CORK	172	134	38	25
25 PULP & WASTE PAPER	118	61	57	64
26 TEXTILE FIBRES	313	283	30	10
27 CRUDE FERTILIZERS & MINERAL	8	5	3	46
28 METALLIFEROUS ORES. SCRAP	136	138	-2	-1
29 CRUDE ANIMAL.VEG MATRLS.NES	36	9	27	120
3 MINERALS FUELS.LUBRICANTS	271	200	71	30
32 COAL.COKE & BRIQUETTES	0	5	-5	-200
33 PETROLEUM. PETROLEUM PRODUC	269	195	74	32
34 GAS.NATURAL & MFG	1	0	1	200
35 ELECTRIC ENERGY	0	0	0	0
4 ANIMAL.VEGETABLE OILS. FATS	13	9	4	36
41 ANIMAL OILS AND FATS	0	0	0	0
42 FIXED VEG OILS & FATS	13	9	4	36
43 PROCESSED ANIMAL. VEG. OILS	0	1	-1	-200
5 CHEMICALS	1901	1211	690	44
51 ORGANIC CHEMICALS	339	206	133	49
52 INORGANIC CHEMICALS	34	32	2	6
53 DYEING.TANNING.COLORING MTR	41	44	-3	-7
54 MEDICINAL.PHARMACEUTICAL PR	32	24	8	29
55 ESSENTIAL OILS & PERFUME	27	12	15	77
56 FERTILIZERS. MFG	847	629	218	30
57 PLASTICS IN PRIMARY FORM	423	199	224	72
58 PLASTICS IN NON-PRIMARY FORM	32	18	14	56
59 CHEMICAL MATERIALS. PRODS.N	126	46	80	93

Table A-1. 1992 Trade Flow from U.S. to China (continued)

SITC Revision-3 Code/DESC	China reported imports from U.S. [in million U.S.	U.S. reported exports to China dollars]	Difference between China imports and U.S. exports	Percent difference China imports and U.S. exports
6 MANUFACTURED GOODS	943	452	491	70
61 LEATHER & DRESSED FURSKINS	51	7	44	152
62 RUBBER MFGS.NES	7	3	4	80
63 WOOD & CORK MFGS	13	2	11	147
64 PAPER & PAPERBOARD	199	110	89	58
65 TEXTILE YARN & FABRICS	276	41	235	148
66 NON-METALLIC MINERAL MFGS.N	32	23	9	33
67 IRON AND STEEL	130	72	58	57
68 NON-FERROUS METALS	176	165	11	6
69 MANUFACTURERS OF METAL.NES	58	30	28	64
7 MACHINERY & TRANSPORT EQUIP	3674	4033	-359	-9
71 POWER GEN. MACHINERY	302	275	27	9
72 SPECIAL INDUSTRY MACH.	548	426	122	25
73 METAL WORKING MACHINERY	134	113	21	17
74 GENERAL INDUSTRIAL MACH	341	278	63	20
75 OFFICE MACHINES. A.D.P	295	172	123	53
76 TELECOMMUNICATIONS EQUIP	295	235	60	23
77 ELECTRICAL MACHINERY	296	214	82	32
78 ROAD VEHICLES	377	258	119	37
79 OTHER TRANSPORT	1085	2061	-976	-62
8 MISCELLANEOUS MANUFACTURED	603	465	138	26
81 PREFAB BLDG, SANITARY.ETC	19	22	-3	-15
82 FURNITURE	4	5	-1	-22
83 TRAVEL GOODS.HANDBAGS	0	0	0	0
84 CLOTHING	3	5	-2	-50
85 FOOTWEAR	5	3	2	50
87 SCIENTIFIC INSTRUMENTS.	470	335	135	34
88 PHOTOGRAPHIC APPARATUS	32	31	1	3
89 MISC MFG ARTICLES.NES	70	63	7	11
9 GOODS NOT CLASSIFIED BY KIN	37	90	-53	-83

Source: United Nations commodity trade data, SITC revision 3.

Table A-2. 1992 Trade Flow from China to U.S.

SITC Revision-3 Code/DESC	China reported exports to U.S.	U.S. reported imports from China	Difference between China exports and U.S. imports	Percent difference China exports and U.S. imports
	[in million U.S. dollars]			
TOTAL TRADE	8599	27450	-18851	-105
0 FOOD & LIVE ANIMALS	471	694	-223	-38
00 LIVE ANIMALS	0	0	0	0
01 MEAT	1	1	0	0
02 DAIRY PRODS & EGGS	1	1	0	0
03 FISH	301	440	-139	-38
04 CEREALS	1	11	-10	-167
05 FRUIT & VEGTABLES	88	134	-46	-41
06 SUGAR & HONEY	21	31	-10	-38
07 COFFEE.TEA.COCOA.SPICES	52	61	-9	-16
08 FEEDING STUFF FOR ANIMALS	0	0	0	0
09 MISC FOOD PREPARATIONS	5	14	-9	-95
1 BEVERAGES & TOBACCO	19	28	-9	-38
11 BEVERAGES	10	12	-2	-18
12 TOBACCO	9	16	-7	-56
2 CRUDE MATERIALS.INEDIBLE	150	224	-74	-40
21 HIDES.SKINS.FURSKINS	0	1	-1	-200
22 OIL-SEEDS.NUTS & KERNELS	1	2	-1	-67
23 CRUDE RUBBER	0	0	0	0
24 WOOD.LUMBER.CORK	1	1	0	0
25 PULP & WASTE PAPER	0	0	0	0
26 TEXTILE FIBRES	8	8	0	0
27 CRUDE FERTILIZERS & MINERAL	63	62	1	2
28 METALLIFEROUS ORES. SCRAP	14	28	-14	-67
29 CRUDE ANIMAL.VEG MATRLS.NES	64	122	-58	-62
3 MINERALS FUELS.LUBRICANTS	532	570	-38	-7
32 COAL.COKE & BRIQUETTES	0	0	0	0
33 PETROLEUM. PETROLEUM PRODUC	531	570	-39	-7
34 GAS.NATURAL & MFG	0	0	0	0
35 ELECTRIC ENERGY	0	0	0	0
4 ANIMAL.VEGETABLE OILS. FATS	1	2	-1	-67
41 ANIMAL OILS AND FATS	0	0	0	0
42 FIXED VEG OILS & FATS	1	1	0	0
43 PROCESSED ANIMAL. VEG. OILS	0	0	0	0
5 CHEMICALS	443	547	-104	-21
51 ORGANIC CHEMICALS	77	120	-43	-44
52 INORGANIC CHEMICALS	115	136	-21	-17
53 DYEING.TANNING.COLORING MTR	27	37	-10	-31
54 MEDICINAL.PHARMACEUTICAL PR	129	103	26	22
55 ESSENTIAL OILS & PERFUME	15	35	-20	-80
56 FERTILIZERS. MFG	0	0	0	0
57 PLASTICS IN PRIMARY FORM	11	11	0	0
58 PLASTICS IN NON-PRIMARY FORM	2	5	-3	-86
59 CHEMICAL MATERIALS. PRODS.N	67	99	-32	-39

Table A-2. 1992 Trade Flow from China to U.S. (continued)

SITC Revision-3 Code/DESC	China reported exports to U.S.	U.S. reported imports from China	Difference between China exports and U.S. imports	Percent difference China exports and U.S. imports
	[in million U.S. dollars]			
6 MANUFACTURED GOODS	1352	2481	-1129	-59
61 LEATHER & DRESSED FURSKINS	5	14	-9	-95
62 RUBBER MFGS.NES	14	26	-12	-60
63 WOOD & CORK MFGS	53	120	-67	-77
64 PAPER & PAPERBOARD	7	100	-93	-174
65 TEXTILE YARN & FABRICS	676	982	-306	-37
66 NON-METALLIC MINERAL MFGS.N	147	386	-239	-90
67 IRON AND STEEL	62	65	-3	-5
68 NON-FERROUS METALS	60	93	-33	-43
69 MANUFACTURERS OF METAL.NES	327	694	-367	-72
7 MACHINERY & TRANSPORT EQUIP	1135	4680	-3545	-122
71 POWER GEN. MACHINERY	40	115	-75	-97
72 SPECIAL INDUSTRY MACH.	27	69	-42	-88
73 METAL WORKING MACHINERY	30	29	1	3
74 GENERAL INDUSTRIAL MACH	229	439	-210	-63
75 OFFICE MACHINES. A.D.P	126	564	-438	-127
76 TELECOMMUNICATIONS EQUIP	154	1861	-1707	-169
77 ELECTRICAL MACHINERY	139	1399	-1260	-164
78 ROAD VEHICLES	200	177	23	12
79 OTHER TRANSPORT	192	27	165	151
8 MISCELLANEOUS MANUFACTURED	4470	17843	-13373	-120
81 PREFAB BLDG, SANITARY.ETC	45	270	-225	-143
82 FURNITURE	203	397	-194	-65
83 TRAVEL GOODS.HANDBAGS	135	1179	-1044	-159
84 CLOTHING	1663	5435	-3772	-106
85 FOOTWEAR	1472	3601	-2129	-84
87 SCIENTIFIC INSTRUMENTS.	71	158	-87	-76
88 PHOTOGRAPHIC APPARATUS	65	372	-307	-141
89 MISC MFG ARTICLES.NES	817	6430	-5613	-155
9 GOODS NOT CLASSIFIED BY KIN	27	381	-354	-174

Source: United Nations commodity trade data, SITC revision 3.

Table A-3. 1992 Trade Flow from Japan to China

SITC Revision-3 Code/DESC	China reported imports from Japan	Japan reported exports to China	Difference between China imports and Japan exports	Percent difference China imports and Japan exports
	[in million U.S. dollars]			
TOTAL TRADE	13682	11926	1756	14
0 FOOD & LIVE ANIMALS	67	32	35	71
00 LIVE ANIMALS	0	0	0	0
01 MEAT	2	1	1	67
02 DAIRY PRODS & EGGS	1	0	1	200
03 FISH	21	6	15	111
04 CEREALS	8	3	5	91
05 FRUIT & VEGTABLES	1	0	1	200
06 SUGAR & HONEY	1	0	1	200
07 COFFEE.TEA.COCOA.SPICES	1	0	1	200
08 FEEDING STUFF FOR ANIMALS	22	11	11	67
09 MISC FOOD PREPARATIONS	10	9	1	11
1 BEVERAGES & TOBACCO	4	1	3	120
11 BEVERAGES	1	1	0	0
12 TOBACCO	3	0	3	200
2 CRUDE MATERIALS.INEDIBLE	328	347	-19	-6
21 HIDES.SKINS.FURSKINS	2	1	1	67
22 OIL-SEEDS.NUTS & KERNELS	0	0	0	0
23 CRUDE RUBBER	63	64	-1	-2
24 WOOD.LUMBER.CORK	1	0	1	200
25 PULP & WASTE PAPER	0	0	0	0
26 TEXTILE FIBRES	153	206	-53	-30
27 CRUDE FERTILIZERS & MINERAL	4	2	2	67
28 METALLIFEROUS ORES. SCRAP	93	70	23	28
29 CRUDE ANIMAL.VEG MATRLS.NES	12	4	8	100
3 MINERALS FUELS.LUBRICANTS	118	201	-83	-52
32 COAL.COKE & BRIQUETTES	0	0	0	0
33 PETROLEUM. PETROLEUM PRODUC	107	199	-92	-60
34 GAS.NATURAL & MFG	11	1	10	167
35 ELECTRIC ENERGY	0	0	0	0
4 ANIMAL.VEGETABLE OILS. FATS	4	1	3	120
41 ANIMAL OILS AND FATS	2	1	1	67
42 FIXED VEG OILS & FATS	2	0	2	200
43 PROCESSED ANIMAL. VEG. OILS	1	0	1	200
5 CHEMICALS	1288	1073	215	18
51 ORGANIC CHEMICALS	389	357	32	9
52 INORGANIC CHEMICALS	24	33	-9	-32
53 DYEING.TANNING.COLORING MTR	77	62	15	22
54 MEDICINAL.PHARMACEUTICAL PR	120	101	19	17
55 ESSENTIAL OILS & PERFUME	42	44	-2	-5
56 FERTILIZERS. MFG	3	1	2	100
57 PLASTICS IN PRIMARY FORM	405	276	129	38
58 PLASTICS IN NON-PRIMARY FORM	67	65	2	3
59 CHEMICAL MATERIALS. PRODS.N	161	135	26	18

Table A-3. 1992 Trade Flow from Japan to China (continued)

SITC Revision-3 Code/DESC	China reported imports from Japan	Japan reported exports to China	Difference between China imports and Japan exports	Percent difference China imports and Japan exports
	[in million U.S. dollars]			
6 MANUFACTURED GOODS	3673	3122	551	16
61 LEATHER & DRESSED FURSKINS	45	35	10	25
62 RUBBER MFGS.NES	47	37	10	24
63 WOOD & CORK MFGS	6	2	4	100
64 PAPER & PAPERBOARD	201	177	24	13
65 TEXTILE YARN & FABRICS	1072	967	105	10
66 NON-METALLIC MINERAL MFGS.N	171	172	-1	-1
67 IRON AND STEEL	1822	1471	351	21
68 NON-FERROUS METALS	197	119	78	49
69 MANUFACTURERS OF METAL.NES	112	140	-28	-22
7 MACHINERY & TRANSPORT EQUIP	7319	6332	987	14
71 POWER GEN. MACHINERY	492	350	142	34
72 SPECIAL INDUSTRY MACH.	2106	1381	725	42
73 METAL WORKING MACHINERY	212	150	62	34
74 GENERAL INDUSTRIAL MACH	921	889	32	4
75 OFFICE MACHINES. A.D.P	354	210	144	51
76 TELECOMMUNICATIONS EQUIP	930	1437	-507	-43
77 ELECTRICAL MACHINERY	966	760	206	24
78 ROAD VEHICLES	1198	1134	64	5
79 OTHER TRANSPORT	139	21	118	148
8 MISCELLANEOUS MANUFACTURED	881	724	157	20
81 PREFAB BLDG, SANITARY.ETC	18	12	6	40
82 FURNITURE	8	12	-4	-40
83 TRAVEL GOODS.HANDBAGS	2	1	1	67
84 CLOTHING	77	55	22	33
85 FOOTWEAR	6	2	4	100
87 SCIENTIFIC INSTRUMENTS.	273	211	62	26
88 PHOTOGRAPHIC APPARATUS	282	153	129	59
89 MISC MFG ARTICLES.NES	215	276	-61	-25
9 GOODS NOT CLASSIFIED BY KIN	1	93	-92	-196

Source: United Nations commodity trade data, SITC revision 3.

