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**The China–United States Bilateral Trade Balance:
How Big Is It Really?**

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by

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Abstract

There are huge discrepancies between the official Chinese and U.S. estimates of the bilateral trade balance. The discrepancies are caused by different treatments accorded to re-exports through Hong Kong, re-export markups, and trade in services. Deficit-shifting between China, on the one hand, and Hong Kong and Taiwan, on the other, due to direct investment in China from Taiwan and Hong Kong, is partly responsible for the growth in the China–United States bilateral trade deficit.

The 1995 China–United States bilateral balance of trade in goods and services, adjusted by both re-exports and re-export markups, may be estimated as US\$23.3 billion, a large deficit but considerably smaller than the often-cited official U.S. figure of US\$33.8 billion.

The China–United States Bilateral Trade Balance: How Big Is It Really?

*K.C. Fung and Lawrence J. Lau**

1. Introduction

United States–China relations are at a low point. When President Nixon and Chairman Mao met in China in early 1972, the United States and China were bound by one overriding concern: to contain the spread of Soviet power. Common opposition to perceived Soviet expansion formed the cornerstone of the relationship between the United States and China. This coincidence of interests allowed both countries to overlook and to smooth over many areas of difference. But now the Cold War is over, and a new form of relationship has yet to take shape.

The current list of problems facing the two countries is long. From an American perspective, the complaints include allegations of Chinese human rights violations; alleged Chinese arms sales to Iran, Iraq, and Pakistan; intellectual property rights violations; Chinese territorial claims in the South China Sea; alleged exports of goods made by Chinese prisoners; and, last but not least, the large and growing bilateral trade imbalance. From a Chinese perspective, among the most important prob-

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lems are issues related to the status of Taiwan,¹ perceived U.S. blockage of China's application for admission to the World Trade Organization (WTO), and the general suspicion that the United States is pursuing a policy of containment towards China.²

In this paper, we focus on the United States–China trade imbalance.³ It is well known in the economics profession that, in general, bilateral trade imbalances (or more broadly, bilateral current account imbalances, which include services, investment incomes, and transfers) need not be directly related to the extent of a trading partner's trade barriers. We will not dwell on that point here. However, in the case of the United States–China imbalance, there is no agreement on even the basic trade figures due to fundamental accounting and measurement problems concerning the size of the United States-China trade balance.

2. Re-exports via Hong Kong

According to the U.S. Department of Commerce, in 1993 the United States exported US\$8.8 billion to China while it imported US\$31.5 billion from China. This yields a reported Chinese merchandise trade surplus of US\$22.8 billion with the United States. But according to official Chinese sources, China in 1993 exported US\$17.0 billion to the United States and imported US\$10.7 billion from the United States. This means that China ran a merchandise trade surplus of only \$6.3 billion. The discrepancy is large. But at least both sides agreed that China was running a trade surplus.

In 1992, official American sources reported that the United States exported US\$7.4 billion to China and imported US\$25.7 billion from China, with China running a trade surplus of \$18.3 billion. In contrast, official Chinese sources indicated that China imported US\$8.9 billion from the United States and exported US\$8.6 billion to the United States. This implies that it is the United States, not China, that was running a *surplus* of \$0.3 billion. Thus in 1992 even the question of which country had the surplus was in dispute.

What are the major sources of such discrepancies? First and foremost is the large volume of re-exports that go through Hong Kong.⁴ Re-exports are goods that are shipped first to Hong Kong. Some entities in Hong Kong take legal possession of the goods. They then re-export the goods somewhere else.

Because the Hong Kong entities take legal possession, these goods have to clear customs, and the Hong Kong government maintains customs data on re-exports. The Hong Kong entities may also do some minor processing, including grading, packaging, or bottling. These operations do not fundamentally change the character of these goods, so that no Hong Kong origin is supposed to be conferred by the Hong Kong government.

China is the most important source of goods re-exported through Hong Kong. In 1995, China re-exported US\$82.3 billion of goods via Hong Kong, or 57 percent of total Hong Kong re-exports. A large proportion of the re-exports from China are products of outward processing commissioned by Hong Kong companies in China. China is also the largest market for Hong Kong's re-exports, accounting for US\$49.7 billion, or 35 percent of all goods re-exported through Hong Kong in 1995.⁵

It is the existence of the large quantity of re-exports via Hong Kong and the different treatment of these re-exports by the U.S. and Chinese statistical agencies that account for the large discrepancies between their respective trade figures.

