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An Evaluation of the Intermediation Role of Hong Kong in Chinese Foreign Trade

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Abstract

Two different data sources can be used to study Hong Kong's role in intermediating China's foreign trade. One is the bilateral trade statistics between Hong Kong and the Chinese Mainland reported by National Bureau of Statistics of China, and the other is the bilateral trade statistics published by Census and Statistics Department, Hong Kong. The corresponding statistics are not comparable to each other because of the different statistical criteria adopted by each source. Hong Kong's intermediation role has been declining since the mid-1990s. A major long-run factor contributing to the decline is the structural change in Hong Kong's industry led by Hong Kong direct investment in China. The Chinese currency appreciation will have a further negative effect on Hong Kong's intermediation role. Hong Kong's off-shore trade has increased rapidly in recent years, but its impact is not strong enough to offset the declining share of Hong Kong in Chinese foreign trade.

JEL classification: F14, F19, N75

Keywords: Bilateral trade statistics, Intermediation role, China and Hong Kong

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1. Introduction

Hong Kong is well-known for its important role between the Chinese Mainland (hereafter China) and the rest of the world. However, Hong Kong's intermediation role has been declining recently as reflected by the trade statistics.

According to Direction of Trade (DOT) statistics published by the International Monetary Fund (IMF) in 1980, China's exports totaled US\$18.14 billion, with US\$4.35 billion exported to Hong Kong, or 24% of the total; in the same year, China's imports totaled US\$19.51 billion, with US\$0.57 billion imported from Hong Kong, or 2.9% of the total. In 1990, China's exports totaled US\$62.76 billion, with US\$27.16 billion exported to Hong Kong, or 43.3% of the total; China's imports totaled US\$53.81 billion in the same year, with US\$14.51 billion imported from Hong Kong, or 27.1% of the total. Up to 2005, China's total exports reached US\$762.34 billion, with US\$124.51 billion recorded exports to Hong Kong, or 16.3% of the total; China's total imports grew to US\$660.22 billion in the same year, with US\$12.23 billion imported from Hong Kong, or 1.9% of the total (see Figure 1).

Why has the percentage share of Hong Kong in China's foreign trade experienced such a big change? Does it really mean Hong Kong's intermediation role is weakening? What are the possible reasons behind the phenomenon?

Su (2006) points out that Hong Kong's declining role in China's foreign trade relates to the changing patterns of Hong Kong's foreign trade, and specifically to the substantial growth in Hong Kong's off-shore trade during recent years. Based on the empirical study, Liu, Fan and Shek (2006) argue that the bilateral trade between Hong Kong and China has been affected significantly by the real effective exchange rate between Hong Kong and China, and the processing trade activities have been particularly sensitive to the rate. In 1990s, a large number of Hong Kong entrepreneurs set up businesses in China to take advantage of the much cheaper labor costs and many other favorable opportunities, which led to a big change in Hong Kong's industrial structure. The change might have affected the intermediation role of Hong Kong in China's foreign trade. Finally and more importantly, a possible change in statistical criteria may have affected the usefulness of the data.

The rest of the paper is organized as follows. Section 2 reviews the statistical criteria adopted in China's foreign trade statistics. Section 3 considers the paradox among Hong Kong's trade statistics. Section 4 analyzes the impact of off-shore trade. Section 5 discusses the contribution of Hong Kong's changing industrial structure. Section 6 examines the influence of Chinese currency appreciation. Section 7 concludes.

2. The Statistical Criteria in Chinese Foreign Trade Statistics

The trade between Hong Kong and China has always been recorded as part of Chinese foreign trade by the National Bureau of Statistics of China (NBSC), in spite of the 1997 unification.