Table A-4. 1992 Trade Flow from China to Japan

SITC Revision-3 Code/DESC	China reported exports to Japan	Japan reported imports from China	Difference between China exports and Japan imports	Percent difference China exports and Japan imports
	[in million U.S. dollars]			
TOTAL TRADE	11679	16926	-5247	-37
0 FOOD & LIVE ANIMALS	2236	2730	-494	-20
00 LIVE ANIMALS	8	3	5	91
01 MEAT	160	158	2	1
02 DAIRY PRODS & EGGS	1	1	0	0
03 FISH	837	1007	-170	-18
04 CEREALS	307	361	-54	-16
05 FRUIT & VEGTABLES	682	907	-225	-28
06 SUGAR & HONEY	31	35	-4	-12
07 COFFEE.TEA.COCOA.SPICES	68	109	-41	-46
08 FEEDING STUFF FOR ANIMALS	105	138	-33	-27
09 MISC FOOD PREPARATIONS	38	11	27	110
1 BEVERAGES & TOBACCO	31	33	-2	-6
11 BEVERAGES	21	29	-8	-32
12 TOBACCO	10	3	7	108
2 CRUDE MATERIALS.INEDIBLE	930	1161	-231	-22
21 HIDES.SKINS.FURSKINS	5	6	-1	-18
22 OIL-SEEDS.NUTS & KERNELS	138	163	-25	-17
23 CRUDE RUBBER	1	0	1	200
24 WOOD.LUMBER.CORK	169	202	-33	-18
25 PULP & WASTE PAPER	0	1	-1	-200
26 TEXTILE FIBRES	213	221	-8	-4
27 CRUDE FERTILIZERS & MINERAL	183	277	-94	-41
28 METALLIFEROUS ORES. SCRAP	27	30	-3	-11
29 CRUDE ANIMAL.VEG MATRLS.NES	193	261	-68	-30
3 MINERALS FUELS.LUBRICANTS	2146	2379	-233	-10
32 COAL.COKE & BRIQUETTES	252	312	-60	-21
33 PETROLEUM. PETROLEUM PRODUC	1893	2067	-174	-9
34 GAS.NATURAL & MFG	0	0	0	0
35 ELECTRIC ENERGY	0	0	0	0
4 ANIMAL.VEGETABLE OILS. FATS	16	24	-8	-40
41 ANIMAL OILS AND FATS	0	1	-1	-200
42 FIXED VEG OILS & FATS	15	23	-8	-42
43 PROCESSED ANIMAL. VEG. OILS	0	0	0	0
5 CHEMICALS	554	605	-51	-9
51 ORGANIC CHEMICALS	142	150	-8	-5
52 INORGANIC CHEMICALS	217	237	-20	-9
53 DYEING.TANNING.COLORING MTR	12	10	2	18
54 MEDICINAL.PHARMACEUTICAL PR	57	68	-11	-18
55 ESSENTIAL OILS & PERFUME	21	22	-1	-5
56 FERTILIZERS. MFG	9	10	-1	-11
57 PLASTICS IN PRIMARY FORM	8	8	0	0
58 PLASTICS IN NON-PRIMARY FORM	3	3	0	0
59 CHEMICAL MATERIALS. PRODS.N	86	96	-10	-11

Table A-4. 1992 Trade Flow from China to Japan (continued)

SITC Revision-3 Code/DESC	China reported exports to Japan	Japan reported imports from China	Difference between China exports and Japan imports	Percent difference China exports and Japan imports
	[in million U.S. dollars]			
6 MANUFACTURED GOODS	1574	1990	-416	-23
61 LEATHER & DRESSED FURSKINS	8	11	-3	-32
62 RUBBER MFGS.NES	5	4	1	22
63 WOOD & CORK MFGS	111	128	-17	-14
64 PAPER & PAPERBOARD	22	28	-6	-24
65 TEXTILE YARN & FABRICS	772	1035	-263	-29
66 NON-METALLIC MINERAL MFGS.N	177	218	-41	-21
67 IRON AND STEEL	253	286	-33	-12
68 NON-FERROUS METALS	101	126	-25	-22
69 MANUFACTURERS OF METAL.NES	124	153	-29	-21
7 MACHINERY & TRANSPORT EQUIP	567	967	-400	-52
71 POWER GEN. MACHINERY	72	123	-51	-52
72 SPECIAL INDUSTRY MACH.	17	23	-6	-30
73 METAL WORKING MACHINERY	5	5	0	0
74 GENERAL INDUSTRIAL MACH	43	55	-12	-24
75 OFFICE MACHINES. A.D.P	39	56	-17	-36
76 TELECOMMUNICATIONS EQUIP	192	309	-117	-47
77 ELECTRICAL MACHINERY	153	350	-197	-78
78 ROAD VEHICLES	36	30	6	18
79 OTHER TRANSPORT	10	15	-5	-40
8 MISCELLANEOUS MANUFACTURED	3624	6987	-3363	-63
81 PREFAB BLDG, SANITARY.ETC	3	16	-13	-137
82 FURNITURE	66	140	-74	-72
83 TRAVEL GOODS.HANDBAGS	55	310	-255	-140
84 CLOTHING	2837	4857	-2020	-53
85 FOOTWEAR	187	506	-319	-92
87 SCIENTIFIC INSTRUMENTS.	25	29	-4	-15
88 PHOTOGRAPHIC APPARATUS	72	119	-47	-49
89 MISC MFG ARTICLES.NES	379	1010	-631	-91
9 GOODS NOT CLASSIFIED BY KIN	1	50	-49	-192

Source: United Nations commodity trade data, SITC revision 3.

Table A-5. 1992 Trade Flow from Taiwan to China

SITC Revision-3 Code/DESC	China reported imports from Taiwan [in million U.S. dollars]	Taiwan reported exports to China	Difference between China imports and Taiwan exports	Percent difference China imports and Taiwan exports
TOTAL TRADE	5866	1	5865	200
0 FOOD & LIVE ANIMALS	27	0	27	198
00 LIVE ANIMALS	0	0	0	0
01 MEAT	1	0	1	200
02 DAIRY PRODS & EGGS	1	0	1	200
03 FISH	2	0	2	200
04 CEREALS	0	0	0	0
05 FRUIT & VEGTABLES	1	0	1	200
06 SUGAR & HONEY	0	0	0	0
07 COFFEE.TEA.COCOA.SPICES	1	0	1	200
08 FEEDING STUFF FOR ANIMALS	19	0	19	200
09 MISC FOOD PREPARATIONS	1	0	1	160
1 BEVERAGES & TOBACCO	1	0	1	200
11 BEVERAGES	1	0	1	200
12 TOBACCO	0	0	0	0
2 CRUDE MATERIALS.INEDIBLE	261	1	260	199
21 HIDES.SKINS.FURSKINS	2	0	2	200
22 OIL-SEEDS.NUTS & KERNELS	0	0	0	0
23 CRUDE RUBBER	48	0	48	200
24 WOOD.LUMBER.CORK	3	0	3	200
25 PULP & WASTE PAPER	0	0	0	0
26 TEXTILE FIBRES	185	0	185	200
27 CRUDE FERTILIZERS & MINERAL	4	0	4	200
28 METALLIFEROUS ORES. SCRAP	6	1	5	155
29 CRUDE ANIMAL.VEG MATRLS.NES	12	0	12	200
3 MINERALS FUELS.LUBRICANTS	4	0	4	200
32 COAL.COKE & BRIQUETTES	0	0	0	0
33 PETROLEUM. PETROLEUM PRODUC	4	0	4	200
34 GAS.NATURAL & MFG	0	0	0	0
35 ELECTRIC ENERGY	0	0	0	0
4 ANIMAL.VEGETABLE OILS. FATS	2	0	2	200
41 ANIMAL OILS AND FATS	1	0	1	200
42 FIXED VEG OILS & FATS	1	0	1	200
43 PROCESSED ANIMAL. VEG. OILS	1	0	1	200
5 CHEMICALS	688	0	688	200
51 ORGANIC CHEMICALS	61	0	61	200
52 INORGANIC CHEMICALS	12	0	12	200
53 DYEING.TANNING.COLORING MTR	57	0	57	200
54 MEDICINAL.PHARMACEUTICAL PR	4	0	4	200
55 ESSENTIAL OILS & PERFUME	8	0	8	200
56 FERTILIZERS. MFG	7	0	7	200
57 PLASTICS IN PRIMARY FORM	292	0	292	200
58 PLASTICS IN NON-PRIMARY FORM	149	0	149	200
59 CHEMICAL MATERIALS. PRODS.N	100	0	100	200

Table A-5. 1992 Trade Flow from Taiwan to China (continued)

SITC Revision-3 Code/DESC	China reported imports from Taiwan [in million U.S.	Taiwan reported exports to China dollars]	Difference between China imports and Taiwan exports	Percent difference China imports and Taiwan exports
6 MANUFACTURED GOODS	1854	0	1854	200
61 LEATHER & DRESSED FURSKINS	321	0	321	200
62 RUBBER MFGS.NES	18	0	18	200
63 WOOD & CORK MFGS	9	0	9	200
64 PAPER & PAPERBOARD	205	0	205	200
65 TEXTILE YARN & FABRICS	924	0	924	200
66 NON-METALLIC MINERAL MFGS.N	33	0	33	200
67 IRON AND STEEL	87	0	87	200
68 NON-FERROUS METALS	104	0	104	200
69 MANUFACTURERS OF METAL.NES	153	0	153	200
7 MACHINERY & TRANSPORT EQUIP	2445	0	2445	200
71 POWER GEN. MACHINERY	43	0	43	200
72 SPECIAL INDUSTRY MACH.	1271	0	1271	200
73 METAL WORKING MACHINERY	172	0	172	200
74 GENERAL INDUSTRIAL MACH	288	0	288	200
75 OFFICE MACHINES. A.D.P	70	0	70	200
76 TELECOMMUNICATIONS EQUIP	159	0	159	200
77 ELECTRICAL MACHINERY	349	0	349	200
78 ROAD VEHICLES	90	0	90	200
79 OTHER TRANSPORT	4	0	4	200
8 MISCELLANEOUS MANUFACTURED	582	0	582	200
81 PREFAB BLDG, SANITARY.ETC	14	0	14	200
82 FURNITURE	5	0	5	200
83 TRAVEL GOODS.HANDBAGS	6	0	6	200
84 CLOTHING	17	0	17	199
85 FOOTWEAR	238	0	238	200
87 SCIENTIFIC INSTRUMENTS.	43	0	43	200
88 PHOTOGRAPHIC APPARATUS	74	0	74	200
89 MISC MFG ARTICLES.NES	185	0	185	200
9 GOODS NOT CLASSIFIED BY KIN	1	0	1	193

Sources: China reported data from United Nations commodity trade data, SITC revision 3; Taiwan reported data from Taiwan statistics of trade, harmonized system converted to SITC revision 3.

Table A-6. 1992 Trade Flow from China to Taiwan

SITC Revision-3 Code/DESC	China reported exports to Taiwan	Taiwan reported imports from China	Difference between China exports and Taiwan imports	Percent difference China exports and Taiwan imports
	[in million U.S. dollars]			
TOTAL TRADE	695	749	-54	-8
0 FOOD & LIVE ANIMALS	45	27	18	50
00 LIVE ANIMALS	0	0	0	0
01 MEAT	4	0	4	192
02 DAIRY PRODS & EGGS	0	0	0	0
03 FISH	31	2	29	178
04 CEREALS	1	0	1	200
05 FRUIT & VEGTABLES	9	21	-12	-81
06 SUGAR & HONEY	1	0	1	194
07 COFFEE.TEA.COCOA.SPICES	0	3	-3	-200
08 FEEDING STUFF FOR ANIMALS	0	1	-1	-200
09 MISC FOOD PREPARATIONS	0	0	0	-200
1 BEVERAGES & TOBACCO	2	0	2	200
11 BEVERAGES	0	0	0	0
12 TOBACCO	2	0	2	200
2 CRUDE MATERIALS.INEDIBLE	53	249	-196	-130
21 HIDES.SKINS.FURSKINS	0	0	0	0
22 OIL-SEEDS.NUTS & KERNELS	1	2	-1	-75
23 CRUDE RUBBER	0	0	0	0
24 WOOD.LUMBER.CORK	11	31	-20	-95
25 PULP & WASTE PAPER	0	0	0	-200
26 TEXTILE FIBRES	12	19	-7	-47
27 CRUDE FERTILIZERS & MINERAL	13	77	-64	-142
28 METALLIFEROUS ORES. SCRAP	3	7	-4	-77
29 CRUDE ANIMAL.VEG MATRLS.NES	13	113	-100	-159
3 MINERALS FUELS.LUBRICANTS	88	115	-27	-26
32 COAL.COKE & BRIQUETTES	81	106	-25	-26
33 PETROLEUM. PETROLEUM PRODUC	5	9	-4	-56
34 GAS.NATURAL & MFG	2	0	2	200
35 ELECTRIC ENERGY	0	0	0	0
4 ANIMAL.VEGETABLE OILS. FATS	3	13	-10	-125
41 ANIMAL OILS AND FATS	0	0	0	0
42 FIXED VEG OILS & FATS	3	13	-10	-125
43 PROCESSED ANIMAL. VEG. OILS	0	0	0	0
5 CHEMICALS	46	65	-19	-34
51 ORGANIC CHEMICALS	9	13	-4	-36
52 INORGANIC CHEMICALS	25	44	-19	-54
53 DYEING.TANNING.COLORING MTR	4	0	4	192
54 MEDICINAL.PHARMACEUTICAL PR	2	0	2	200
55 ESSENTIAL OILS & PERFUME	1	1	0	-13
56 FERTILIZERS. MFG	0	0	0	0
57 PLASTICS IN PRIMARY FORM	1	0	1	200
58 PLASTICS IN NON-PRIMARY FORM	1	0	1	200
59 CHEMICAL MATERIALS. PRODS.N	4	7	-3	-52

Table A-6. 1992 Trade Flow from China to Taiwan (continued)

SITC Revision-3 Code/DESC	China reported exports to Taiwan	Taiwan reported imports from China	Difference between China exports and Taiwan imports	Percent difference China exports and Taiwan imports
	[in million U.S. dollars]			
6 MANUFACTURED GOODS	201	215	-14	-7
61 LEATHER & DRESSED FURSKINS	2	6	-4	-93
62 RUBBER MFGS.NES	5	5	0	8
63 WOOD & CORK MFGS	13	3	10	125
64 PAPER & PAPERBOARD	5	0	5	199
65 TEXTILE YARN & FABRICS	34	4	30	160
66 NON-METALLIC MINERAL MFGS.N	20	17	3	16
67 IRON AND STEEL	75	117	-42	-43
68 NON-FERROUS METALS	30	64	-34	-73
69 MANUFACTURERS OF METAL.NES	18	0	18	198
7 MACHINERY & TRANSPORT EQUIP	116	4	112	188
71 POWER GEN. MACHINERY	7	0	7	200
72 SPECIAL INDUSTRY MACH.	5	0	5	187
73 METAL WORKING MACHINERY	3	0	3	189
74 GENERAL INDUSTRIAL MACH	11	2	9	152
75 OFFICE MACHINES. A.D.P	8	0	8	200
76 TELECOMMUNICATIONS EQUIP	22	0	22	200
77 ELECTRICAL MACHINERY	54	1	53	194
78 ROAD VEHICLES	5	1	4	134
79 OTHER TRANSPORT	1	0	1	200
8 MISCELLANEOUS MANUFACTURED	139	62	77	77
81 PREFAB BLDG, SANITARY.ETC	2	0	2	197
82 FURNITURE	5	0	5	199
83 TRAVEL GOODS.HANDBAGS	7	0	7	200
84 CLOTHING	43	1	42	194
85 FOOTWEAR	30	52	-22	-53
87 SCIENTIFIC INSTRUMENTS.	2	0	2	199
88 PHOTOGRAPHIC APPARATUS	19	0	19	199
89 MISC MFG ARTICLES.NES	30	9	21	104
9 GOODS NOT CLASSIFIED BY KIN	0	0	0	0

Sources: China reported data from United Nations commodity trade data, SITC revision 3; Taiwan reported data from Taiwan statistics of trade, harmonized system converted to SITC revision 3.