3. Adjusting Chinese Trade Data by Hong Kong Re-exports

How do Hong Kong re-exports affect United States–China trade statistics? Until 1993, China counted all exports to Hong Kong, whether they were for consumption in Hong Kong or to be re-exported to the United States or elsewhere, as exports to Hong Kong. Chinese import statistics also did not fully differentiate between direct imports from Hong Kong and re-exports of U.S. or other foreign goods via Hong Kong. In other words, official Chinese statistics traditionally understate exports to the United States. They also understate, but to a smaller extent, imports from the United States. Starting in 1993, the Chinese government has been making efforts to trace fully the countries of origin of Chinese imports and the countries of destination of Chinese exports. But it is too early to tell whether these efforts have been completely successful.

The extent of re-exports of Chinese goods is large. For example, over the years 1989–1992, re-exports of Chinese goods via Hong Kong to the United States were on average more than 200 percent of Chinese recorded exports to the United States. Given the magnitude of these re-exports, any trade balances that do not fully reflect these economic activities will be grossly inaccurate. Furthermore, the return of Hong Kong to Chinese

sovereignty in July 1997 is not likely to improve the situation. According to the 1984 Sino-British agreement, Hong Kong after 1997 will remain a separate customs territory and a separate member of the WTO. In other words, whatever complicates the trade data because of a separate Hong Kong will still remain under the “one country, two systems” formula.

To adjust the Chinese trade figures, we treat the recorded Chinese imports and exports with the United States as *direct* imports and exports. To this direct trade, we add the indirect trade in the form of Hong Kong re-exports. The adjustments are shown in the following tables:⁶

Table 1

Adjusting Chinese Export Data by Hong Kong Re-exports (billion US\$)

	Official Chinese Exports to the United States (Chinese Data)	Hong Kong Re-export of Chinese goods to the United States (Hong Kong Data)	Our Estimate of Chinese Exports to the United States After Adjusting for Re-exports	Official U.S. Imports from China (U.S. Data)
1989	4.4	8.5	12.9	12.0
1990	5.2	10.5	15.7	15.2
1991	6.2	13.4	19.6	19.0
1992	8.6	18.1	26.7	25.7
1993	17.0	21.8	38.8	31.5
1994	21.5	25.3	46.8	38.8
1995	24.7	27.6	52.3	45.6

Sources: *China's Customs Statistics*, General Administration of Customs of the People's Republic of China, various years; *Hong Kong External Trade*, Hong Kong Census and Statistics Department, various years; *U.S. Foreign Trade Highlights*, U.S. Department of Commerce, various years.

In Table 1 above, we interpret exports in the official Chinese data as those that China exports directly to the United States. The indirect exports to the United States go through Hong Kong. As can be seen in columns 4 and 5, the adjusted Chinese exports are quite close to the official U.S. import data for the years 1989–1992. We know that the American import data trace through imports by their countries of origin and so have already taken re-exports into account. In other words, they do not need adjustments for Hong Kong re-exports.⁷ But the adjusted Chinese data and the U.S. import data began to diverge in 1993. This reflects the improved efforts on the Chinese side in tracing and incorporating re-exports into their export data. Since part of the re-exports may already have been

captured in the Chinese post-1993 export data, our adjustments will tend to overstate the extent of total (direct and indirect) Chinese exports to the United States. However, to maintain consistency, we continue to adjust the Chinese data in the same manner. In Table 2, we present Chinese import data using the same method.⁸

Table 2

Adjusting Chinese Import Data by Hong Kong Re-exports (billion US\$)

	Official Chinese Imports from United States (Chinese Data)	Hong Kong Re-exports of U.S. Goods to China (Hong Kong Data)	Our Estimate of Chinese Imports from the United States After Adjusting for Re-exports	Official U.S. Exports to China (U.S. Data)
1989	7.9	1.3	9.2	5.8
1990	6.6	1.3	7.9	4.8
1991	8.0	1.7	9.7	6.3
1992	8.9	2.4	11.3	7.4
1993	10.7	3.2	13.9	8.8
1994	14.0	3.7	17.7	9.3
1995	16.1	5.0	21.1	11.7

Sources: *China's Customs Statistics*, General Administration of Customs of the People's Republic of China, various years; *Hong Kong External Trade*, Hong Kong Census and Statistics Department, various years; *U.S. Foreign Trade Highlights*, U.S. Department of Commerce, various years.

Again, we treat imports in the official Chinese data as direct imports, and re-exports of U.S. goods to China as the indirect imports that have to be added to the official Chinese data. We know that, beginning in 1993, Chinese import data catch some, but not all, of the re-exports; but there is no easy way to determine the precise fraction. As an approximation, we simply treat recorded Chinese imports as including only direct imports. Our adjusted estimates for Chinese imports from the United States, therefore, also are subject to possible upward biases, especially after 1993. For a comparison, we present in column 5 the official U.S. export data. The adjusted Chinese import data are not particularly close to, and in fact are consistently and significantly higher than, the official U.S. export data. This is partly due to the fact that unlike official U.S. import data, U.S. export data are not immune to the problems of re-exports. We shall discuss this issue further when we do the exercise of adjusting the U.S. trade data. Returning to the issue of the Chinese figures, we see from Tables 1 and 2

that Chinese official statistics understate Chinese exports by large amounts. At the same time, they also understate Chinese imports from the United States, even though the magnitudes are smaller.