According to the website of China Customs, in 1980-1993, the Customs reports the country specific trade statistics following the criterion of 'country of trading', which means the country that China imports from and exports to. Since 1994, the criterion has been changed to 'country of origin/destination'. Therefore, China's import statistics for the pre-1993 period are based on the 'trading' criterion, under which Hong Kong's re-exports to China are classified as imports from Hong Kong. However, China's import statistics for the post-1993 period are based on the 'country of origin' criterion, under which Hong Kong's re-exports to China are classified as other countries' exports to China. China's imports from Hong Kong refer only to Hong Kong direct exports to China after 1993. The change of criteria affects export statistics similarly. China's export statistics for the pre-1993 period are recorded by the trading criterion, under which Hong Kong's re-exports originating from China are classified as China exports to Hong Kong; China's exports statistics for the post-1993 period are collected by the 'country of destination' criterion, under which Hong Kong's re-exports originating from China are classified as exports to other countries. China exports to Hong Kong only refer to Hong Kong retained imports from China after 1993. However, those Hong Kong re-exports to the other countries would be classified as China exports to Hong Kong, if they cannot, due to technical difficulties, be classified as re-exports when they go through the Chinese Customs.¹ Figure 1 plots the time series of these trade data. But because of the criterion change, these data cannot be used in evaluating Hong Kong's intermediation role in China's foreign trade.

In order to bypass the criterion change, we turn to the trade statistics provided by the Census and Statistics Department (CSD) of Hong Kong instead. But, before going on to the detailed calculation, we need to understand the different criteria between the two data sources.

There are two different criteria in trade statistics. One is the Cost, Insurance and Freight (CIF) basis, the other is the Free-On-Board (FOB) basis. In practice, CIF is commonly used for import statistics and FOB for export statistics. When comparing bilateral trade data, one needs to bear in mind the statistical discrepancies coming from the two statistical criteria. According to DOT and International Financial Statistics (IFS), both published by the IMF, China's imports reported in FOB are about 4.4% smaller than that reported in CIF during the period 1996-2005, and Hong Kong's imports reported in FOB are about 0.9% smaller than that reported in CIF. On balance, the statistical discrepancies caused by CIF and FOB criteria should be less than 5%.

According to the website of CSD,² Hong Kong's import statistics consists of three parts, imported goods for domestic use, imported goods for subsequent re-export, and Hong Kong products re-imported. Imports are recorded on the CIF basis. Hong Kong's export statistics consists of two parts, domestic exports and re-exports. The former includes the natural produce of Hong Kong or the products of a manufacturing process in Hong Kong which has changed permanently the shape, nature or utility of the basic materials used in manufacture. Both parts are recorded on the FOB basis. Because the trade statistics published in DOT are the same as those released on the website of CSD, to avoid converting data from HK\$ to US\$, we use data from DOT, whenever possible, in the following analysis. Figure 2

¹ This follows the international convention of 'country of last known destination' on trade statistics.

² http://www.censtatd.gov.hk/hong_kong_statistics/

presents the percentage shares of Hong Kong in Chinese foreign trade, calculated from data reported by both Hong Kong and China. Figure 2 shows that the sharp decline of Hong Kong's share in Chinese foreign trade in the early 1990s, evident from Figure 1, is absent in the Hong Kong-based statistics.

It is discernible from the Hong Kong-based statistics that Hong Kong's percentage share in China's imports began to decline around 1993 and that the growing trend of the percentage share of Hong Kong in China's exports started to reverse around 1997. Up to 2005, the share of Hong Kong both in China's imports and exports were well below 20%. It is surprising that the bilateral trade statistics from both data sources are moving closer to each other, as there is no evidence of statistical criteria changes made by both sides after 1993. In 2005, China's reported exports to Hong Kong were very close to Hong Kong's reported imports from China, and the difference between China's reported imports from Hong Kong and Hong Kong's reported exports to China has reached its lowest level since 1997.

3. The Paradox among Hong Kong's Trade Statistics

Figure 3 plots three data series: China's exports to Hong Kong reported by China; Hong Kong's imports from China reported by Hong Kong; and Hong Kong's re-exports originating from China reported by Hong Kong. One can easily see from the figure that China's exports to Hong Kong is the smallest, and Hong Kong's re-exports originating from China is the largest. But even excluding the re-export margin,³ the Hong Kong's imports from China reported by Hong Kong is still smaller than Hong Kong's re-exports originating from China. Is it because of the incompatibility of the Hong Kong import statistics with the official statistical criteria? Or in other words, do Hong Kong imports only refer to Hong Kong retained imports? When we add up Hong Kong's imports and Hong Kong's re-exports originating from China,⁴ the new series is already greater than China's total exports in the years before 1997! So what was the problem?