Table A-7. 1992 Trade Flow from Germany to China

SITC Revision-3 Code/DESC	China reported imports from Germany	Germany reported exports to China	Difference between China imports and Germany exports	Percent difference China imports and Germany exports
	[in million U.S. dollars]			
TOTAL TRADE	4015	3695	320	8
0 FOOD & LIVE ANIMALS	19	12	7	45
00 LIVE ANIMALS	0	1	-1	-200
01 MEAT	1	0	1	200
02 DAIRY PRODS & EGGS	8	8	0	0
03 FISH	0	0	0	0
04 CEREALS	0	0	0	0
05 FRUIT & VEGTABLES	1	0	1	200
06 SUGAR & HONEY	0	0	0	0
07 COFFEE.TEA.COCOA.SPICES	1	0	1	200
08 FEEDING STUFF FOR ANIMALS	5	2	3	86
09 MISC FOOD PREPARATIONS	2	0	2	200
1 BEVERAGES & TOBACCO	0	0	0	0
11 BEVERAGES	0	0	0	0
12 TOBACCO	0	0	0	0
2 CRUDE MATERIALS.INEDIBLE	67	62	5	8
21 HIDES.SKINS.FURSKINS	2	0	2	200
22 OIL-SEEDS.NUTS & KERNELS	0	0	0	0
23 CRUDE RUBBER	2	1	1	67
24 WOOD.LUMBER.CORK	0	0	0	0
25 PULP & WASTE PAPER	0	0	0	0
26 TEXTILE FIBRES	48	52	-4	-8
27 CRUDE FERTILIZERS & MINERAL	1	0	1	200
28 METALLIFEROUS ORES. SCRAP	12	6	6	67
29 CRUDE ANIMAL.VEG MATRLS.NES	3	2	1	40
3 MINERALS FUELS.LUBRICANTS	5	3	2	50
32 COAL.COKE & BRIQUETTES	0	0	0	0
33 PETROLEUM. PETROLEUM PRODUC	5	3	2	50
34 GAS.NATURAL & MFG	0	0	0	0
35 ELECTRIC ENERGY	0	0	0	0
4 ANIMAL.VEGETABLE OILS. FATS	59	17	42	111
41 ANIMAL OILS AND FATS	0	0	0	0
42 FIXED VEG OILS & FATS	59	16	43	115
43 PROCESSED ANIMAL. VEG. OILS	0	1	-1	-200
5 CHEMICALS	423	275	148	42
51 ORGANIC CHEMICALS	154	95	59	47
52 INORGANIC CHEMICALS	24	12	12	67
53 DYEING.TANNING.COLORING MTR	24	12	12	67
54 MEDICINAL.PHARMACEUTICAL PR	44	34	10	26
55 ESSENTIAL OILS & PERFUME	6	5	1	18
56 FERTILIZERS. MFG	64	43	21	39
57 PLASTICS IN PRIMARY FORM	50	34	16	38
58 PLASTICS IN NON-PRIMARY FORM	9	8	1	12
59 CHEMICAL MATERIALS. PRODS.N	48	32	16	40

Table A-7. 1992 Trade Flow from Germany to China (continued)

SITC Revision-3 Code/DESC	China reported imports from Germany	Germany reported exports to China	Difference between China imports and Germany exports	Percent difference China imports and Germany exports
	[in million U.S. dollars]			
6 MANUFACTURED GOODS	407	418	-11	-3
61 LEATHER & DRESSED FURSKINS	4	1	3	120
62 RUBBER MFGS.NES	5	6	-1	-18
63 WOOD & CORK MFGS	1	1	0	0
64 PAPER & PAPERBOARD	47	62	-15	-28
65 TEXTILE YARN & FABRICS	35	29	6	19
66 NON-METALLIC MINERAL MFGS.N	16	10	6	46
67 IRON AND STEEL	241	248	-7	-3
68 NON-FERROUS METALS	36	20	16	57
69 MANUFACTURERS OF METAL.NES	23	36	-13	-44
7 MACHINERY & TRANSPORT EQUIP	2861	2729	132	5
71 POWER GEN. MACHINERY	245	234	11	5
72 SPECIAL INDUSTRY MACH.	937	651	286	36
73 METAL WORKING MACHINERY	220	167	53	27
74 GENERAL INDUSTRIAL MACH	325	357	-32	-9
75 OFFICE MACHINES. A.D.P	13	13	0	0
76 TELECOMMUNICATIONS EQUIP	107	84	23	24
77 ELECTRICAL MACHINERY	194	189	5	3
78 ROAD VEHICLES	767	860	-93	-11
79 OTHER TRANSPORT	53	36	17	38
8 MISCELLANEOUS MANUFACTURED	173	148	25	16
81 PREFAB BLDG, SANITARY.ETC	3	1	2	100
82 FURNITURE	5	3	2	50
83 TRAVEL GOODS.HANDBAGS	0	0	0	0
84 CLOTHING	3	5	-2	-50
85 FOOTWEAR	0	0	0	0
87 SCIENTIFIC INSTRUMENTS.	132	100	32	28
88 PHOTOGRAPHIC APPARATUS	15	13	2	14
89 MISC MFG ARTICLES.NES	17	23	-6	-30
9 GOODS NOT CLASSIFIED BY KIN	1	30	-29	-187

Source: United Nations commodity trade data, SITC revision 3.

Table A-8. 1992 Trade Flow from China to Germany

SITC Revision-3 Code/DESC	China reported exports to Germany	Germany reported imports from China	Difference between China exports and Germany imports	Percent difference China exports and Germany imports
	[in million U.S. dollars]			
TOTAL TRADE	2448	7487	-5039	-101
0 FOOD & LIVE ANIMALS	215	318	-103	-39
00 LIVE ANIMALS	0	1	-1	-200
01 MEAT	10	12	-2	-18
02 DAIRY PRODS & EGGS	0	0	0	0
03 FISH	8	25	-17	-103
04 CEREALS	1	3	-2	-100
05 FRUIT & VEGTABLES	138	217	-79	-45
06 SUGAR & HONEY	8	10	-2	-22
07 COFFEE.TEA.COCOA.SPICES	12	14	-2	-15
08 FEEDING STUFF FOR ANIMALS	36	31	5	15
09 MISC FOOD PREPARATIONS	3	4	-1	-29
1 BEVERAGES & TOBACCO	10	17	-7	-52
11 BEVERAGES	1	2	-1	-67
12 TOBACCO	9	16	-7	-56
2 CRUDE MATERIALS.INEDIBLE	209	291	-82	-33
21 HIDES.SKINS.FURSKINS	1	1	0	0
22 OIL-SEEDS.NUTS & KERNELS	1	28	-27	-186
23 CRUDE RUBBER	1	1	0	0
24 WOOD.LUMBER.CORK	3	4	-1	-29
25 PULP & WASTE PAPER	0	0	0	0
26 TEXTILE FIBRES	64	57	7	12
27 CRUDE FERTILIZERS & MINERAL	15	42	-27	-95
28 METALLIFEROUS ORES. SCRAP	4	13	-9	-106
29 CRUDE ANIMAL.VEG MATRLS.NES	121	144	-23	-17
3 MINERALS FUELS.LUBRICANTS	27	31	-4	-14
32 COAL.COKE & BRIQUETTES	18	19	-1	-5
33 PETROLEUM. PETROLEUM PRODUC	9	13	-4	-36
34 GAS.NATURAL & MFG	0	0	0	0
35 ELECTRIC ENERGY	0	0	0	0
4 ANIMAL.VEGETABLE OILS. FATS	2	10	-8	-133
41 ANIMAL OILS AND FATS	0	0	0	0
42 FIXED VEG OILS & FATS	0	6	-6	-200
43 PROCESSED ANIMAL. VEG. OILS	2	4	-2	-67
5 CHEMICALS	323	362	-39	-11
51 ORGANIC CHEMICALS	104	100	4	4
52 INORGANIC CHEMICALS	20	53	-33	-90
53 DYEING.TANNING.COLORING MTR	1	3	-2	-100
54 MEDICINAL.PHARMACEUTICAL PR	157	114	43	32
55 ESSENTIAL OILS & PERFUME	4	11	-7	-93
56 FERTILIZERS. MFG	0	0	0	0
57 PLASTICS IN PRIMARY FORM	8	14	-6	-55
58 PLASTICS IN NON-PRIMARY FORM	1	3	-2	-100
59 CHEMICAL MATERIALS. PRODS.N	28	64	-36	-78

Table A-8. 1992 Trade Flow from China to Germany (continued)

SITC Revision-3 Code/DESC	China reported exports to Germany	Germany reported imports from China	Difference between China exports and Germany imports	Percent difference China exports and Germany imports
	[in million U.S. dollars]			
6 MANUFACTURED GOODS	423	874	-451	-70
61 LEATHER & DRESSED FURSKINS	3	11	-8	-114
62 RUBBER MFGS.NES	5	6	-1	-18
63 WOOD & CORK MFGS	26	47	-21	-58
64 PAPER & PAPERBOARD	4	27	-23	-148
65 TEXTILE YARN & FABRICS	227	351	-124	-43
66 NON-METALLIC MINERAL MFGS.N	36	84	-48	-80
67 IRON AND STEEL	12	18	-6	-40
68 NON-FERROUS METALS	5	42	-37	-157
69 MANUFACTURERS OF METAL.NES	105	289	-184	-93
7 MACHINERY & TRANSPORT EQUIP	246	1214	-968	-133
71 POWER GEN. MACHINERY	30	58	-28	-64
72 SPECIAL INDUSTRY MACH.	10	11	-1	-10
73 METAL WORKING MACHINERY	20	25	-5	-22
74 GENERAL INDUSTRIAL MACH	27	73	-46	-92
75 OFFICE MACHINES. A.D.P	29	143	-114	-133
76 TELECOMMUNICATIONS EQUIP	56	517	-461	-161
77 ELECTRICAL MACHINERY	36	320	-284	-160
78 ROAD VEHICLES	38	64	-26	-51
79 OTHER TRANSPORT	1	3	-2	-100
8 MISCELLANEOUS MANUFACTURED	993	4322	-3329	-125
81 PREFAB BLDG, SANITARY.ETC	3	73	-70	-184
82 FURNITURE	37	60	-23	-47
83 TRAVEL GOODS.HANDBAGS	32	373	-341	-168
84 CLOTHING	562	2099	-1537	-116
85 FOOTWEAR	138	359	-221	-89
87 SCIENTIFIC INSTRUMENTS.	15	61	-46	-121
88 PHOTOGRAPHIC APPARATUS	10	105	-95	-165
89 MISC MFG ARTICLES.NES	195	1192	-997	-144
9 GOODS NOT CLASSIFIED BY KIN	1	47	-46	-192

Source: United Nations commodity trade data, SITC revision 3.

Table A-9. 1992 Trade Flow from South Korea to China

SITC Revision-3 Code/DESC	China reported imports from South Korea	South Korea reported exports to China	Difference between China imports and South Korea exports	Percent difference China imports and South Korea exports
	[in million U.S. dollars]			
TOTAL TRADE	2623	2654	-31	0
0 FOOD & LIVE ANIMALS	9	5	4	0
00 LIVE ANIMALS	0	0	0	0
01 MEAT	0	0	0	0
02 DAIRY PRODS & EGGS	0	0	0	0
03 FISH	1	1	0	0
04 CEREALS	0	0	0	0
05 FRUIT & VEGTABLES	1	0	1	1
06 SUGAR & HONEY	4	3	1	1
07 COFFEE.TEA.COCOA.SPICES	0	0	0	0
08 FEEDING STUFF FOR ANIMALS	0	0	0	0
09 MISC FOOD PREPARATIONS	2	1	1	2
1 BEVERAGES & TOBACCO	0	0	0	0
11 BEVERAGES	0	0	0	0
12 TOBACCO	0	0	0	0
2 CRUDE MATERIALS.INEDIBLE	174	153	21	3
21 HIDES.SKINS.FURSKINS	2	2	0	0
22 OIL-SEEDS.NUTS & KERNELS	0	0	0	0
23 CRUDE RUBBER	5	4	1	2
24 WOOD.LUMBER.CORK	0	0	0	0
25 PULP & WASTE PAPER	0	0	0	0
26 TEXTILE FIBRES	148	132	16	5
27 CRUDE FERTILIZERS & MINERAL	0	0	0	0
28 METALLIFEROUS ORES. SCRAP	17	14	3	7
29 CRUDE ANIMAL.VEG MATRLS.NES	2	1	1	1
3 MINERALS FUELS.LUBRICANTS	71	85	-14	-2
32 COAL.COKE & BRIQUETTES	0	0	0	0
33 PETROLEUM. PETROLEUM PRODUC	64	77	-13	-1
34 GAS.NATURAL & MFG	7	8	-1	-11
35 ELECTRIC ENERGY	0	0	0	0
4 ANIMAL.VEGETABLE OILS. FATS	0	0	0	0
41 ANIMAL OILS AND FATS	0	0	0	0
42 FIXED VEG OILS & FATS	0	0	0	0
43 PROCESSED ANIMAL. VEG. OILS	0	0	0	0
5 CHEMICALS	539	525	14	1
51 ORGANIC CHEMICALS	143	152	-9	-1
52 INORGANIC CHEMICALS	5	6	-1	-1
53 DYEING.TANNING.COLORING MTR	26	27	-1	-1
54 MEDICINAL.PHARMACEUTICAL PR	0	6	-6	-7
55 ESSENTIAL OILS & PERFUME	2	2	0	0
56 FERTILIZERS. MFG	2	2	0	0
57 PLASTICS IN PRIMARY FORM	332	302	30	3
58 PLASTICS IN NON-PRIMARY FORM	20	10	10	4
59 CHEMICAL MATERIALS. PRODS.N	9	18	-9	-9

Table A-9. 1992 Trade Flow from South Korea to China (continued)

SITC Revision-3 Code/DESC	China reported imports from South Korea [in million U.S. dollars]	South Korea reported exports to China	Difference between China imports and South Korea exports	Percent difference China imports and South Korea exports
6 MANUFACTURED GOODS	1302	1421	-119	-1
61 LEATHER & DRESSED FURSKINS	162	140	22	5
62 RUBBER MFGS.NES	4	4	0	0
63 WOOD & CORK MFGS	5	7	-2	-5
64 PAPER & PAPERBOARD	77	89	-12	-4
65 TEXTILE YARN & FABRICS	344	322	22	1
66 NON-METALLIC MINERAL MFGS.N	8	8	0	0
67 IRON AND STEEL	629	741	-112	-4
68 NON-FERROUS METALS	41	39	2	1
69 MANUFACTURERS OF METAL.NES	33	70	-37	-3
7 MACHINERY & TRANSPORT EQUIP	454	384	70	0
71 POWER GEN. MACHINERY	4	3	1	0
72 SPECIAL INDUSTRY MACH.	154	105	49	9
73 METAL WORKING MACHINERY	19	13	6	6
74 GENERAL INDUSTRIAL MACH	37	24	13	2
75 OFFICE MACHINES. A.D.P	12	16	-4	0
76 TELECOMMUNICATIONS EQUIP	61	54	7	0
77 ELECTRICAL MACHINERY	155	131	24	0
78 ROAD VEHICLES	7	18	-11	-1
79 OTHER TRANSPORT	6	19	-13	-1
8 MISCELLANEOUS MANUFACTURED	74	80	-6	0
81 PREFAB BLDG, SANITARY.ETC	1	2	-1	-3
82 FURNITURE	1	0	1	1
83 TRAVEL GOODS.HANDBAGS	0	1	-1	0
84 CLOTHING	10	12	-2	0
85 FOOTWEAR	13	14	-1	0
87 SCIENTIFIC INSTRUMENTS.	6	3	3	1
88 PHOTOGRAPHIC APPARATUS	2	2	0	0
89 MISC MFG ARTICLES.NES	41	46	-5	0
9 GOODS NOT CLASSIFIED BY KIN	0	0	0	0

Source: United Nations commodity trade data, SITC revision 3.