In the next table, we present the U.S.–China trade balance, based on the adjusted Chinese export and import data of Tables 1 and 2.

Table 3
Adjusting China's Trade Balance Data by Hong Kong Re-exports
(billion US\$)

	Our Estimate of Chinese Exports to the United States After Adjusting for Re-exports	Our Estimate of Chinese Imports from the United States After Adjusting for Re-exports	Our Estimate of Chinese Trade Balance with the United States After Adjusting for Re-exports	Official Chinese Trade Balance with the United States (Chinese Data)
1989	12.9	9.2	+3.7	-3.5
1990	15.7	7.9	+7.8	-1.4
1991	19.6	9.7	+9.9	-1.8
1992	26.7	11.3	+15.4	-0.3
1993	38.8	13.9	+24.9	+6.3
1994	46.8	17.7	+29.1	+7.5
1995	52.3	21.1	+31.2	+8.6

Sources: Same as Table 1 and 2.

Note: A positive sign in Table 3 indicates a trade surplus for China with the United States. A negative sign indicates a trade deficit with the United States.

As we can see from Table 3, the adjusted Chinese trade balance is very different from and considerably larger than the official Chinese trade balance. In fact, from 1989 to 1992, the adjusted data show Chinese surpluses; but the official Chinese data show modest Chinese deficits with the United States. Thus our adjustments change not only the magnitudes of the balances, but also the directions. Since 1993, Chinese authorities have been making efforts to trace re-exports. While the discrepancies have remained large, at least the signs are now in agreement.

4. Adjusting U.S. Trade Data by Hong Kong Re-exports

It may not be too surprising to find that Chinese trade statistics have some flaws. But the fact is that re-exports also make U.S. trade statistics inaccurate. U.S. Customs does not fully know and so cannot fully record the quantity of goods that are first shipped to Hong Kong and then re-exported to China. Re-exports mean that the goods change legal possession in Hong Kong. The original exporters in the United States may have no knowledge of where the goods (i.e., American goods) end up. Relative to the published figures of exports, the extent of re-exports of U.S. goods to China is large (though not as large as the re-exports of Chinese goods to the United States). On average, over the years 1989–1995, re-exports of U.S. goods to China via Hong Kong are 32.5 percent of the recorded U.S. exports to China.

In the next two tables, we adjust the U.S. trade data by taking re-exports into account.⁹ We assume that official U.S. figures only measure direct exports. Hong Kong re-exports of U.S. goods will have to be added to the officially recorded exports. On the import side, we know that the U.S. data do trace through countries of origin, and so they are correct at least as far as re-exports are concerned.

Table 4
Adjusting U.S. Export Data by Hong Kong Re-exports (billion US\$)

	Official U.S. Exports to China (U.S. Data)	Hong Kong Re-exports of U.S. Goods to China (Hong Kong Data)	Our Estimate of U.S. Exports to China After Adjusting for Re-exports	Official Chinese Imports from United States (Chinese Data)
1989	5.8	1.3	7.1	7.9
1990	4.8	1.3	6.1	6.6
1991	6.3	1.7	8.0	8.0
1992	7.4	2.4	9.8	8.9
1993	8.8	3.2	12.0	10.7
1994	9.3	3.7	13.0	14.0
1995	11.7	5.0	16.7	16.1

Sources: *U.S. Foreign Trade Highlights*, U.S. Department of Commerce, various years; *Exports, Imports, and Balance of Goods by Selected Countries and Geographic Areas—1995*, U.S. Bureau of the Census, 1996; *Hong Kong External Trade*, Hong Kong Census and Statistics Department, various years.

Note: The 1995 official U.S. export figure is preliminary.

From Table 4, we can see that the adjusted U.S. exports are fairly close to the recorded Chinese imports. However, since recorded Chinese imports are measured on the CIF (cost, insurance, and freight) basis whereas U.S. exports and Hong Kong re-exports are measured on the FAS (free alongside ship) and FOB (free on board) bases, respectively, column 5 should be higher than column 4. But this is not always the case, suggesting the possibility of under-declaration of the value of Chinese imports. On the import side, since we treat the recorded U.S. imports as basically correct with respect to re-exports, we do not need to adjust the data. Using the adjusted U.S. exports and the official U.S. import figures, we obtain the adjusted U.S. trade balance with China based on U.S. data in Table 5.