Based on data from DOT, China's total exports are much smaller than the sum of the rest of the world's imports from China. The difference has become larger and larger since the late 1980s. The relative difference was well above 50% in the 1990s. It peaked at 75% in 1993. The difference has dwindled recently. It reached 31% in 2005. It is quite clear that there is serious double counting in the world imports from China.⁵ Analysis of Hong Kong's re-exports originating from China would be helpful in understanding the problem.

Figure 4 presents Hong Kong's export to China and China's import from Hong Kong as percentages of China's total import. It is found that China's import from Hong Kong is quite close to the Hong Kong's export to China after 1993, reflecting the fact that China has classified Hong Kong re-export to China as import from the rest of the world. However, China's import from Hong Kong for the pre-1990 period was

³ According to Su (2006), cited from CSD, the average margin is 18.1% in 2002-2004.

⁴ Data for re-exports originating from China are only published for 1992 and later years by CSD.

⁵ In the mean time, world imports from Hong Kong are much smaller than Hong Kong exports to the world, albeit according to the country notes in DOT CD-ROM, most countries follow the United Nations' recommendation to record their trade data, i.e., adopting the criteria of 'country of origin/destination'.

close to Hong Kong re-export to China reported by Hong Kong. Considering that export is FOB basis and import is CIF basis, China's import from Hong Kong should be greater than the sum of Hong Kong's export and re-export to China. Further analysis on Hong Kong's trade data is therefore needed.

Dodsworth and Mihaljek (1997, p10) provide structural trade data of Hong Kong. Re-export takes 93% in total Hong Kong import, only 7% of Hong Kong total import belongs to retained import. Re-export shares 86% in total Hong Kong export, only 14% of Hong Kong total export is made up of domestic goods. Although there is no time reference in the paper, it gives support to the view that import data from China include re-export originated from China in Hong Kong trade statistics.

Liu, Fan and Shek (2006) give a very helpful chart of trade flows in 2005 among Hong Kong, China and the rest of the world. From this chart, we can deduce that the re-export margin of Hong Kong is 21.4% $((16+7+3+1)/(53+19+41+13))$ on average, which is quite close to the data cited by Su (2006). The chart also shows that the margin for re-export originated from China to the rest of the world is 30.2% $(16/53)$, that the margin for re-export originated from China to China is 36.8%⁶ $(7/19)$, and that the margin for re-export originated from the rest of the world to China is 7.3% $(3/41)$ and the margin for re-export originated from the rest of the world to the rest of the world is 7.7% $(1/13)$. Also from the same chart we find that the share of re-export in Hong Kong's import from China is 96% $((53+19)/75)$, and the share of re-export in Hong Kong's export to China is 95.9% $(70/73)$. Since the margin of Hong Kong re-export originated from China is well above 30%, the above mentioned conflict between Hong Kong's import from China and re-export originated from China does not exist. This is because a 30% discount on re-export originated from China will make the data less than the corresponding import of Hong Kong from China. But, since re-export margin obtained by Hong Kong is also classified as part of China export by the rest of the world, the differences of bilateral trade statistics between China and many countries are getting much bigger.⁷

4. The Impact of Offshore Trade

The definition of off-shore trade given by CSD on its website is: "Offshore trade covers the services of both merchanting and merchandising for offshore transactions provided by Hong Kong entities. Earnings from offshore trade include the gross margin from merchanting and commission from merchandising for offshore transactions."⁸

⁶ Hanson and Feenstra (2001) estimates the re-export margin is 28%-34% for Hong Kong re-export originated from China, based on FOB statistics.

⁷ For example, if China direct export to country A is T1 and China export to country A via Hong Kong is T2, country A would report import from China $T1+T2*(1+30\%)$, which is much larger than T1.