Table A-10. 1992 Trade Flow from China to South Korea

SITC Revision-3 Code/DESC	China reported exports to South Korea	South Korea reported imports from China	Difference between China exports and South Korea imports	Percent difference China exports and South Korea imports
	[in million U.S. dollars]			
TOTAL TRADE	2405	3725	-1320	-43
0 FOOD & LIVE ANIMALS	676	879	-203	-26
00 LIVE ANIMALS	1	1	0	0
01 MEAT	6	5	1	18
02 DAIRY PRODS & EGGS	0	0	0	0
03 FISH	32	39	-7	-20
04 CEREALS	507	668	-161	-27
05 FRUIT & VEGTABLES	53	57	-4	-7
06 SUGAR & HONEY	1	1	0	0
07 COFFEE.TEA.COCOA.SPICES	7	12	-5	-53
08 FEEDING STUFF FOR ANIMALS	66	90	-24	-31
09 MISC FOOD PREPARATIONS	5	7	-2	-33
1 BEVERAGES & TOBACCO	7	9	-2	-25
11 BEVERAGES	3	2	1	40
12 TOBACCO	5	7	-2	-33
2 CRUDE MATERIALS.INEDIBLE	157	372	-215	-81
21 HIDES.SKINS.FURSKINS	0	0	0	0
22 OIL-SEEDS.NUTS & KERNELS	32	39	-7	-20
23 CRUDE RUBBER	7	9	-2	-25
24 WOOD.LUMBER.CORK	7	10	-3	-35
25 PULP & WASTE PAPER	0	2	-2	-200
26 TEXTILE FIBRES	38	145	-107	-117
27 CRUDE FERTILIZERS & MINERAL	36	56	-20	-43
28 METALLIFEROUS ORES. SCRAP	6	15	-9	-86
29 CRUDE ANIMAL.VEG MATRLS.NES	30	96	-66	-105
3 MINERALS FUELS.LUBRICANTS	425	530	-105	-22
32 COAL.COKE & BRIQUETTES	153	210	-57	-31
33 PETROLEUM. PETROLEUM PRODUC	271	320	-49	-17
34 GAS.NATURAL & MFG	1	0	1	200
35 ELECTRIC ENERGY	0	0	0	0
4 ANIMAL.VEGETABLE OILS. FATS	5	8	-3	-46
41 ANIMAL OILS AND FATS	0	0	0	0
42 FIXED VEG OILS & FATS	5	8	-3	-46
43 PROCESSED ANIMAL. VEG. OILS	0	0	0	0
5 CHEMICALS	163	231	-68	-35
51 ORGANIC CHEMICALS	62	94	-32	-41
52 INORGANIC CHEMICALS	48	63	-15	-27
53 DYEING.TANNING.COLORING MTR	11	17	-6	-43
54 MEDICINAL.PHARMACEUTICAL PR	22	26	-4	-17
55 ESSENTIAL OILS & PERFUME	1	1	0	0
56 FERTILIZERS. MFG	0	1	-1	-200
57 PLASTICS IN PRIMARY FORM	8	13	-5	-48
58 PLASTICS IN NON-PRIMARY FORM	1	1	0	0
59 CHEMICAL MATERIALS. PRODS.N	11	16	-5	-37

Table A-10. 1992 Trade Flow from China to South Korea (continued)

SITC Revision-3 Code/DESC	China reported exports to South Korea	South Korea reported imports from China	Difference between China exports and South Korea imports	Percent difference China exports and South Korea imports
	[in million U.S. dollars]			
6 MANUFACTURED GOODS	705	1304	-599	-60
61 LEATHER & DRESSED FURSKINS	3	11	-8	-114
62 RUBBER MFGS.NES	2	3	-1	-40
63 WOOD & CORK MFGS	16	19	-3	-17
64 PAPER & PAPERBOARD	1	1	0	0
65 TEXTILE YARN & FABRICS	289	750	-461	-89
66 NON-METALLIC MINERAL MFGS.N	168	243	-75	-36
67 IRON AND STEEL	167	191	-24	-13
68 NON-FERROUS METALS	33	53	-20	-47
69 MANUFACTURERS OF METAL.NES	26	34	-8	-27
7 MACHINERY & TRANSPORT EQUIP	100	169	-69	-51
71 POWER GEN. MACHINERY	7	19	-12	-92
72 SPECIAL INDUSTRY MACH.	6	8	-2	-29
73 METAL WORKING MACHINERY	4	9	-5	-77
74 GENERAL INDUSTRIAL MACH	22	25	-3	-13
75 OFFICE MACHINES. A.D.P	10	18	-8	-57
76 TELECOMMUNICATIONS EQUIP	22	43	-21	-65
77 ELECTRICAL MACHINERY	21	39	-18	-60
78 ROAD VEHICLES	7	6	1	15
79 OTHER TRANSPORT	1	1	0	0
8 MISCELLANEOUS MANUFACTURED	164	222	-58	-30
81 PREFAB BLDG, SANITARY.ETC	2	4	-2	-67
82 FURNITURE	3	4	-1	-29
83 TRAVEL GOODS.HANDBAGS	3	2	1	40
84 CLOTHING	92	78	14	16
85 FOOTWEAR	12	18	-6	-40
87 SCIENTIFIC INSTRUMENTS.	5	5	0	0
88 PHOTOGRAPHIC APPARATUS	2	13	-11	-147
89 MISC MFG ARTICLES.NES	44	98	-54	-76
9 GOODS NOT CLASSIFIED BY KIN	2	1	1	67

Source: United Nations commodity trade data, SITC revision 3.

Table A-11. 1992 Trade Flow from Singapore to China

SITC Revision-3 Code/DESC	China reported imports from Singapore [in million	Singapore reported exports to China U.S. dollars]	Difference between China imports and Singapore exports	Percent difference China imports and Singapore exports
TOTAL TRADE	1236	1112	124	11
0 FOOD & LIVE ANIMALS	21	41	-20	-65
00 LIVE ANIMALS	0	0	0	0
01 MEAT	0	0	0	0
02 DAIRY PRODS & EGGS	0	0	0	0
03 FISH	14	10	4	33
04 CEREALS	0	0	0	0
05 FRUIT & VEGTABLES	0	4	-4	-200
06 SUGAR & HONEY	0	0	0	0
07 COFFEE.TEA.COCOA.SPICES	1	10	-9	-164
08 FEEDING STUFF FOR ANIMALS	3	14	-11	-129
09 MISC FOOD PREPARATIONS	2	2	0	0
1 BEVERAGES & TOBACCO	5	1	4	133
11 BEVERAGES	5	1	4	133
12 TOBACCO	0	0	0	0
2 CRUDE MATERIALS.INEDIBLE	24	59	-35	-84
21 HIDES.SKINS.FURSKINS	0	0	0	0
22 OIL-SEEDS.NUTS & KERNELS	0	0	0	0
23 CRUDE RUBBER	8	43	-35	-137
24 WOOD.LUMBER.CORK	2	0	2	200
25 PULP & WASTE PAPER	0	0	0	0
26 TEXTILE FIBRES	4	5	-1	-22
27 CRUDE FERTILIZERS & MINERAL	1	0	1	200
28 METALLIFEROUS ORES. SCRAP	8	9	-1	-12
29 CRUDE ANIMAL.VEG MATRLS.NES	1	2	-1	-67
3 MINERALS FUELS.LUBRICANTS	722	267	455	92
32 COAL.COKE & BRIQUETTES	0	0	0	0
33 PETROLEUM. PETROLEUM PRODUC	702	264	438	91
34 GAS.NATURAL & MFG	20	4	16	133
35 ELECTRIC ENERGY	0	0	0	0
4 ANIMAL.VEGETABLE OILS. FATS	50	84	-34	-51
41 ANIMAL OILS AND FATS	0	0	0	0
42 FIXED VEG OILS & FATS	48	20	28	82
43 PROCESSED ANIMAL. VEG. OILS	1	63	-62	-194
5 CHEMICALS	158	219	-61	-32
51 ORGANIC CHEMICALS	17	55	-38	-106
52 INORGANIC CHEMICALS	2	3	-1	-40
53 DYEING.TANNING.COLORING MTR	16	17	-1	-6
54 MEDICINAL.PHARMACEUTICAL PR	3	2	1	40
55 ESSENTIAL OILS & PERFUME	5	7	-2	-33
56 FERTILIZERS. MFG	0	0	0	0
57 PLASTICS IN PRIMARY FORM	93	116	-23	-22
58 PLASTICS IN NON-PRIMARY FORM	6	4	2	40
59 CHEMICAL MATERIALS. PRODS.N	18	14	4	25

Table A-11. 1992 Trade Flow from Singapore to China (continued)

SITC Revision-3 Code/DESC	China reported imports from Singapore [in million	Singapore reported exports to China U.S. dollars]	Difference between China imports and Singapore exports	Percent difference China imports and Singapore exports
6 MANUFACTURED GOODS	49	86	-37	-55
61 LEATHER & DRESSED FURSKINS	1	1	0	0
62 RUBBER MFGS.NES	1	3	-2	-100
63 WOOD & CORK MFGS	9	18	-9	-67
64 PAPER & PAPERBOARD	3	1	2	100
65 TEXTILE YARN & FABRICS	4	5	-1	-22
66 NON-METALLIC MINERAL MFGS.N	2	4	-2	-67
67 IRON AND STEEL	7	9	-2	-25
68 NON-FERROUS METALS	15	37	-22	-85
69 MANUFACTURERS OF METAL.NES	7	9	-2	-25
7 MACHINERY & TRANSPORT EQUIP	148	312	-164	-71
71 POWER GEN. MACHINERY	11	42	-31	-117
72 SPECIAL INDUSTRY MACH.	35	41	-6	-16
73 METAL WORKING MACHINERY	5	5	0	0
74 GENERAL INDUSTRIAL MACH	30	42	-12	-33
75 OFFICE MACHINES. A.D.P	13	24	-11	-59
76 TELECOMMUNICATIONS EQUIP	20	63	-43	-104
77 ELECTRICAL MACHINERY	26	32	-6	-21
78 ROAD VEHICLES	6	23	-17	-117
79 OTHER TRANSPORT	3	39	-36	-171
8 MISCELLANEOUS MANUFACTURED	19	33	-14	-54
81 PREFAB BLDG, SANITARY.ETC	1	1	0	0
82 FURNITURE	1	2	-1	-67
83 TRAVEL GOODS.HANDBAGS	0	0	0	0
84 CLOTHING	0	1	-1	-200
85 FOOTWEAR	0	0	0	0
87 SCIENTIFIC INSTRUMENTS.	8	18	-10	-77
88 PHOTOGRAPHIC APPARATUS	2	2	0	0
89 MISC MFG ARTICLES.NES	7	9	-2	-25
9 GOODS NOT CLASSIFIED BY KIN	39	11	28	112

Source: United Nations commodity trade data, SITC revision 3.

Table A-12. 1992 Trade Flow from China to Singapore

SITC Revision-3 Code/DESC	China reported exports to Singapore	Singapore reported imports from China	Difference between China exports and Singapore imports	Percent difference China exports and Singapore imports
	[in million U.S. dollars]			
TOTAL TRADE	2031	2252	-221	-10
0 FOOD & LIVE ANIMALS	214	306	-92	-35
00 LIVE ANIMALS	0	0	0	0
01 MEAT	40	44	-4	-10
02 DAIRY PRODS & EGGS	2	2	0	0
03 FISH	6	14	-8	-80
04 CEREALS	21	20	1	5
05 FRUIT & VEGTABLES	86	165	-79	-63
06 SUGAR & HONEY	13	9	4	36
07 COFFEE.TEA.COCOA.SPICES	30	40	-10	-29
08 FEEDING STUFF FOR ANIMALS	10	6	4	50
09 MISC FOOD PREPARATIONS	8	7	1	13
1 BEVERAGES & TOBACCO	100	121	-21	-19
11 BEVERAGES	5	5	0	0
12 TOBACCO	95	116	-21	-20
2 CRUDE MATERIALS.INEDIBLE	65	69	-4	-6
21 HIDES.SKINS.FURSKINS	0	0	0	0
22 OIL-SEEDS.NUTS & KERNELS	14	14	0	0
23 CRUDE RUBBER	0	0	0	0
24 WOOD.LUMBER.CORK	1	1	0	0
25 PULP & WASTE PAPER	0	0	0	0
26 TEXTILE FIBRES	7	5	2	33
27 CRUDE FERTILIZERS & MINERAL	5	6	-1	-18
28 METALLIFEROUS ORES. SCRAP	5	1	4	133
29 CRUDE ANIMAL.VEG MATRLS.NES	34	41	-7	-19
3 MINERALS FUELS.LUBRICANTS	631	517	114	20
32 COAL.COKE & BRIQUETTES	1	1	0	0
33 PETROLEUM. PETROLEUM PRODUC	630	516	114	20
34 GAS.NATURAL & MFG	0	0	0	0
35 ELECTRIC ENERGY	0	0	0	0
4 ANIMAL.VEGETABLE OILS. FATS	1	4	-3	-120
41 ANIMAL OILS AND FATS	0	0	0	0
42 FIXED VEG OILS & FATS	0	3	-3	-200
43 PROCESSED ANIMAL. VEG. OILS	0	0	0	0
5 CHEMICALS	111	116	-5	-4
51 ORGANIC CHEMICALS	37	36	1	3
52 INORGANIC CHEMICALS	19	17	2	11
53 DYEING.TANNING.COLORING MTR	8	9	-1	-12
54 MEDICINAL.PHARMACEUTICAL PR	19	24	-5	-23
55 ESSENTIAL OILS & PERFUME	12	11	1	9
56 FERTILIZERS. MFG	1	0	1	200
57 PLASTICS IN PRIMARY FORM	4	7	-3	-55
58 PLASTICS IN NON-PRIMARY FORM	1	1	0	0
59 CHEMICAL MATERIALS. PRODS.N	11	11	0	0

Table A-12. 1992 Trade Flow from China to Singapore (continued)

SITC Revision-3 Code/DESC	China reported exports to Singapore	Singapore reported imports from China	Difference between China exports and Singapore imports	Percent difference China exports and Singapore imports
	[in million U.S. dollars]			
6 MANUFACTURED GOODS	522	555	-33	-6
61 LEATHER & DRESSED FURSKINS	0	1	-1	-200
62 RUBBER MFGS.NES	12	20	-8	-50
63 WOOD & CORK MFGS	6	6	0	0
64 PAPER & PAPERBOARD	29	31	-2	-7
65 TEXTILE YARN & FABRICS	240	243	-3	-1
66 NON-METALLIC MINERAL MFGS.N	31	38	-7	-20
67 IRON AND STEEL	52	56	-4	-7
68 NON-FERROUS METALS	77	72	5	7
69 MANUFACTURERS OF METAL.NES	75	87	-12	-15
7 MACHINERY & TRANSPORT EQUIP	209	364	-155	-54
71 POWER GEN. MACHINERY	16	35	-19	-75
72 SPECIAL INDUSTRY MACH.	15	16	-1	-6
73 METAL WORKING MACHINERY	12	13	-1	-8
74 GENERAL INDUSTRIAL MACH	37	46	-9	-22
75 OFFICE MACHINES. A.D.P	6	30	-24	-133
76 TELECOMMUNICATIONS EQUIP	24	71	-47	-99
77 ELECTRICAL MACHINERY	39	72	-33	-59
78 ROAD VEHICLES	27	24	3	12
79 OTHER TRANSPORT	33	58	-25	-55
8 MISCELLANEOUS MANUFACTURED	177	198	-21	-11
81 PREFAB BLDG, SANITARY.ETC	3	5	-2	-50
82 FURNITURE	7	9	-2	-25
83 TRAVEL GOODS.HANDBAGS	1	10	-9	-164
84 CLOTHING	58	68	-10	-16
85 FOOTWEAR	9	12	-3	-29
87 SCIENTIFIC INSTRUMENTS.	5	7	-2	-33
88 PHOTOGRAPHIC APPARATUS	9	13	-4	-36
89 MISC MFG ARTICLES.NES	84	73	11	14
9 GOODS NOT CLASSIFIED BY KIN	1	4	-3	-120

Source: United Nations commodity trade data, SITC revision 3.