Table 5
Adjusting U.S. Trade Balance Data by Hong Kong Re-exports
(billion US\$)

	Our Estimate of U.S. Exports to China After Adjusting for Re-exports	Official U.S. Imports from China (U.S. Data)	Our Estimate of U.S.-China Trade Balance After Adjusting for Re-exports	Official U.S.-China Trade Balance (U.S. Data)
1989	7.1	12.0	-4.9	-6.2
1990	6.1	15.2	-9.1	-10.4
1991	8.0	19.0	-11.0	-12.7
1992	9.8	25.7	-15.9	-18.3
1993	12.0	31.5	-19.5	-22.8
1994	13.0	38.8	-25.8	-29.5
1995	16.7	45.6	-28.9	-33.8

Sources: *U.S. Foreign Trade Highlights*, Department of Commerce, various years; *Exports, Imports, and Balance of Goods by Selected Countries and Geographic Areas—1995*, U.S. Bureau of the Census, 1996; *Hong Kong External Trade*, Hong Kong Census and Statistics Department, various years.

Note: The 1995 official U.S. import and trade balance figures are preliminary.

To summarize our comparison of trade balances based on both countries' trade data, we turn to Table 6 below.

Table 6
U.S.-China Trade Balances Adjusted for Re-exports
(U.S. and Chinese Data) (billion US\$)

	Official U.S.- China Trade Balance (U.S. Data)	Official U.S.- China Trade Balance (Chinese Data)	Our Estimate of U.S.-China Trade Balance After Adjusting for Re-exports (U.S. Data)	Our Estimate of U.S.-China Trade Balance After Adjusting for Re-exports (Chinese Data)
1989	-6.2	+3.5	-4.9	-3.7
1990	-10.4	+1.4	-9.1	-7.8
1991	-12.7	+1.8	-11.0	-9.9
1992	-18.3	+0.3	-15.9	-15.4
1993	-22.8	-6.3	-19.5	-24.9
1994	-29.5	-7.5	-25.8	-29.1
1995	-33.8	-8.6	-28.9	-31.2

Sources: Same as Table 3 and Table 5.

Note: A negative sign indicates a U.S. trade deficit with China. A positive sign indicates a U.S. trade surplus with China.

As can be seen in Table 6, the adjusted trade balances are quite different from their official counterparts. Adjusting the Chinese data by re-exports will change the trade balances in most years from U.S. trade surpluses to trade deficits. The results of adjusting the U.S. data are less dramatic, but nonetheless significant. In all years considered, the U.S. trade deficits have to be adjusted downwards. Based on Table 6, both countries are right to some degree in their debates over the trade balances. The U.S. government is right in stating that bilateral trade deficits are large and have been growing in recent years. The Chinese government also is correct in stating that the U.S. official statistics overstate the amount of the imbalances. What is significant is that columns 4 and 5 are not that far apart, especially taking into account that from 1993 onwards the figures in column 5 are probably overstated because of Chinese efforts to incorporate re-exports via Hong Kong.

5. Re-export Markups and Trade Data

Another factor that complicates trade data is the issue of re-export markups. When goods are exported to Hong Kong, the prices of the goods are increased before being re-exported elsewhere. This is the markup due to Hong Kong re-exports. Several surveys conducted by the Hong Kong Trade Development Council on this issue have concluded that the average markup on re-exports of non-Chinese goods is about 14 percent, while the average re-export markup on Chinese goods is significantly higher. There are indications from Hong Kong traders and Hong Kong government officials that the average re-export markup on Chinese goods is around 25 percent.

To illustrate how re-exports and re-export markups can potentially affect trade statistics, let us suppose, in a hypothetical example, that China exports US\$2 worth of goods. One dollar of goods goes directly to the United States. Another dollar of goods goes through Hong Kong. The Hong Kong re-export process adds a markup of 25 percent, then re-exports it to the United States. Chinese Customs records a one-dollar export to the United States and a one-dollar export to Hong Kong. In contrast, U.S. Customs records \$2.25 worth of exports from China. In some respects, both governments have a legitimate claim that they are right in their trade data. The discrepancy is large—a difference of \$1.25, or 125 percent. Thus, both re-exports and re-export markups can be responsible for the trade data discrepancy.