⁸ Merchanting is defined as services associated with the trading of goods purchased from and sold to parties outside Hong Kong without the goods ever entering and leaving Hong Kong. The Hong Kong entity engaged in merchanting takes ownership of the goods involved. Merchandising for offshore transactions is defined as the service of arranging on behalf of buyers/sellers outside Hong Kong the purchases/sales of goods according to their specifications. The goods involved are sold by a party outside Hong Kong to another party outside Hong Kong under the arrangement of a Hong Kong entity without the goods ever entering and leaving Hong Kong. (see the website of CSD)

Figure 5 gives the time series of Hong Kong's trade in services and offshore trade. It is shown that Hong Kong's trade in services increased substantially in the 1990s. Hong Kong's export of trade in services in 2005 was 3.4 times greater than those in 1990, and Hong Kong's import of trade in services in 2005 was 2.5 times greater than those in 1990. It is more important to notice that the growth rate of offshore trade is much bigger than service trade in total. Export of offshore trade only took 19% of the export of service trade in 1990, but the percentage share reached 34% in 2005. It suggests that the declining share of Hong Kong in China's foreign trade might be related to the growth of offshore trade.

Offshore trade is recorded under trade in services and the offshore trade related merchandise trade has been recorded separately as imports and exports of the corresponding countries; no time series related to the total trade intermediated by Hong Kong's offshore trade has been found on the website of CSD. However, in the Press Releases on Statistics published by CSD, there is an estimation of the total trade intermediated by Hong Kong's offshore trade in 2004, which was HK\$1835.8 billion. The trade margin was 8.6% and the commission rate of merchandising of offshore transactions was 6.8% in 2004, given in the same Press Releases on Statistics. Suppose that the average of the two margins can be used in estimating total trade intermediated by offshore trade and that the shares of offshore trade in service trade are the same in bilateral service trade, then the estimation of China's total foreign trade intermediated by Hong Kong's offshore trade would be HK\$663.9 billion in 2004 and HK\$129.2 billion in 1995. Compared with Hong Kong's total re-exports both to and originating from China, the offshore intermediated Chinese foreign trade would be 13% of the re-exports in 1995 and 33% in 2004 (see Figure 6). Therefore, the development of offshore trade does have a negative effect on the growth of re-exports.

By adding the estimated total trade intermediated by Hong Kong's offshore trade to Hong Kong's re-exports, it is found that the share in China's foreign trade would have declined from 56% in 1998 to 30% in 2005. Evidently, the development of offshore trade is not enough to offset the decline in re-exports.⁹ Besides, offshore trade contributes less to the Hong Kong economy than re-exports, and the movement from re-exports to offshore trade will definitely have a negative effect on employment in Hong Kong.

5. The Contribution of Structural Change

Along with China's opening up to the world, the much cheaper labor costs and favorable opportunities provided by the Chinese government have attracted a large amount of Hong Kong direct investment in China. The investment grew year by year during the 1990s. According to NBSC, Hong Kong direct investment in China was only US\$2.4 billion¹⁰ in 1990; it went up to US\$20.9 billion in 1996, the highest on record; it remained at US\$17.9 billion in 2005 in spite of a small downward trend. The accumulated investment was US\$248.5 billion in the period 1990-2005, or 40% of the total FDI inflow in the same period.

⁹ Su (2006) argues "at least, at present, Hong Kong's intermediation role has not changed yet, the changes only occurred on the distribution between re-export and offshore trade."

¹⁰ It is calculated based on the data in Tang and Au (1996).

Hong Kong's industrial structure has undergone a considerable change following the rising production capacity inland under the ownership of Hong Kong's entrepreneurs. According to the statistics published in World Economic Development,¹¹ in 1990 value added of the industrial sector made up 26% of GDP in Hong Kong, of which the share of the manufacturing sub-sector was 18%. The two shares declined to 17% and 9% in 1995 and went down further to 14% and 6% respectively in 2000. In the mean time, the share of valued added of the service sector grew from 73% in 1990 to 86% in 2002.