Table A-13. 1992 Trade Flow from Italy to China

SITC Revision-3 Code/DESC	China reported imports from Italy	Italy reported exports to China	Difference between China imports and Italy exports	Percent difference China imports and Italy exports
	[in million U.S. dollars]			
TOTAL TRADE	1748	1497	251	15
0 FOOD & LIVE ANIMALS	1	1	0	0
00 LIVE ANIMALS	0	0	0	0
01 MEAT	0	1	-1	-200
02 DAIRY PRODS & EGGS	0	0	0	0
03 FISH	0	0	0	0
04 CEREALS	0	0	0	0
05 FRUIT & VEGTABLES	0	0	0	0
06 SUGAR & HONEY	0	0	0	0
07 COFFEE.TEA.COCOA.SPICES	0	0	0	0
08 FEEDING STUFF FOR ANIMALS	0	0	0	0
09 MISC FOOD PREPARATIONS	0	0	0	0
1 BEVERAGES & TOBACCO	0	0	0	0
11 BEVERAGES	0	0	0	0
12 TOBACCO	0	0	0	0
2 CRUDE MATERIALS.INEDIBLE	140	21	119	148
21 HIDES.SKINS.FURSKINS	1	0	1	200
22 OIL-SEEDS.NUTS & KERNELS	0	0	0	0
23 CRUDE RUBBER	2	0	2	200
24 WOOD.LUMBER.CORK	0	0	0	0
25 PULP & WASTE PAPER	0	0	0	0
26 TEXTILE FIBRES	133	19	114	150
27 CRUDE FERTILIZERS & MINERAL	2	1	1	67
28 METALLIFEROUS ORES. SCRAP	1	0	1	200
29 CRUDE ANIMAL.VEG MATRLS.NES	0	0	0	0
3 MINERALS FUELS.LUBRICANTS	1	2	-1	-67
32 COAL.COKE & BRIQUETTES	0	0	0	0
33 PETROLEUM. PETROLEUM PRODUC	1	2	-1	-67
34 GAS.NATURAL & MFG	0	0	0	0
35 ELECTRIC ENERGY	0	0	0	0
4 ANIMAL.VEGETABLE OILS. FATS	0	1	-1	-200
41 ANIMAL OILS AND FATS	0	0	0	0
42 FIXED VEG OILS & FATS	0	0	0	0
43 PROCESSED ANIMAL. VEG. OILS	0	1	-1	-200
5 CHEMICALS	164	100	64	48
51 ORGANIC CHEMICALS	32	20	12	46
52 INORGANIC CHEMICALS	6	0	6	200
53 DYEING.TANNING.COLORING MTR	4	4	0	0
54 MEDICINAL.PHARMACEUTICAL PR	59	23	36	88
55 ESSENTIAL OILS & PERFUME	1	0	1	200
56 FERTILIZERS. MFG	15	12	3	22
57 PLASTICS IN PRIMARY FORM	28	22	6	24
58 PLASTICS IN NON-PRIMARY FORM	3	3	0	0
59 CHEMICAL MATERIALS. PRODS.N	16	15	1	6

Table A-13. 1992 Trade Flow from Italy to China (continued)

SITC Revision-3 Code/DESC	China reported imports from Italy	Italy reported exports to China	Difference between China imports and Italy exports	Percent difference China imports and Italy exports
	[in million U.S. dollars]			
6 MANUFACTURED GOODS	129	135	-6	-5
61 LEATHER & DRESSED FURSKINS	19	5	14	117
62 RUBBER MFGS.NES	1	1	0	0
63 WOOD & CORK MFGS	1	0	1	200
64 PAPER & PAPERBOARD	9	5	4	57
65 TEXTILE YARN & FABRICS	30	24	6	22
66 NON-METALLIC MINERAL MFGS.N	25	7	18	113
67 IRON AND STEEL	27	73	-46	-92
68 NON-FERROUS METALS	5	5	0	0
69 MANUFACTURERS OF METAL.NES	11	17	-6	-43
7 MACHINERY & TRANSPORT EQUIP	1271	1102	169	14
71 POWER GEN. MACHINERY	152	73	79	70
72 SPECIAL INDUSTRY MACH.	664	581	83	13
73 METAL WORKING MACHINERY	201	102	99	65
74 GENERAL INDUSTRIAL MACH	111	167	-56	-40
75 OFFICE MACHINES. A.D.P	20	9	11	76
76 TELECOMMUNICATIONS EQUIP	33	27	6	20
77 ELECTRICAL MACHINERY	27	39	-12	-36
78 ROAD VEHICLES	62	97	-35	-44
79 OTHER TRANSPORT	2	7	-5	-111
8 MISCELLANEOUS MANUFACTURED	41	37	4	10
81 PREFAB BLDG, SANITARY.ETC	2	1	1	67
82 FURNITURE	1	1	0	0
83 TRAVEL GOODS.HANDBAGS	0	0	0	0
84 CLOTHING	1	2	-1	-67
85 FOOTWEAR	3	5	-2	-50
87 SCIENTIFIC INSTRUMENTS.	27	19	8	35
88 PHOTOGRAPHIC APPARATUS	1	1	0	0
89 MISC MFG ARTICLES.NES	6	7	-1	-15
9 GOODS NOT CLASSIFIED BY KIN	1	99	-98	-196

Source: United Nations commodity trade data, SITC revision 3.

Table A-14. 1992 Trade Flow from China to Italy

SITC Revision-3 Code/DESC	China reported exports to Italy	Italy reported imports from China	Difference between China exports and Italy imports	Percent difference China exports and Italy imports
	[in million U.S. dollars]			
TOTAL TRADE	1095	2779	-1684	-87
0 FOOD & LIVE ANIMALS	131	132	-1	-1
00 LIVE ANIMALS	0	1	-1	-200
01 MEAT	2	7	-5	-111
02 DAIRY PRODS & EGGS	0	0	0	0
03 FISH	1	3	-2	-100
04 CEREALS	1	0	1	200
05 FRUIT & VEGTABLES	87	93	-6	-7
06 SUGAR & HONEY	1	1	0	0
07 COFFEE.TEA.COCOA.SPICES	0	0	0	0
08 FEEDING STUFF FOR ANIMALS	36	24	12	40
09 MISC FOOD PREPARATIONS	2	2	0	0
1 BEVERAGES & TOBACCO	1	2	-1	-67
11 BEVERAGES	1	2	-1	-67
12 TOBACCO	0	0	0	0
2 CRUDE MATERIALS.INEDIBLE	151	248	-97	-49
21 HIDES.SKINS.FURSKINS	1	2	-1	-67
22 OIL-SEEDS.NUTS & KERNELS	4	9	-5	-77
23 CRUDE RUBBER	0	0	0	0
24 WOOD.LUMBER.CORK	1	3	-2	-100
25 PULP & WASTE PAPER	0	0	0	0
26 TEXTILE FIBRES	122	203	-81	-50
27 CRUDE FERTILIZERS & MINERAL	9	14	-5	-43
28 METALLIFEROUS ORES. SCRAP	3	5	-2	-50
29 CRUDE ANIMAL.VEG MATRLS.NES	11	13	-2	-17
3 MINERALS FUELS.LUBRICANTS	25	16	9	44
32 COAL.COKE & BRIQUETTES	12	13	-1	-8
33 PETROLEUM. PETROLEUM PRODUC	13	2	11	147
34 GAS.NATURAL & MFG	0	0	0	0
35 ELECTRIC ENERGY	0	0	0	0
4 ANIMAL.VEGETABLE OILS. FATS	1	2	-1	-67
41 ANIMAL OILS AND FATS	0	0	0	0
42 FIXED VEG OILS & FATS	0	1	-1	-200
43 PROCESSED ANIMAL. VEG. OILS	0	1	-1	-200
5 CHEMICALS	69	91	-22	-28
51 ORGANIC CHEMICALS	24	33	-9	-32
52 INORGANIC CHEMICALS	10	8	2	22
53 DYEING.TANNING.COLORING MTR	6	8	-2	-29
54 MEDICINAL.PHARMACEUTICAL PR	19	21	-2	-10
55 ESSENTIAL OILS & PERFUME	1	4	-3	-120
56 FERTILIZERS. MFG	0	0	0	0
57 PLASTICS IN PRIMARY FORM	3	6	-3	-67
58 PLASTICS IN NON-PRIMARY FORM	0	1	-1	-200
59 CHEMICAL MATERIALS. PRODS.N	6	11	-5	-59

Table A-14. 1992 Trade Flow from China to Italy (continued)

SITC Revision-3 Code/DESC	China reported exports to Italy	Italy reported imports from China	Difference between China exports and Italy imports	Percent difference China exports and Italy imports
	[in million U.S. dollars]			
6 MANUFACTURED GOODS	237	423	-186	-56
61 LEATHER & DRESSED FURSKINS	17	37	-20	-74
62 RUBBER MFGS.NES	2	2	0	0
63 WOOD & CORK MFGS	10	14	-4	-33
64 PAPER & PAPERBOARD	2	6	-4	-100
65 TEXTILE YARN & FABRICS	159	241	-82	-41
66 NON-METALLIC MINERAL MFGS.N	18	51	-33	-96
67 IRON AND STEEL	2	4	-2	-67
68 NON-FERROUS METALS	1	3	-2	-100
69 MANUFACTURERS OF METAL.NES	27	66	-39	-84
7 MACHINERY & TRANSPORT EQUIP	55	408	-353	-152
71 POWER GEN. MACHINERY	10	27	-17	-92
72 SPECIAL INDUSTRY MACH.	5	5	0	0
73 METAL WORKING MACHINERY	8	11	-3	-32
74 GENERAL INDUSTRIAL MACH	13	34	-21	-89
75 OFFICE MACHINES. A.D.P	2	38	-36	-180
76 TELECOMMUNICATIONS EQUIP	5	158	-153	-188
77 ELECTRICAL MACHINERY	8	80	-72	-164
78 ROAD VEHICLES	3	2	1	40
79 OTHER TRANSPORT	0	52	-52	-200
8 MISCELLANEOUS MANUFACTURED	427	1456	-1029	-109
81 PREFAB BLDG, SANITARY.ETC	2	16	-14	-156
82 FURNITURE	9	24	-15	-91
83 TRAVEL GOODS.HANDBAGS	8	148	-140	-179
84 CLOTHING	264	517	-253	-65
85 FOOTWEAR	57	67	-10	-16
87 SCIENTIFIC INSTRUMENTS.	6	15	-9	-86
88 PHOTOGRAPHIC APPARATUS	4	101	-97	-185
89 MISC MFG ARTICLES.NES	76	568	-492	-153
9 GOODS NOT CLASSIFIED BY KIN	0	0	0	0

Source: United Nations commodity trade data, SITC revision 3.

Table A-15. 1992 Trade Flow from Canada to China

SITC Revision-3 Code/DESC	China reported imports from Canada	Canada reported exports to China	Difference between China imports and Canada exports	Percent difference China imports and Canada exports
	[in million U.S. dollars]			
TOTAL TRADE	1927	1865	62	3
0 FOOD & LIVE ANIMALS	908	1063	-155	-16
00 LIVE ANIMALS	0	0	0	0
01 MEAT	1	1	0	0
02 DAIRY PRODS & EGGS	2	1	1	67
03 FISH	6	5	1	18
04 CEREALS	896	1055	-159	-16
05 FRUIT & VEGTABLES	1	1	0	0
06 SUGAR & HONEY	0	0	0	0
07 COFFEE.TEA.COCOA.SPICES	0	0	0	0
08 FEEDING STUFF FOR ANIMALS	2	0	2	200
09 MISC FOOD PREPARATIONS	1	0	1	200
1 BEVERAGES & TOBACCO	0	0	0	0
11 BEVERAGES	0	0	0	0
12 TOBACCO	0	0	0	0
2 CRUDE MATERIALS.INEDIBLE	216	190	26	13
21 HIDES.SKINS.FURSKINS	17	1	16	178
22 OIL-SEEDS.NUTS & KERNELS	2	0	2	200
23 CRUDE RUBBER	2	1	1	67
24 WOOD.LUMBER.CORK	17	7	10	83
25 PULP & WASTE PAPER	154	126	28	20
26 TEXTILE FIBRES	0	34	-34	-200
27 CRUDE FERTILIZERS & MINERAL	2	10	-8	-133
28 METALLIFEROUS ORES. SCRAP	18	8	10	77
29 CRUDE ANIMAL.VEG MATRLS.NES	5	3	2	50
3 MINERALS FUELS.LUBRICANTS	26	34	-8	-27
32 COAL.COKE & BRIQUETTES	2	0	2	200
33 PETROLEUM. PETROLEUM PRODUC	24	33	-9	-32
34 GAS.NATURAL & MFG	0	0	0	0
35 ELECTRIC ENERGY	0	0	0	0
4 ANIMAL.VEGETABLE OILS. FATS	0	0	0	0
41 ANIMAL OILS AND FATS	0	0	0	0
42 FIXED VEG OILS & FATS	0	0	0	0
43 PROCESSED ANIMAL. VEG. OILS	0	0	0	0
5 CHEMICALS	237	162	75	38
51 ORGANIC CHEMICALS	27	22	5	20
52 INORGANIC CHEMICALS	6	0	6	200
53 DYEING.TANNING.COLORING MTR	0	0	0	0
54 MEDICINAL.PHARMACEUTICAL PR	2	2	0	0
55 ESSENTIAL OILS & PERFUME	0	0	0	0
56 FERTILIZERS. MFG	123	68	55	58
57 PLASTICS IN PRIMARY FORM	76	69	7	10
58 PLASTICS IN NON-PRIMARY FORM	1	0	1	200
59 CHEMICAL MATERIALS. PRODS.N	3	0	3	200

Table A-15. 1992 Trade Flow from Canada to China (continued)

SITC Revision-3 Code/DESC	China reported imports from Canada	Canada reported exports to China	Difference between China imports and Canada exports	Percent difference China imports and Canada exports
	[in million U.S. dollars]			
6 MANUFACTURED GOODS	118	35	83	108
61 LEATHER & DRESSED FURSKINS	22	0	22	200
62 RUBBER MFGS.NES	0	0	0	0
63 WOOD & CORK MFGS	2	0	2	200
64 PAPER & PAPERBOARD	12	7	5	53
65 TEXTILE YARN & FABRICS	25	1	24	185
66 NON-METALLIC MINERAL MFGS.N	2	1	1	67
67 IRON AND STEEL	23	5	18	129
68 NON-FERROUS METALS	30	21	9	35
69 MANUFACTURERS OF METAL.NES	1	1	0	0
7 MACHINERY & TRANSPORT EQUIP	390	361	29	8
71 POWER GEN. MACHINERY	66	53	13	22
72 SPECIAL INDUSTRY MACH.	81	55	26	38
73 METAL WORKING MACHINERY	8	2	6	120
74 GENERAL INDUSTRIAL MACH	55	29	26	62
75 OFFICE MACHINES. A.D.P	5	4	1	22
76 TELECOMMUNICATIONS EQUIP	82	82	0	0
77 ELECTRICAL MACHINERY	44	27	17	48
78 ROAD VEHICLES	11	82	-71	-153
79 OTHER TRANSPORT	40	26	14	42
8 MISCELLANEOUS MANUFACTURED	31	12	19	88
81 PREFAB BLDG, SANITARY.ETC	0	0	0	0
82 FURNITURE	0	0	0	0
83 TRAVEL GOODS.HANDBAGS	0	0	0	0
84 CLOTHING	0	0	0	0
85 FOOTWEAR	0	0	0	0
87 SCIENTIFIC INSTRUMENTS.	26	10	16	89
88 PHOTOGRAPHIC APPARATUS	1	0	1	200
89 MISC MFG ARTICLES.NES	4	1	3	120
9 GOODS NOT CLASSIFIED BY KIN	0	9	-9	-200

Source: United Nations commodity trade data, SITC revision 3.