To take re-export margins into account, we have to adjust the re-export data by the extent of the markup. After discounting by the appropriate re-export margins, we add the adjusted re-exports to the direct import and export figures. The adjusted trade balances are presented in Table 7. The markups we use in the adjustments are 14 percent for U.S. goods re-exported to China and 25 percent for Chinese goods re-exported to the United States.¹⁰

Table 7
 Adjusting U.S.-China Trade Balances by Hong Kong Re-exports
 and Re-export Markups (billion US\$)

Year	Official U.S.- China Trade Balance (U.S.Data)	Official U.S.-China Trade Balance (Chinese Data)	Trade Balance Adjusted for Re-exports (U.S. Data)	Trade Balance Adjusted for Re-exports and Re-export Markups (U.S. Data)	Trade Balance Adjusted for Re-exports (Chinese Data)	Trade Balance Adjusted for Re-exports and Re-export Markups (Chinese Data)
89	-6.2	+3.5	-4.9	-3.4	-3.7	-2.2
90	-10.4	+1.4	-9.1	-7.2	-7.8	-5.9
91	-12.7	+1.8	-11.0	-8.5	-9.9	-7.4
92	-18.3	+0.3	-15.9	-12.6	-15.4	-12.1
93	-22.8	-6.3	-19.5	-15.5	-24.9	-20.9
94	-29.5	-7.5	-25.8	-21.1	-29.1	-24.4
95	-33.8	-8.6	-28.9	-24.0	-31.2	-26.3

Sources: Same as Table 3 and Table 6.

Note: A negative sign indicates a U.S. trade deficit with China. A positive sign indicates a U.S. trade surplus with China.

As we can see, including adjustments by the re-export markups will further reduce the estimates of the bilateral trade balances. For 1995, if we use the Chinese data, the estimate drops from a U.S. deficit of US\$31.2 billion to US\$26.3 billion, compared to the official Chinese estimate of US\$8.6 billion. If we use the U.S. data, the estimated deficit drops from US\$28.9 billion to US\$24.0 billion, compared to the official U.S. estimate of US\$33.8 billion. Thus, the official estimate overstates the U.S. deficit in 1995 by almost US\$10 billion.

Interpretation of the Re-export Markups

Should the trade data be adjusted for re-export markups? It depends very much on the interpretation of the nature of the markups. If we view these markups as reflecting profits of the Hong Kong middlemen, then a case can be made that this markup should be attributed to Hong Kong and not China.

Hong Kong middlemen may be able to charge high markups for U.S. goods because they are much more familiar with the economic system in China. There have been reports that indicate that tariffs can vary depending on the port of entry and personal negotiations. Hong Kong middlemen may have better information about where, how, and with whom exporters should negotiate. This inside information reduces the risks of conducting business with China and allows the Hong Kong traders to earn the higher markups.

For re-exports of Chinese goods, Hong Kong traders may be able to charge an even higher markup because of China's lower product quality. Furthermore, Mainland Chinese firms may not be familiar with the characteristics of the U.S. market and U.S. importers. The Hong Kong middlemen can then charge a higher premium for locating overseas customers and for re-packaging.

Interpreting the re-export margins as the economic rents of Hong Kong traders will mean that the United States–China trade balance should be discounted by the extent of the markups. Under this interpretation, we should use column 5 or 7 of Table 7 as our estimates of the bilateral trade balances. However, there are also other possibilities. Given the intensity of competition in the Hong Kong trading sector, it may be difficult to explain why the markups remain so high in general and furthermore why the markups are so much higher with re-exports of Chinese products.

One possibility is that the markups reflect transfer pricing. Mainland Chinese exporters, many of which are owned by Hong Kong or Taiwan interests, may wish to register their profits in Hong Kong because of lower taxes and looser regulations. They may artificially depress the price of exports to the Hong Kong trading entities, which will in turn add a higher markup upon re-exporting, thus leaving the profits in Hong Kong. In addition, a significant proportion of the re-export firms based in Hong Kong are actually owned by Mainland Chinese enterprises. The re-export markups are then, in essence, just part of the profits of the Mainland Chinese “multinationals.” In this case, there is no need for adjusting the United States–China trade balance by these margins since these markups should still be attributed to China, despite the fact that the traders are located in Hong Kong.

A variant of the above is that instead of transferred profits to a Hong Kong entity, the markups may simply reflect graft. The profits may be registered in the name of an independent trader who is either a close friend or a relative of the management of a Mainland Chinese enterprise that is based in Hong Kong. The trader may be a front, or may actually perform some legitimate function. The profits booked in Hong Kong are subsequently divided up between the Mainland Chinese producers and the Hong

Kong-based partner. The high re-export markup involving Chinese goods is simply a way for the Mainland producer to skim part of the profits associated with exports. In this case, the phony re-export profits still belong primarily to Mainland Chinese nationals. Consequently, there is no need to adjust the trade data by the markups.