However, statistics show that the manufacturing transfer did not adversely affect the intermediation role of Hong Kong in Chinese foreign trade in the 1990s. Hong Kong's re-exports actually grew with the manufacturing transfer (see Figure 7). Hong Kong's re-exports were recorded to be only HK\$212.1 billion in 1990. They went up to HK\$384.0 billion in 1995 to HK\$488.8 billion in 2000, and further to HK\$967.9 billion in 2005, a figure about fourfold of the 1990s. In 1990, Hong Kong's re-exports originating from China were HK\$403.8 billion, HK\$849.5 billion in 2000, and HK\$1313.2 billion in 2005, which trebled the re-exports in 1990. Those data reflect that Hong Kong entrepreneurs in China still prefer to use Hong Kong as the intermediation port, at least to a substantial extent.

Figure 7 also tells us that, among the re-exports to China, processing trade related re-exports grew mildly, while processing trade related re-exports in re-exports originating from China experienced rapid growth before 1997 but declined thereafter. These phenomena indicate that either Hong Kong entrepreneurs in China must have been moving their imports and exports to inland ports, or they have been moving their business out of processing trade. This is quite consistent with the offshore trade development.

Of course, by comparing the data in Figure 4, we may conclude that the declining share of Hong Kong's re-exports in Chinese foreign trade might be somewhat related to the manufacturing transfer.

6. The Influence of Chinese Currency Appreciation

In 1980s, the Chinese currency (Ren Min Bi, RMB) depreciated against the Hong Kong dollar. Both the share of imports from Hong Kong in terms of China's total imports or the share of exports to Hong Kong in terms of China's total exports grew with the depreciation. In 1994, China adopted the managed floating exchange rate regime, but it has become a de facto fixed exchange rate pegged on the US dollar since the Asia financial crisis. The regime changed to a basket referenced peg in 2005. Considering that Hong Kong has adopted the linked exchange rate system since 1983, the bilateral exchange rate between the Chinese RMB and the Hong Kong dollar was relatively stable¹² in the past ten years. Nevertheless, because there were price differences, there were fluctuations in the real bilateral exchange rate. Moreover, taking into account the important role of Hong Kong's re-exports in Chinese foreign trade, the exchange rate fluctuations of the RMB and the Hong Kong dollar with respect to their main trade partners would also have an important impact on the bilateral trade between Hong Kong and China.

¹¹ World Bank's annual publication.

¹² Based on the quarterly data from the first quarter of 1994 to the second quarter of 2005, the average exchange rate of RMB/HK\$ is 1.0714, with a standard deviation of 0.015562.

Liu, Fan and Shek (2006) show empirically that RMB appreciation will have a negative effect on Hong Kong's re-exports originating from China and a positive effect on Hong Kong's re-exports to China, but that RMB appreciation will have a negative effect on Hong Kong's re-exports on the whole. Therefore, in the process of RMB appreciation now and in the foreseeable future, Hong Kong's share in China's foreign trade is expected to shrink further.

7. Conclusion

Data from different sources show from different angles a gradually declining trend of Hong Kong's share in Chinese foreign trade. With the expected appreciation of the RMB, Hong Kong's share in Chinese foreign trade will decrease further.

Because the statistical criteria changed in 1993, the current NBSC published statistics for China's imports from Hong Kong only refers to Hong Kong's domestic exports to China, while China's exports to Hong Kong partly include re-exports of Hong Kong to the rest of the world. Hence, the NBSC published bilateral trade data between Hong Kong and China cannot be used in evaluating Hong Kong's intermediation role in Chinese foreign trade.