Table A-16. 1992 Trade Flow from China to Canada

SITC Revision-3 Code/DESC	China reported exports to Canada	Canada reported imports from China	Difference between China exports and Canada imports	Percent difference China exports and Canada imports
	[in million U.S. dollars]			
TOTAL TRADE	653	2027	-1374	-103
0 FOOD & LIVE ANIMALS	58	100	-42	-53
00 LIVE ANIMALS	0	0	0	0
01 MEAT	0	0	0	0
02 DAIRY PRODS & EGGS	1	1	0	0
03 FISH	16	41	-25	-88
04 CEREALS	1	3	-2	-100
05 FRUIT & VEGTABLES	36	46	-10	-24
06 SUGAR & HONEY	1	1	0	0
07 COFFEE.TEA.COCOA.SPICES	2	3	-1	-40
08 FEEDING STUFF FOR ANIMALS	0	0	0	0
09 MISC FOOD PREPARATIONS	1	4	-3	-120
1 BEVERAGES & TOBACCO	8	4	4	67
11 BEVERAGES	1	1	0	0
12 TOBACCO	7	3	4	80
2 CRUDE MATERIALS.INEDIBLE	16	34	-18	-72
21 HIDES.SKINS.FURSKINS	0	0	0	0
22 OIL-SEEDS.NUTS & KERNELS	7	13	-6	-60
23 CRUDE RUBBER	0	0	0	0
24 WOOD.LUMBER.CORK	0	0	0	0
25 PULP & WASTE PAPER	0	0	0	0
26 TEXTILE FIBRES	0	0	0	0
27 CRUDE FERTILIZERS & MINERAL	4	7	-3	-55
28 METALLIFEROUS ORES. SCRAP	2	4	-2	-67
29 CRUDE ANIMAL.VEG MATRLS.NES	2	10	-8	-133
3 MINERALS FUELS.LUBRICANTS	0	0	0	0
32 COAL.COKE & BRIQUETTES	0	0	0	0
33 PETROLEUM. PETROLEUM PRODUC	0	0	0	0
34 GAS.NATURAL & MFG	0	0	0	0
35 ELECTRIC ENERGY	0	0	0	0
4 ANIMAL.VEGETABLE OILS. FATS	0	0	0	0
41 ANIMAL OILS AND FATS	0	0	0	0
42 FIXED VEG OILS & FATS	0	0	0	0
43 PROCESSED ANIMAL. VEG. OILS	0	0	0	0
5 CHEMICALS	26	38	-12	-38
51 ORGANIC CHEMICALS	5	7	-2	-33
52 INORGANIC CHEMICALS	6	11	-5	-59
53 DYEING.TANNING.COLORING MTR	1	2	-1	-67
54 MEDICINAL.PHARMACEUTICAL PR	10	12	-2	-18
55 ESSENTIAL OILS & PERFUME	0	2	-2	-200
56 FERTILIZERS. MFG	0	0	0	0
57 PLASTICS IN PRIMARY FORM	2	2	0	0
58 PLASTICS IN NON-PRIMARY FORM	0	0	0	0
59 CHEMICAL MATERIALS. PRODS.N	2	2	0	0

Table A-16. 1992 Trade Flow from China to Canada (continued)

SITC Revision-3 Code/DESC	China reported exports to Canada	Canada reported imports from China	Difference between China exports and Canada imports	Percent difference China exports and Canada imports
	[in million U.S. dollars]			
6 MANUFACTURED GOODS	146	261	-115	-57
61 LEATHER & DRESSED FURSKINS	0	1	-1	-200
62 RUBBER MFGS.NES	1	2	-1	-67
63 WOOD & CORK MFGS	3	10	-7	-108
64 PAPER & PAPERBOARD	2	10	-8	-133
65 TEXTILE YARN & FABRICS	90	121	-31	-29
66 NON-METALLIC MINERAL MFGS.N	14	37	-23	-90
67 IRON AND STEEL	4	4	0	0
68 NON-FERROUS METALS	1	6	-5	-143
69 MANUFACTURERS OF METAL.NES	30	69	-39	-79
7 MACHINERY & TRANSPORT EQUIP	57	331	-274	-141
71 POWER GEN. MACHINERY	2	4	-2	-67
72 SPECIAL INDUSTRY MACH.	2	8	-6	-120
73 METAL WORKING MACHINERY	1	1	0	0
74 GENERAL INDUSTRIAL MACH	18	56	-38	-103
75 OFFICE MACHINES. A.D.P	1	25	-24	-185
76 TELECOMMUNICATIONS EQUIP	16	106	-90	-148
77 ELECTRICAL MACHINERY	7	104	-97	-175
78 ROAD VEHICLES	9	26	-17	-97
79 OTHER TRANSPORT	1	1	0	0
8 MISCELLANEOUS MANUFACTURED	343	1249	-906	-114
81 PREFAB BLDG, SANITARY.ETC	6	31	-25	-135
82 FURNITURE	13	35	-22	-92
83 TRAVEL GOODS.HANDBAGS	7	127	-120	-179
84 CLOTHING	242	474	-232	-65
85 FOOTWEAR	31	134	-103	-125
87 SCIENTIFIC INSTRUMENTS.	2	9	-7	-127
88 PHOTOGRAPHIC APPARATUS	2	29	-27	-174
89 MISC MFG ARTICLES.NES	39	410	-371	-165
9 GOODS NOT CLASSIFIED BY KIN	0	11	-11	-200

Source: United Nations commodity trade data, SITC revision 3.

Table A-17. 1992 Trade Flow from Australia to China

SITC Revision-3 Code/DESC	China reported imports from Australia	Australia reported exports to China	Difference between China imports and Australia exports	Percent difference China imports and Australia exports
	[in million U.S. dollars]			
TOTAL TRADE	1671	1383	288	19
0 FOOD & LIVE ANIMALS	160	76	84	71
00 LIVE ANIMALS	1	0	1	200
01 MEAT	3	3	0	0
02 DAIRY PRODS & EGGS	4	1	3	120
03 FISH	3	0	3	200
04 CEREALS	101	68	33	39
05 FRUIT & VEGTABLES	1	1	0	0
06 SUGAR & HONEY	42	0	42	200
07 COFFEE.TEA.COCOA.SPICES	0	0	0	0
08 FEEDING STUFF FOR ANIMALS	2	0	2	200
09 MISC FOOD PREPARATIONS	3	1	2	100
1 BEVERAGES & TOBACCO	0	0	0	0
11 BEVERAGES	0	0	0	0
12 TOBACCO	0	0	0	0
2 CRUDE MATERIALS.INEDIBLE	1106	735	371	40
21 HIDES.SKINS.FURSKINS	26	23	3	12
22 OIL-SEEDS.NUTS & KERNELS	0	0	0	0
23 CRUDE RUBBER	0	0	0	0
24 WOOD.LUMBER.CORK	2	0	2	200
25 PULP & WASTE PAPER	0	0	0	0
26 TEXTILE FIBRES	456	389	67	16
27 CRUDE FERTILIZERS & MINERAL	1	2	-1	-67
28 METALLIFEROUS ORES. SCRAP	613	313	300	65
29 CRUDE ANIMAL.VEG MATRLS.NES	9	9	0	0
3 MINERALS FUELS.LUBRICANTS	111	94	17	17
32 COAL.COKE & BRIQUETTES	14	19	-5	-30
33 PETROLEUM. PETROLEUM PRODUC	97	74	23	27
34 GAS.NATURAL & MFG	0	0	0	0
35 ELECTRIC ENERGY	0	0	0	0
4 ANIMAL.VEGETABLE OILS. FATS	8	5	3	46
41 ANIMAL OILS AND FATS	7	5	2	33
42 FIXED VEG OILS & FATS	0	0	0	0
43 PROCESSED ANIMAL. VEG. OILS	1	0	1	200
5 CHEMICALS	17	11	6	43
51 ORGANIC CHEMICALS	1	0	1	200
52 INORGANIC CHEMICALS	1	1	0	0
53 DYEING.TANNING.COLORING MTR	2	2	0	0
54 MEDICINAL.PHARMACEUTICAL PR	1	1	0	0
55 ESSENTIAL OILS & PERFUME	0	1	-1	-200
56 FERTILIZERS. MFG	3	1	2	100
57 PLASTICS IN PRIMARY FORM	5	3	2	50
58 PLASTICS IN NON-PRIMARY FORM	1	1	0	0
59 CHEMICAL MATERIALS. PRODS.N	2	1	1	67

Table A-17. 1992 Trade Flow from Australia to China (continued)

SITC Revision-3 Code/DESC	China reported imports from Australia [in million U.S. dollars]	Australia reported exports to China	Difference between China imports and Australia exports	Percent difference China imports and Australia exports
6 MANUFACTURED GOODS	175	116	59	41
61 LEATHER & DRESSED FURSKINS	11	2	9	138
62 RUBBER MFGS.NES	0	1	-1	-200
63 WOOD & CORK MFGS	1	0	1	200
64 PAPER & PAPERBOARD	14	6	8	80
65 TEXTILE YARN & FABRICS	7	3	4	80
66 NON-METALLIC MINERAL MFGS.N	3	2	1	40
67 IRON AND STEEL	17	11	6	43
68 NON-FERROUS METALS	111	87	24	24
69 MANUFACTURERS OF METAL.NES	10	5	5	67
7 MACHINERY & TRANSPORT EQUIP	84	71	13	17
71 POWER GEN. MACHINERY	6	1	5	143
72 SPECIAL INDUSTRY MACH.	10	13	-3	-26
73 METAL WORKING MACHINERY	4	3	1	29
74 GENERAL INDUSTRIAL MACH	11	5	6	75
75 OFFICE MACHINES. A.D.P	2	1	1	67
76 TELECOMMUNICATIONS EQUIP	6	3	3	67
77 ELECTRICAL MACHINERY	10	10	0	0
78 ROAD VEHICLES	0	1	-1	-200
79 OTHER TRANSPORT	34	34	0	0
8 MISCELLANEOUS MANUFACTURED	8	12	-4	-40
81 PREFAB BLDG, SANITARY.ETC	1	2	-1	-67
82 FURNITURE	0	1	-1	-200
83 TRAVEL GOODS.HANDBAGS	0	0	0	0
84 CLOTHING	0	1	-1	-200
85 FOOTWEAR	0	0	0	0
87 SCIENTIFIC INSTRUMENTS.	5	4	1	22
88 PHOTOGRAPHIC APPARATUS	1	3	-2	-100
89 MISC MFG ARTICLES.NES	1	1	0	0
9 GOODS NOT CLASSIFIED BY KIN	1	206	-205	-198

Source: United Nations commodity trade data, SITC revision 3.

Table A-18. 1992 Trade Flow from China to Australia

SITC Revision-3 Code/DESC	China reported exports to Australia	Australia reported imports from China	Difference between China exports and Australia imports	Percent difference China exports and Australia imports
	[in million U.S. dollars]			
TOTAL TRADE	661	1704	-1043	-88
0 FOOD & LIVE ANIMALS	26	38	-12	-38
00 LIVE ANIMALS	0	0	0	0
01 MEAT	0	0	0	0
02 DAIRY PRODS & EGGS	0	0	0	0
03 FISH	2	3	-1	-40
04 CEREALS	1	2	-1	-67
05 FRUIT & VEGTABLES	16	20	-4	-22
06 SUGAR & HONEY	0	1	-1	-200
07 COFFEE.TEA.COCOA.SPICES	3	4	-1	-29
08 FEEDING STUFF FOR ANIMALS	0	0	0	0
09 MISC FOOD PREPARATIONS	2	7	-5	-111
1 BEVERAGES & TOBACCO	1	0	1	200
11 BEVERAGES	1	0	1	200
12 TOBACCO	0	0	0	0
2 CRUDE MATERIALS.INEDIBLE	10	23	-13	-79
21 HIDES.SKINS.FURSKINS	0	0	0	0
22 OIL-SEEDS.NUTS & KERNELS	3	8	-5	-91
23 CRUDE RUBBER	0	0	0	0
24 WOOD.LUMBER.CORK	0	0	0	0
25 PULP & WASTE PAPER	0	0	0	0
26 TEXTILE FIBRES	0	0	0	0
27 CRUDE FERTILIZERS & MINERAL	3	6	-3	-67
28 METALLIFEROUS ORES. SCRAP	1	3	-2	-100
29 CRUDE ANIMAL.VEG MATRLS.NES	2	6	-4	-100
3 MINERALS FUELS.LUBRICANTS	2	10	-8	-133
32 COAL.COKE & BRIQUETTES	0	0	0	0
33 PETROLEUM. PETROLEUM PRODUC	2	10	-8	-133
34 GAS.NATURAL & MFG	0	0	0	0
35 ELECTRIC ENERGY	0	0	0	0
4 ANIMAL.VEGETABLE OILS. FATS	1	1	0	0
41 ANIMAL OILS AND FATS	0	0	0	0
42 FIXED VEG OILS & FATS	1	1	0	0
43 PROCESSED ANIMAL. VEG. OILS	0	0	0	0
5 CHEMICALS	46	62	-16	-30
51 ORGANIC CHEMICALS	10	22	-12	-75
52 INORGANIC CHEMICALS	17	16	1	6
53 DYEING.TANNING.COLORING MTR	2	2	0	0
54 MEDICINAL.PHARMACEUTICAL PR	8	8	0	0
55 ESSENTIAL OILS & PERFUME	1	4	-3	-120
56 FERTILIZERS. MFG	0	2	-2	-200
57 PLASTICS IN PRIMARY FORM	0	0	0	0
58 PLASTICS IN NON-PRIMARY FORM	0	1	-1	-200
59 CHEMICAL MATERIALS. PRODS.N	7	5	2	33

Table A-18. 1992 Trade Flow from China to Australia (continued)

SITC Revision-3 Code/DESC	China reported exports to Australia	Australia reported imports from China	Difference between China exports and Australia imports	Percent difference China exports and Australia imports
	[in million U.S. dollars]			
6 MANUFACTURED GOODS	216	293	-77	-30
61 LEATHER & DRESSED FURSKINS	1	1	0	0
62 RUBBER MFGS.NES	4	5	-1	-22
63 WOOD & CORK MFGS	3	8	-5	-91
64 PAPER & PAPERBOARD	6	15	-9	-86
65 TEXTILE YARN & FABRICS	125	160	-35	-25
66 NON-METALLIC MINERAL MFGS.N	41	45	-4	-9
67 IRON AND STEEL	7	6	1	15
68 NON-FERROUS METALS	1	2	-1	-67
69 MANUFACTURERS OF METAL.NES	28	54	-26	-63
7 MACHINERY & TRANSPORT EQUIP	54	244	-190	-128
71 POWER GEN. MACHINERY	3	5	-2	-50
72 SPECIAL INDUSTRY MACH.	4	6	-2	-40
73 METAL WORKING MACHINERY	5	5	0	0
74 GENERAL INDUSTRIAL MACH	18	36	-18	-67
75 OFFICE MACHINES. A.D.P	3	15	-12	-133
76 TELECOMMUNICATIONS EQUIP	9	75	-66	-157
77 ELECTRICAL MACHINERY	9	77	-68	-158
78 ROAD VEHICLES	4	25	-21	-145
79 OTHER TRANSPORT	0	1	-1	-200
8 MISCELLANEOUS MANUFACTURED	305	996	-691	-106
81 PREFAB BLDG, SANITARY.ETC	3	18	-15	-143
82 FURNITURE	11	22	-11	-67
83 TRAVEL GOODS.HANDBAGS	7	93	-86	-172
84 CLOTHING	210	458	-248	-74
85 FOOTWEAR	33	127	-94	-118
87 SCIENTIFIC INSTRUMENTS.	2	5	-3	-86
88 PHOTOGRAPHIC APPARATUS	2	16	-14	-156
89 MISC MFG ARTICLES.NES	38	257	-219	-148
9 GOODS NOT CLASSIFIED BY KIN	0	37	-37	-200

Source: United Nations commodity trade data, SITC revision 3.