Another form of graft may be due to the need to bribe local Mainland Chinese officials in order to conduct business with China. If Hong Kong traders wish to obtain Chinese goods for exports or if they wish to export U.S. goods to China, they may need to perform some creative negotiations to get the best deal possible. To ease the process, Hong Kong traders may make “transaction-smoothing payments.” To cover such costs, a higher margin is required. These “profits” again go primarily to the Mainland Chinese nationals.

The high re-export markup of Chinese goods may also represent a part of the large illegal capital outflows from China. By some estimates, Mainland Chinese capital outflows to Hong Kong amounted to more than US\$20 billion in 1993. A relatively easy way to move capital out is to book it as re-export profits in Hong Kong. This is often done by first under-invoicing Chinese exports to Hong Kong and then increasing the markup of re-exports. Similarly, imports to China may be over-invoiced. A large proportion of the illegal Chinese capital outflow actually winds up being re-invested in China. By first going to Hong Kong, the originally Chinese capital can be designated as foreign and be entitled to some tax concessions. The re-export markups play a useful role in such illegal capital roundtripping.

6. Balance of Trade in Goods and Services

So far we have focused on the merchandise trade balance between China and the United States. But it is well known that the United States is a net exporter of services. There is no particular reason why we should focus exclusively on the trade balance in goods and ignore the trade balance in services. Unfortunately, before 1992, data on U.S. trade in services with China are lumped together with trade in services with other countries so that we cannot obtain figures on bilateral United States–China service trade for those years. Since services are not involved in re-exports, we can simply add the balance of services to the various trade balances of goods

given in Table 7. Table 8 shows the balance of trade and services between the two countries for 1992–1994.

Table 8
Estimated U.S.-China Balance of Trade in Goods and Services
(billion US\$)

	Official U.S.- China Goods Trade Balance (U.S. Data)	Official U.S. Service Exports/Imports with China (U.S. Data)	Our Estimate of U.S.-China Balance in Goods and Services After Adjusting for Re-exports (U.S. Data)	Our Estimate of U.S.-China Balance in Goods and Services After Adjusting for Re-exports and Re-export Markups (U.S. Data)
1992	-18.3	1.59/1.11	-15.4	-12.1
1993	-22.8	1.97/1.38	-18.9	-15.0
1994	-29.5	2.18/1.48	-25.1	-20.4

Sources: Table 7 and *Survey of Current Business*, U.S. Department of Commerce, 1995.

Note: In column 3, the first set of figures are U.S. exports of services to China. The second set of figures are U.S. imports of services from China.

As expected, the United States has been a net exporter of services to China, but the surplus is still relatively modest. Including the service account will only reduce the estimated deficit in 1994 by US\$0.7 billion. Taking re-exports, re-export margins, and services into account reduces the official U.S. deficits from US\$29.5 billion to US\$20.4 billion in 1994.

7. Trade Balance with Greater China

An alternative way to look at trade relations between the United States and China is to consider Hong Kong and China together as one entity. If Hong Kong and China are treated as one, then re-exports will only be internal trade among regions of the same country and will not pose the problems discussed earlier. There is also another advantage in looking at a combined China–Hong Kong entity—it takes into account “deficit-shifting.” Due to the massive movement of factories from Hong Kong to China, a large quantity of Chinese exports are exported from plants that are owned by Hong Kong firms. As exports from China by these firms increase, there is

a corresponding decrease of exports from Hong Kong and, hence, in U.S. trade deficits with Hong Kong; part of the deficits are shifted from Hong Kong to China. We find some evidence to support this view in Table 9. The U.S. trade balance with Hong Kong has been improving over time, turning a small U.S. deficit to a small U.S. surplus. At the same time, the U.S. trade deficit with China has been worsening.¹¹

The same deficit-shifting argument can be applied to Taiwan. Taiwan has been investing heavily in China in recent years. Some of the Chinese exports are from Taiwan-owned plants in China. Table 9 also looks at the U.S. trade balance with respect to Greater China—i.e., China, Hong Kong, and Taiwan combined. As can be seen in the last column of Table 9, the combined United States–Greater China deficits have been relatively more stable than the United States–China deficits alone.

Table 9
U.S. Trade Balance with Greater China (billion US\$)

Year	Official Estimate of U.S.-China Trade Balance (U.S. Data)	Official Estimate of U.S.-Hong Kong Trade Balance (U.S. Data)	Official Estimate of U.S.-Taiwan Trade Balance (U.S. Data)	Official Estimate of Total U.S. Trade Balance with China and Hong Kong (U.S. Data)	Official Estimate of Total U.S.-Greater China Trade Balance (U.S. Data)
1989	-6.2	-3.4	-13.0	-9.6	-22.6
1990	-10.4	-2.8	-11.2	-13.2	-24.4
1991	-12.7	-1.1	-9.8	-13.8	-23.6
1992	-18.3	-0.7	-9.3	-19.0	-28.3
1993	-22.8	+0.3	-8.9	-22.5	-31.4
1994	-29.5	+1.7	-9.6	-27.8	-37.4
1995	-33.8	+3.9	-9.7	-29.9	-39.6

Sources: *U.S. Foreign Trade Highlights*, U.S. Department of Commerce, various years; *Exports, Imports, and Balance of Goods by Selected Countries and Geographic Areas—1995*, U.S. Bureau of the Census, 1996.