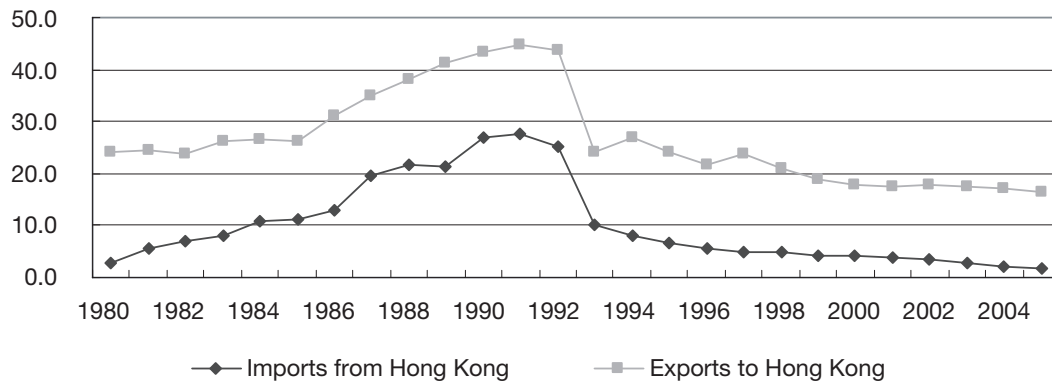
Hong Kong's re-exports originating from China are calculated from the exports of Hong Kong, so that the re-export margin is included. As the margin of Hong Kong re-exports originating from China is well above 30%, one needs to be cautious when citing the data on Hong Kong re-exports originating from China. These margins might be the most important sources of bilateral trade discrepancies between China and many countries.

Hong Kong's offshore trade has grown rapidly, but the total Chinese trade intermediated by Hong Kong is still very limited. Offshore trade has not yet been strong enough to offset the declining share of Hong Kong in Chinese foreign trade. Manufacturing shift from Hong Kong to China, the development in port construction in China, and the direct trade between China and the rest of the world will further decrease Hong Kong's intermediation role.

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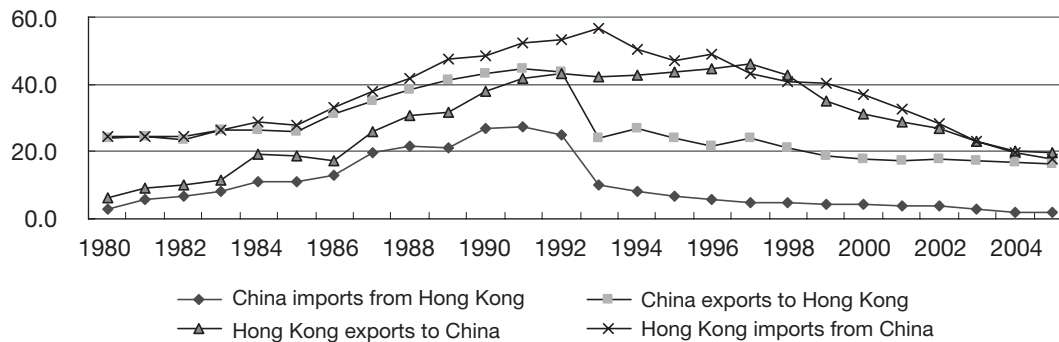
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Figure 1. The Percentage Shares of China Exports to (Imports from) Hong Kong in Total China Exports (Imports)



Source: China table, DOT, IMF data disk, Oct. 2006.

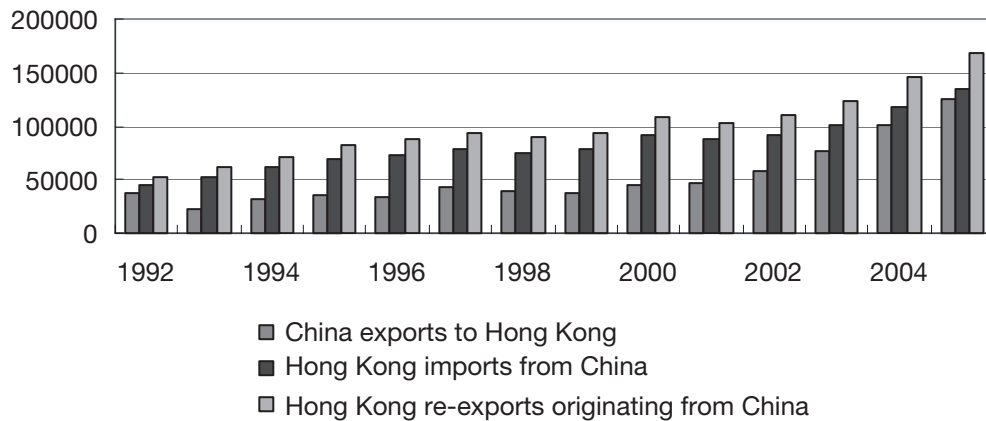
Figure 2. The Percentage Shares of China Exports to (Imports from) Hong Kong and Hong Kong Imports from (Exports to) China in Total China Exports (Imports)