Table A-19. 1992 Trade Flow from France to China

SITC Revision-3 Code/DESC	China reported imports from France [in million U.S. dollars]	France reported exports to China	Difference between China imports and France exports	Percent difference China imports and France exports
TOTAL TRADE	1496	1395	101	7
0 FOOD & LIVE ANIMALS	195	100	95	64
00 LIVE ANIMALS	3	2	1	40
01 MEAT	2	1	1	67
02 DAIRY PRODS & EGGS	2	3	-1	-40
03 FISH	0	0	0	0
04 CEREALS	181	86	95	71
05 FRUIT & VEGTABLES	0	0	0	0
06 SUGAR & HONEY	0	0	0	0
07 COFFEE.TEA.COCOA.SPICES	0	6	-6	-200
08 FEEDING STUFF FOR ANIMALS	3	1	2	100
09 MISC FOOD PREPARATIONS	4	1	3	120
1 BEVERAGES & TOBACCO	6	1	5	143
11 BEVERAGES	6	1	5	143
12 TOBACCO	0	0	0	0
2 CRUDE MATERIALS.INEDIBLE	17	18	-1	-6
21 HIDES.SKINS.FURSKINS	0	0	0	0
22 OIL-SEEDS.NUTS & KERNELS	0	0	0	0
23 CRUDE RUBBER	4	4	0	0
24 WOOD.LUMBER.CORK	0	0	0	0
25 PULP & WASTE PAPER	0	0	0	0
26 TEXTILE FIBRES	7	12	-5	-53
27 CRUDE FERTILIZERS & MINERAL	3	0	3	200
28 METALLIFEROUS ORES. SCRAP	1	2	-1	-67
29 CRUDE ANIMAL.VEG MATRLS.NES	1	1	0	0
3 MINERALS FUELS.LUBRICANTS	1	3	-2	-100
32 COAL.COKE & BRIQUETTES	0	0	0	0
33 PETROLEUM. PETROLEUM PRODUC	1	3	-2	-100
34 GAS.NATURAL & MFG	0	0	0	0
35 ELECTRIC ENERGY	0	0	0	0
4 ANIMAL.VEGETABLE OILS. FATS	0	0	0	0
41 ANIMAL OILS AND FATS	0	0	0	0
42 FIXED VEG OILS & FATS	0	0	0	0
43 PROCESSED ANIMAL. VEG. OILS	0	0	0	0
5 CHEMICALS	157	128	29	20
51 ORGANIC CHEMICALS	72	68	4	6
52 INORGANIC CHEMICALS	2	1	1	67
53 DYEING.TANNING.COLORING MTR	4	5	-1	-22
54 MEDICINAL.PHARMACEUTICAL PR	17	10	7	52
55 ESSENTIAL OILS & PERFUME	3	5	-2	-50
56 FERTILIZERS. MFG	16	4	12	120
57 PLASTICS IN PRIMARY FORM	24	15	9	46
58 PLASTICS IN NON-PRIMARY FORM	2	0	2	200
59 CHEMICAL MATERIALS. PRODS.N	18	19	-1	-5

Table A-19. 1992 Trade Flow from France to China (continued)

SITC Revision-3 Code/DESC	China reported imports from France [in million U.S. dollars]	France reported exports to China	Difference between China imports and France exports	Percent difference China imports and France exports
6 MANUFACTURED GOODS	93	137	-44	-38
61 LEATHER & DRESSED FURSKINS	6	7	-1	-15
62 RUBBER MFGS.NES	2	2	0	0
63 WOOD & CORK MFGS	1	0	1	200
64 PAPER & PAPERBOARD	12	7	5	53
65 TEXTILE YARN & FABRICS	7	5	2	33
66 NON-METALLIC MINERAL MFGS.N	9	10	-1	-11
67 IRON AND STEEL	38	74	-36	-64
68 NON-FERROUS METALS	5	7	-2	-33
69 MANUFACTURERS OF METAL.NES	12	26	-14	-74
7 MACHINERY & TRANSPORT EQUIP	987	951	36	4
71 POWER GEN. MACHINERY	255	259	-4	-2
72 SPECIAL INDUSTRY MACH.	126	90	36	33
73 METAL WORKING MACHINERY	30	34	-4	-13
74 GENERAL INDUSTRIAL MACH	91	93	-2	-2
75 OFFICE MACHINES. A.D.P	9	14	-5	-43
76 TELECOMMUNICATIONS EQUIP	88	76	12	15
77 ELECTRICAL MACHINERY	101	85	16	17
78 ROAD VEHICLES	239	228	11	5
79 OTHER TRANSPORT	49	71	-22	-37
8 MISCELLANEOUS MANUFACTURED	40	55	-15	-32
81 PREFAB BLDG, SANITARY.ETC	1	0	1	200
82 FURNITURE	0	1	-1	-200
83 TRAVEL GOODS.HANDBAGS	0	0	0	0
84 CLOTHING	0	0	0	0
85 FOOTWEAR	0	0	0	0
87 SCIENTIFIC INSTRUMENTS.	29	47	-18	-47
88 PHOTOGRAPHIC APPARATUS	3	3	0	0
89 MISC MFG ARTICLES.NES	8	4	4	67
9 GOODS NOT CLASSIFIED BY KIN	0	0	0	0

Source: United Nations commodity trade data, SITC revision 3.

Table A-20. 1992 Trade Flow from China to France

SITC Revision-3 Code/DESC	China reported exports to France	France reported imports from China	Difference between China exports and France imports	Percent difference China exports and France imports
	[in million U.S. dollars]			
TOTAL TRADE	764	3503	-2739	-128
0 FOOD & LIVE ANIMALS	92	217	-125	-81
00 LIVE ANIMALS	0	1	-1	-200
01 MEAT	12	29	-17	-83
02 DAIRY PRODS & EGGS	0	0	0	0
03 FISH	18	30	-12	-50
04 CEREALS	1	4	-3	-120
05 FRUIT & VEGTABLES	31	97	-66	-103
06 SUGAR & HONEY	1	7	-6	-150
07 COFFEE.TEA.COCOA.SPICES	10	33	-23	-107
08 FEEDING STUFF FOR ANIMALS	17	12	5	34
09 MISC FOOD PREPARATIONS	1	4	-3	-120
1 BEVERAGES & TOBACCO	5	6	-1	-18
11 BEVERAGES	2	4	-2	-67
12 TOBACCO	3	2	1	40
2 CRUDE MATERIALS.INEDIBLE	20	82	-62	-122
21 HIDES.SKINS.FURSKINS	0	0	0	0
22 OIL-SEEDS.NUTS & KERNELS	2	20	-18	-164
23 CRUDE RUBBER	0	0	0	0
24 WOOD.LUMBER.CORK	0	0	0	0
25 PULP & WASTE PAPER	0	0	0	0
26 TEXTILE FIBRES	3	23	-20	-154
27 CRUDE FERTILIZERS & MINERAL	2	7	-5	-111
28 METALLIFEROUS ORES. SCRAP	3	9	-6	-100
29 CRUDE ANIMAL.VEG MATRLS.NES	12	22	-10	-59
3 MINERALS FUELS.LUBRICANTS	47	92	-45	-65
32 COAL.COKE & BRIQUETTES	46	92	-46	-67
33 PETROLEUM. PETROLEUM PRODUC	0	0	0	0
34 GAS.NATURAL & MFG	0	0	0	0
35 ELECTRIC ENERGY	0	0	0	0
4 ANIMAL.VEGETABLE OILS. FATS	5	7	-2	-33
41 ANIMAL OILS AND FATS	0	0	0	0
42 FIXED VEG OILS & FATS	5	7	-2	-33
43 PROCESSED ANIMAL. VEG. OILS	0	0	0	0
5 CHEMICALS	64	127	-63	-66
51 ORGANIC CHEMICALS	13	42	-29	-105
52 INORGANIC CHEMICALS	21	20	1	5
53 DYEING.TANNING.COLORING MTR	0	1	-1	-200
54 MEDICINAL.PHARMACEUTICAL PR	10	33	-23	-107
55 ESSENTIAL OILS & PERFUME	9	14	-5	-43
56 FERTILIZERS. MFG	0	0	0	0
57 PLASTICS IN PRIMARY FORM	0	3	-3	-200
58 PLASTICS IN NON-PRIMARY FORM	0	1	-1	-200
59 CHEMICAL MATERIALS. PRODS.N	11	14	-3	-24

Table A-20. 1992 Trade Flow from China to France (continued)

SITC Revision-3 Code/DESC	China reported exports to France	France reported imports from China	Difference between China exports and France imports	Percent difference China exports and France imports
	[in million U.S. dollars]			
6 MANUFACTURED GOODS	130	336	-206	-88
61 LEATHER & DRESSED FURSKINS	2	5	-3	-86
62 RUBBER MFGS.NES	4	4	0	0
63 WOOD & CORK MFGS	10	25	-15	-86
64 PAPER & PAPERBOARD	4	17	-13	-124
65 TEXTILE YARN & FABRICS	51	127	-76	-85
66 NON-METALLIC MINERAL MFGS.N	17	60	-43	-112
67 IRON AND STEEL	9	4	5	77
68 NON-FERROUS METALS	0	9	-9	-200
69 MANUFACTURERS OF METAL.NES	33	85	-52	-88
7 MACHINERY & TRANSPORT EQUIP	53	623	-570	-169
71 POWER GEN. MACHINERY	2	12	-10	-143
72 SPECIAL INDUSTRY MACH.	1	4	-3	-120
73 METAL WORKING MACHINERY	4	7	-3	-55
74 GENERAL INDUSTRIAL MACH	12	43	-31	-113
75 OFFICE MACHINES. A.D.P	1	53	-52	-193
76 TELECOMMUNICATIONS EQUIP	4	291	-287	-195
77 ELECTRICAL MACHINERY	19	160	-141	-158
78 ROAD VEHICLES	8	49	-41	-144
79 OTHER TRANSPORT	3	3	0	0
8 MISCELLANEOUS MANUFACTURED	349	2014	-1665	-141
81 PREFAB BLDG, SANITARY.ETC	3	28	-25	-161
82 FURNITURE	9	38	-29	-123
83 TRAVEL GOODS.HANDBAGS	15	259	-244	-178
84 CLOTHING	172	605	-433	-111
85 FOOTWEAR	65	216	-151	-107
87 SCIENTIFIC INSTRUMENTS.	3	15	-12	-133
88 PHOTOGRAPHIC APPARATUS	10	106	-96	-166
89 MISC MFG ARTICLES.NES	70	748	-678	-166
9 GOODS NOT CLASSIFIED BY KIN	0	0	0	0

Source: United Nations commodity trade data, SITC revision 3.

Table A-21. 1992 Trade Flow from Hong Kong to China

SITC Revision-3 Code/DESC	China reported imports from Hong Kong [in million U.S. dollars]	Hong Kong reported exports to China	Difference between China imports and Hong Kong exports	Percent difference China imports and Hong Kong exports
TOTAL TRADE	20534	8006	12528	88
0 FOOD & LIVE ANIMALS	106	58	48	58
00 LIVE ANIMALS	1	0	1	110
01 MEAT	4	1	3	107
02 DAIRY PRODS & EGGS	5	4	1	14
03 FISH	20	3	17	153
04 CEREALS	16	19	-3	-18
05 FRUIT & VEGTABLES	5	3	2	45
06 SUGAR & HONEY	9	8	1	15
07 COFFEE.TEA.COCOA.SPICES	2	1	1	86
08 FEEDING STUFF FOR ANIMALS	27	4	23	152
09 MISC FOOD PREPARATIONS	18	15	3	16
1 BEVERAGES & TOBACCO	73	88	-15	-18
11 BEVERAGES	17	11	6	45
12 TOBACCO	56	77	-21	-31
2 CRUDE MATERIALS.INEDIBLE	307	126	181	83
21 HIDES.SKINS.FURSKINS	35	2	33	175
22 OIL-SEEDS.NUTS & KERNELS	0	0	0	-200
23 CRUDE RUBBER	23	0	23	200
24 WOOD.LUMBER.CORK	7	2	5	123
25 PULP & WASTE PAPER	47	37	10	25
26 TEXTILE FIBRES	90	6	84	174
27 CRUDE FERTILIZERS & MINERAL	13	0	13	199
28 METALLIFEROUS ORES. SCRAP	74	78	-4	-5
29 CRUDE ANIMAL.VEG MATRLS.NES	18	2	16	168
3 MINERALS FUELS.LUBRICANTS	414	270	144	42
32 COAL.COKE & BRIQUETTES	0	0	0	0
33 PETROLEUM. PETROLEUM PRODUC	118	0	118	200
34 GAS.NATURAL & MFG	13	0	13	200
35 ELECTRIC ENERGY	283	270	13	5
4 ANIMAL.VEGETABLE OILS. FATS	37	8	29	127
41 ANIMAL OILS AND FATS	7	6	1	16
42 FIXED VEG OILS & FATS	29	2	27	170
43 PROCESSED ANIMAL. VEG. OILS	1	0	1	196
5 CHEMICALS	2592	758	1834	109
51 ORGANIC CHEMICALS	133	0	133	199
52 INORGANIC CHEMICALS	43	1	42	190
53 DYEING.TANNING.COLORING MTR	222	92	130	82
54 MEDICINAL.PHARMACEUTICAL PR	36	27	9	28
55 ESSENTIAL OILS & PERFUME	37	26	11	35
56 FERTILIZERS. MFG	1	0	1	200
57 PLASTICS IN PRIMARY FORM	1511	391	1120	118
58 PLASTICS IN NON-PRIMARY FORM	383	144	239	90
59 CHEMICAL MATERIALS. PRODS.N	226	76	150	99