Table 9 does not take into account trade in services. For the years that we have data, the U.S. balances in goods and services with Greater China are shown in Table 10; the overall United States–Greater China deficits are reduced by slightly less than US\$3 billion per year. They are also more stable than the United States–China deficits alone.

Table 10
U.S. Balance of Trade in Goods and Services with Greater China
(billion US\$)

Year	Official Estimate of U.S.-China Balance of Trade in Goods and Services (U.S. Data)	Official Estimate of U.S.-Hong Kong Balance of Trade in Goods and Services (U.S. Data)	Official Estimate of U.S.-Taiwan Balance of Trade in Goods and Services (U.S. Data)	Official Estimate of Total U.S. Balance of Trade in Goods and Services with China and Hong Kong (U.S. Data)	Official Estimate of Total U.S. Balance of Trade in Goods and Services with Greater China (U.S. Data)
1992	-17.8	-0.0	-8.1	-17.8	-25.9
1993	-22.2	+1.1	-7.7	-21.1	-28.8
1994	-28.8	+2.2	-8.1	-26.6	-34.7

Sources: *U.S. Foreign Trade Highlights*, U.S. Department of Commerce, various years; *Survey of Current Business*, U.S. Department of Commerce, 1995.

Our analysis lends some credence to the “deficit-shifting” hypothesis among China, Hong Kong, and Taiwan. The practical implication of the “deficit-shifting” hypothesis is that the effect of the increase in the United States–China trade deficit on U.S. unemployment, if any, is largely offset by the decrease in the trade deficits with Hong Kong and Taiwan.

8. Other Factors That Complicate Chinese Trade Data

In addition to re-exports, re-export markup, trade in services, and deficit-shifting, there are other factors that tend to make the Chinese trade statistics problematic. Since China refunds VAT (value-added tax) and some import duties on exports, there are instances of fraudulent reports of phantom exports. In other words, some quantity of Chinese exports that are recorded by Chinese Customs may in fact be nonexistent. They are booked as exports only for the purpose of collecting Chinese tax refunds. This type of fraud exaggerates the magnitude of Chinese exports to the

United States and overstates the Chinese trade surplus in the Chinese statistics.

On the other side, smuggling understates the extent of imports by China. It was reported that Chinese Customs seized a record of US\$0.41 billion in 1993 in smuggled goods. Cars and cigarettes are said to be the first and second most smuggled items into China. Most cigarette trade between the United States and China takes the form of exports from the United States to Hong Kong, where they are then smuggled into China. Such smuggling understates in China's trade statistics Chinese imports from the United States and elsewhere. Moreover, U.S. goods smuggled into China are also not captured in the re-exports data of Hong Kong.

Another complicating factor in examining Chinese trade data is that different Chinese government agencies report trade statistics differently. When the Ministry of Foreign Trade and Economic Cooperation (MOFTEC), formerly the Ministry of Foreign Economic Relations and Trade (MOFERT), reported on exports due to material processing, it included only the processing fees earned from such exports and excluded the value of raw materials imported for production. Typically the value of the processing fees is less than 10 percent of the value of the exports. In contrast, Chinese Customs data include the total value of the exports and imports.

Most countries' tax laws, including those of the United States, tend to encourage producers to under-invoice their exports to lower their revenue and hence profit. Reports indicate that, in the United States, exporters undervalue their exports by as much as 5 percent. On the import side, there are incentives to over-invoice or under-invoice. To reduce taxable profits, firms may want to exaggerate the costs of imports (a special case is that of transfer pricing between affiliated firms). However, if tariff rates are high, they may also have an incentive to under-invoice in order to lower import duties. In the case of China, the propensity to over- or under-invoice is likely to be even more pronounced.