Table A-21. 1992 Trade Flow from Hong Kong to China (continued)

SITC Revision-3 Code/DESC	China reported imports from Hong Kong [in million U.S. dollars]	Hong Kong reported exports to China	Difference between China imports and Hong Kong exports	Percent difference China imports and Hong Kong exports
6 MANUFACTURED GOODS	7134	1756	5378	121
61 LEATHER & DRESSED FURSKINS	450	92	358	132
62 RUBBER MFGS.NES	40	5	35	159
63 WOOD & CORK MFGS	43	6	37	154
64 PAPER & PAPERBOARD	573	271	302	72
65 TEXTILE YARN & FABRICS	4551	973	3578	130
66 NON-METALLIC MINERAL MFGS.N	250	32	218	155
67 IRON AND STEEL	379	32	347	169
68 NON-FERROUS METALS	443	114	329	118
69 MANUFACTURERS OF METAL.NES	406	233	173	54
7 MACHINERY & TRANSPORT EQUIP	6640	2718	3922	84
71 POWER GEN. MACHINERY	388	88	300	126
72 SPECIAL INDUSTRY MACH.	1247	323	924	118
73 METAL WORKING MACHINERY	271	46	225	142
74 GENERAL INDUSTRIAL MACH	548	219	329	86
75 OFFICE MACHINES. A.D.P	433	336	97	25
76 TELECOMMUNICATIONS EQUIP	1156	1090	66	6
77 ELECTRICAL MACHINERY	2480	614	1866	121
78 ROAD VEHICLES	87	1	86	194
79 OTHER TRANSPORT	30	0	30	199
8 MISCELLANEOUS MANUFACTURED	2797	1911	886	38
81 PREFAB BLDG, SANITARY.ETC	62	54	8	14
82 FURNITURE	42	21	21	65
83 TRAVEL GOODS.HANDBAGS	38	10	28	120
84 CLOTHING	312	430	-118	-32
85 FOOTWEAR	109	10	99	165
87 SCIENTIFIC INSTRUMENTS.	128	43	85	100
88 PHOTOGRAPHIC APPARATUS	947	517	430	59
89 MISC MFG ARTICLES.NES	1158	826	332	33
9 GOODS NOT CLASSIFIED BY KIN	433	310	123	33

Note: Includes Hong Kong domestic exports only.

Source: United Nations commodity trade data, SITC revision 3.

Table A-22. 1992 Trade Flow from China to Hong Kong

SITC Revision-3 Code/DESC	China reported exports to Hong Kong	Hong Kong reported imports from China	Difference between China exports and Hong Kong imports	Percent difference China exports and Hong Kong imports
	[in million U.S. dollars]			
TOTAL TRADE	37512	45798	-8286	-20
0 FOOD & LIVE ANIMALS	1586	1845	-259	-15
00 LIVE ANIMALS	429	424	5	1
01 MEAT	140	159	-19	-13
02 DAIRY PRODS & EGGS	45	49	-4	-9
03 FISH	258	292	-34	-12
04 CEREALS	79	71	8	11
05 FRUIT & VEGTABLES	389	584	-195	-40
06 SUGAR & HONEY	63	39	24	46
07 COFFEE.TEA.COCOA.SPICES	68	99	-31	-37
08 FEEDING STUFF FOR ANIMALS	57	39	18	37
09 MISC FOOD PREPARATIONS	57	88	-31	-43
1 BEVERAGES & TOBACCO	311	368	-57	-17
11 BEVERAGES	168	194	-26	-14
12 TOBACCO	144	174	-30	-19
2 CRUDE MATERIALS.INEDIBLE	540	711	-171	-27
21 HIDES.SKINS.FURSKINS	17	21	-4	-20
22 OIL-SEEDS.NUTS & KERNELS	29	31	-2	-6
23 CRUDE RUBBER	3	6	-3	-66
24 WOOD.LUMBER.CORK	12	16	-4	-29
25 PULP & WASTE PAPER	1	4	-3	-116
26 TEXTILE FIBRES	166	192	-26	-15
27 CRUDE FERTILIZERS & MINERAL	71	68	3	5
28 METALLIFEROUS ORES. SCRAP	32	89	-57	-94
29 CRUDE ANIMAL.VEG MATRLS.NES	209	285	-76	-31
3 MINERALS FUELS.LUBRICANTS	221	253	-32	-13
32 COAL.COKE & BRIQUETTES	70	65	5	7
33 PETROLEUM. PETROLEUM PRODUC	150	186	-36	-21
34 GAS.NATURAL & MFG	1	2	-1	-56
35 ELECTRIC ENERGY	0	0	0	0
4 ANIMAL.VEGETABLE OILS. FATS	64	43	21	39
41 ANIMAL OILS AND FATS	0	0	0	-200
42 FIXED VEG OILS & FATS	61	42	19	36
43 PROCESSED ANIMAL. VEG. OILS	3	1	2	117
5 CHEMICALS	1133	1214	-81	-7
51 ORGANIC CHEMICALS	220	209	11	5
52 INORGANIC CHEMICALS	148	118	30	23
53 DYEING.TANNING.COLORING MTR	163	164	-1	-1
54 MEDICINAL.PHARMACEUTICAL PR	226	205	21	10
55 ESSENTIAL OILS & PERFUME	109	125	-16	-14
56 FERTILIZERS. MFG	2	2	0	-13
57 PLASTICS IN PRIMARY FORM	57	94	-37	-49
58 PLASTICS IN NON-PRIMARY FORM	108	79	29	31
59 CHEMICAL MATERIALS. PRODS.N	99	220	-121	-76

Table A-22. 1992 Trade Flow from China to Hong Kong (continued)

SITC Revision-3 Code/DESC	China reported exports to Hong Kong	Hong Kong reported imports from China	Difference between China exports and Hong Kong imports	Percent difference China exports and Hong Kong imports
	[in million U.S. dollars]			
6 MANUFACTURED GOODS	6950	7471	-521	-7
61 LEATHER & DRESSED FURSKINS	130	144	-14	-10
62 RUBBER MFGS.NES	61	52	9	16
63 WOOD & CORK MFGS	196	165	31	17
64 PAPER & PAPERBOARD	263	250	13	5
65 TEXTILE YARN & FABRICS	4237	4800	-563	-12
66 NON-METALLIC MINERAL MFGS.N	673	635	38	6
67 IRON AND STEEL	200	189	11	6
68 NON-FERROUS METALS	295	361	-66	-20
69 MANUFACTURERS OF METAL.NES	895	874	21	2
7 MACHINERY & TRANSPORT EQUIP	7978	9623	-1645	-19
71 POWER GEN. MACHINERY	266	372	-106	-33
72 SPECIAL INDUSTRY MACH.	194	183	11	6
73 METAL WORKING MACHINERY	52	51	1	3
74 GENERAL INDUSTRIAL MACH	457	641	-184	-34
75 OFFICE MACHINES. A.D.P	818	1032	-214	-23
76 TELECOMMUNICATIONS EQUIP	3098	4077	-979	-27
77 ELECTRICAL MACHINERY	2458	2750	-292	-11
78 ROAD VEHICLES	534	460	74	15
79 OTHER TRANSPORT	101	57	44	55
8 MISCELLANEOUS MANUFACTURED	18712	23968	-5256	-25
81 PREFAB BLDG, SANITARY.ETC	291	411	-120	-34
82 FURNITURE	366	395	-29	-8
83 TRAVEL GOODS.HANDBAGS	1109	2049	-940	-60
84 CLOTHING	8118	9329	-1211	-14
85 FOOTWEAR	1640	3552	-1912	-74
87 SCIENTIFIC INSTRUMENTS.	176	193	-17	-9
88 PHOTOGRAPHIC APPARATUS	1578	1741	-163	-10
89 MISC MFG ARTICLES.NES	5435	6300	-865	-15
9 GOODS NOT CLASSIFIED BY KIN	18	301	-283	-177

Source: United Nations commodity trade data, SITC revision 3.

APPENDIX B
U.S.-CHINA TRADE ROUTES AND TRADE DISCREPANCIES

U.S.-CHINA TRADE ROUTES AND TRADE DISCREPANCIES

This appendix takes a closer look at China, Hong Kong, and U.S. trade statistics in an attempt to shed some light on the shift in the classification of exports by China starting in 1993. The lack of direct comparability across countries in definitions and statistics becomes apparent in this exercise.

From information collected on U.S. customs forms various trade routes for U.S. imports can be distinguished. One piece of information is the country of shipment or the country from which the goods began their journey to the United States. The country of shipment can differ from the country of origin if a person or company in a second country takes possession of the goods. For goods shipped by vessel, the last foreign port from which the ship left for the United States also is recorded by customs. Nearly 90 percent of U.S. imports from China are transported by vessel, and therefore, foreign port information exists for most transactions.

Using the data from U.S. customs forms and following Bureau of the Census, Foreign Trade Division interpretation of the data (U.S. Bureau of the Census 1994), three routes for U.S.-China trade are identifiable (Figure B-1). Route A represents direct trade between the two countries. U.S. customs records route A eastward trade as having China as the country of origin and country of shipment with a last foreign port of China or a country other than Hong Kong. Route B is trade in goods originating in China with country of shipment China but having Hong Kong as the last foreign port. Route B trade also is considered direct trade by the United States. Under route B trade, the goods do not clear Hong Kong customs and are not transferred to the possession of Hong Kong firms. Examples of route B trade include goods that leave China by boat and stop in the Hong Kong harbor to be loaded onto larger ocean going vessels or to take on more cargo before heading for the United States. Goods coming to the United States via route C are indirect imports with a country of origin China but Hong Kong or another third country as the country of shipment and last foreign port.

The volume of eastbound trade by each of the three routes in 1992 and 1993 is shown in the lower half of Figure B-1. Route A and route B trade were of similar magnitude in 1992, both more than US$ 5 billion. Route C trade was US$ 14.8 billion, greater than routes A and B combined.

The interpretation of these three routes does not match precisely with Hong Kong's trade statistics and definitions.[26] Hong Kong defines reexports as goods which have previously been imported into Hong Kong and which are reexported without having undergone

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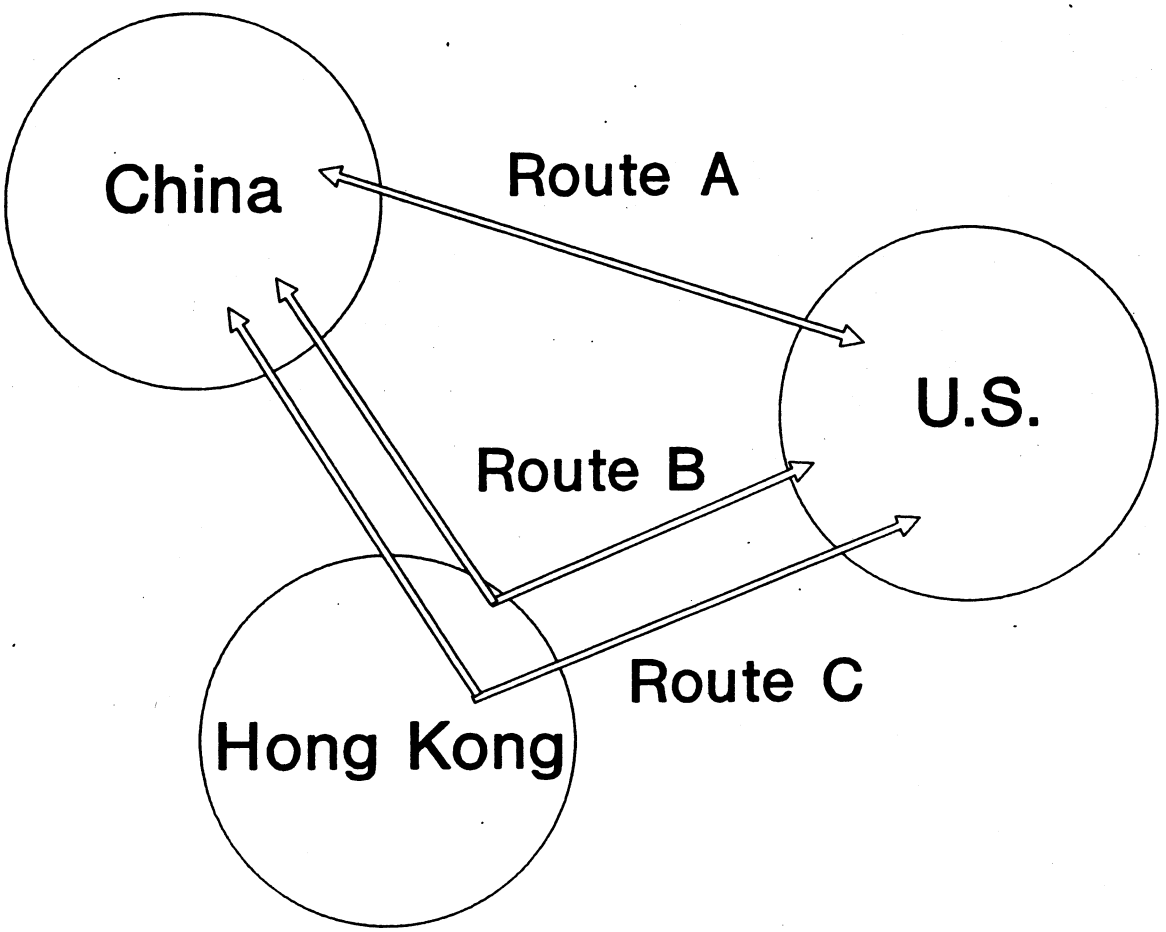
[26] There also is the question of how goods traveling directly from China to the United States (along Route A) but owned by or in the possession of a Hong Kong firm are classified. Hong Kong businesses are engaged in the direct shipment of Chinese products from China. The Hong Kong Trade Development Council (1991) found that 14 percent of Chinese products sold by surveyed Hong Kong companies were shipped directly from China and did not pass through Hong Kong.

in Hong Kong a manufacturing process which has changed permanently the shape, nature, form or utility of the product (Hong Kong Census and Statistics Department 1992). Reexports must involve a local customs declaration. Therefore, Hong Kong reexports best match route C trade. However, Hong Kong reexports of China origin to the United States were US$ 18.1 billion in 1992, over US$ 3 billion more than route C trade of US$ 14.8 billion. Hong Kong reported reexports of Chinese goods to the U.S. do match well with U.S. reported imports of Chinese goods with the last foreign port being Hong Kong (US$ 18.084 billion).

In 1992 China's reported exports to the United States were US$ 8.6 billion, greater than route A trade of US$ 5.3 billion, implying that China did record some of its exports that headed for Hong Kong as ultimately destined for the United States. However, China's reported exports were less than U.S. reported direct imports (the combined trade of routes A and B, US$ 10.9 billion). In 1993, China's reported exports nearly doubled to US$ 17 billion and exceeded U.S. reported direct imports or combined routes A and B (US$ 13.2 billion). Starting in 1993, China appears to be capturing all of direct trade to the United States and a portion of indirect trade in its exports statistics to the United States.

Figure B-1. U.S.-China Trade Routes



	1992 Eastbound Trade	1993 Eastbound Trade
	(in million U.S. dollars)	
U.S. Trade Statistics		
Route A	5337.4	6700.0
Route B	5594.5	6492.6
Route C	14795.7	18342.2
China Trade Statistics	8593.8	16964.7
Hong Kong reexports	18084.2	

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