There also are other complicating factors that are not unique to the problem of measuring the United States–China trade balance, but nonetheless can cause discrepancies. For example, the United States and China both encounter time lags in recording trade with their trading partners. This can explain some differences in official trade balances. Goods take time to be shipped from the exporting port to their destinations. Exports leaving China will be recorded as exports on the date they clear customs. But they take on average a month to arrive in the United States. During the shipping period, there are only Chinese exports recorded by Chinese Customs, but no corresponding Chinese imports recorded by U.S. Customs. This problem becomes more severe towards the end of the year, when both China and

the United States tend to order a large quantity of imports. Furthermore, as China's trade becomes more important to the United States, the volume of goods that need to be shipped also becomes larger.¹²

Another factor that affects the measurement of trade balances in general, including the United States–China trade balance, is the way exports and imports are measured. The U.S. measures exports on the FAS (free alongside ship) basis. This basically includes only the cost of the goods. China, on the other hand, measures exports on the FOB (free on board) basis. FOB includes the cost of the goods and the cost of loading the exports onto the vessels. For an equal value of exports, Chinese statistics record a slightly larger amount than does U.S. Customs, the difference being the cost of loading exports. On the import side, both countries measure according to the CIF (cost, insurance, and freight) basis. CIF includes the cost of the imports, as well as insurance, freight, and all costs associated with the sale and delivery of the goods. All the figures cited earlier, including those in the tables, are reported in this fashion—i.e., U.S. exports are given on the FAS basis, while imports are reported according to CIF. Chinese exports are given on the FOB basis, while Chinese imports are reported according to CIF.

In an absolute sense, any official trade balance measure (by either China or the United States) is overstated because it will include the cost of insurance and freight of the imports, which, as a rule of thumb, amounts to 10 percent of the value of imports. For identical values of exports and imports, we should also expect China to record a slightly smaller deficit because, unlike the U.S. data, the Chinese export data include the costs of loading exports onto the vessels.

9. Conclusion: Will the Real Trade Balance Please Stand Up?

As we discussed in previous sections, there are a number of complicating factors that distort the bilateral trade balance in both the official Chinese and U.S. data. Among the most important are re-exports, re-export markups, trade in services, and deficit-shifting due in part to foreign direct investment in China from Taiwan and Hong Kong.

Ultimately, which measure of the bilateral trade balance is the right one? As we pointed out in the introduction, from an economic standpoint, bilateral trade balances of any kind are not that meaningful. But whether we like it or not, policymakers do pay a great deal of attention to trade

statistics, so it is important to get at least the figures right. In this regard, the use of the official U.S. data still dominates the use of the official Chinese data. But the U.S. data should be adjusted, as we have done in this paper.

We feel that the balance of trade in goods and services, adjusted by both re-exports and re-export markups, is the most appropriate measure. For 1995, assuming that the balance of trade in services remains at US\$0.7 billion in favor of the United States as in 1994, the adjusted United States–China bilateral trade deficit may be estimated as US\$23.3 billion, still a large number but considerably smaller than the often-cited official trade deficit of US\$33.8 billion.

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Notes

¹ Lau (1990; forthcoming) and Fung (1996) contained discussions on development and trade issues related to Taiwan and China.

² For further observations of the overall relationship between the United States and China, see Atlantic Council (1993).

³ For a more detailed discussion of the Chinese economy, see Lau (1993).

⁴ Sung (1991) and Lardy (1994) contained discussions on the trade and economic relationship between China and Hong Kong.

⁵ See *1995 Economic Background*, Economic Analysis Division, Financial Services Branch, Government Secretariat, Government of Hong Kong.

⁶ Chinese export data are reported on the FOB (free on board) basis. See section 8 for further details.

⁷ However, since Chinese and Hong Kong exports are supposedly measured on the FOB basis, and U.S. imports are measured on the CIF (cost, insurance, and freight) basis, column 4 should be blown up by approximately 10 percent in order to be comparable to column 5, which will make column 4 significantly higher than column 5 for these years. Two plausible explanations are, first, that Chinese exports are under-invoiced and hence underreported in the U.S. Customs data; and, second, some Chinese exports may have entered the United States under the guise of another country's exports.

⁸ Chinese import data are reported on the CIF basis. See section 8 for further discussions.

⁹ U.S. exports are measured on the FAS basis, while U.S. imports are measured on the CIF basis. See section 8 for further discussions.

¹⁰ There are some indications that the re-export margins for non-Chinese goods via Hong Kong to China may have dropped substantially in the last few years—scattered evidence suggests that the markup on U.S. goods has declined to somewhere between 5 and 6 percent—while the average markup for Chinese exports has remained at 25 percent. A lower re-export markup for U.S. exports implies that the adjusted U.S. deficits with China, taking both re-exports and re-export markups into account, will be slightly smaller than those reported in column 5 of Table 7, because adjusted U.S. exports to China will be higher with a lower re-export margin.

¹¹ Trade balances between the United States and Greater China were also reported in the 1994 and 1995 *Economic Report of the President*.

¹² Sung (1991) and West (1995) also discuss the issue of time lags and different measurements of exports and imports.

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