- Note: 1. Share of China imports from Hong Kong = imports from Hong Kong reported by NBSC/total imports of China reported by NBSC*100
2. Share of China exports to Hong Kong = exports to Hong Kong reported by NBSC/total exports of China reported by NBSC*100
3. Share of Hong Kong exports to China = Hong Kong exports to China reported by CSD/total imports of China reported by NBSC*100
4. Share of Hong Kong imports from China = Hong Kong imports from China reported by CSD/total exports of China reported by NBSC*100

Source: China and Hong Kong table, DOT, IMF data disk, Oct. 2006.

Figure 3. Three Types of China Exports to Hong Kong (US\$ million)

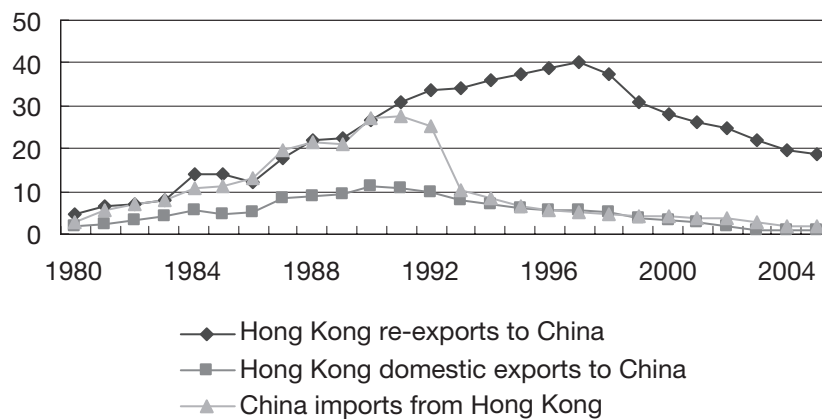


Note: 1. China exports to Hong Kong reported by NBSC.

2. Hong Kong imports from China and Hong Kong re-exports originating from China reported by CSD and converted to US\$ billion by the author.

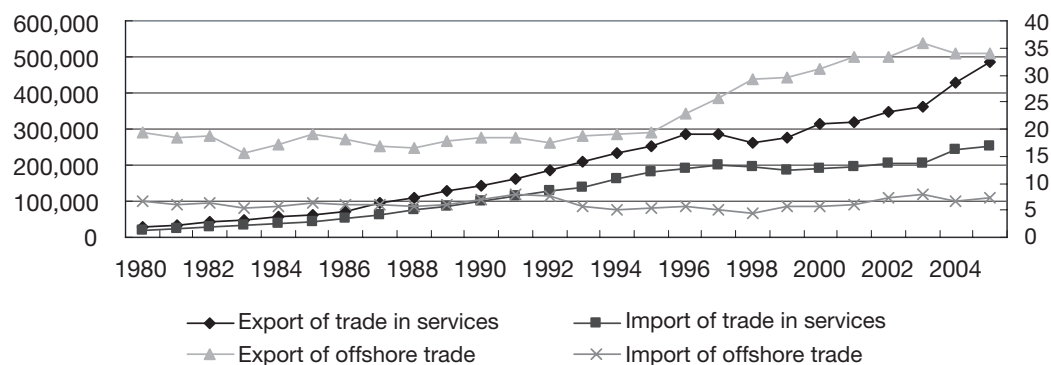
Source: China table in DOT, Hong Kong table in IFS, IMF data disk, Oct. 2006; CSD website.

Figure 4. Percentage Share of Classified Hong Kong Exports to China in China's Total Imports



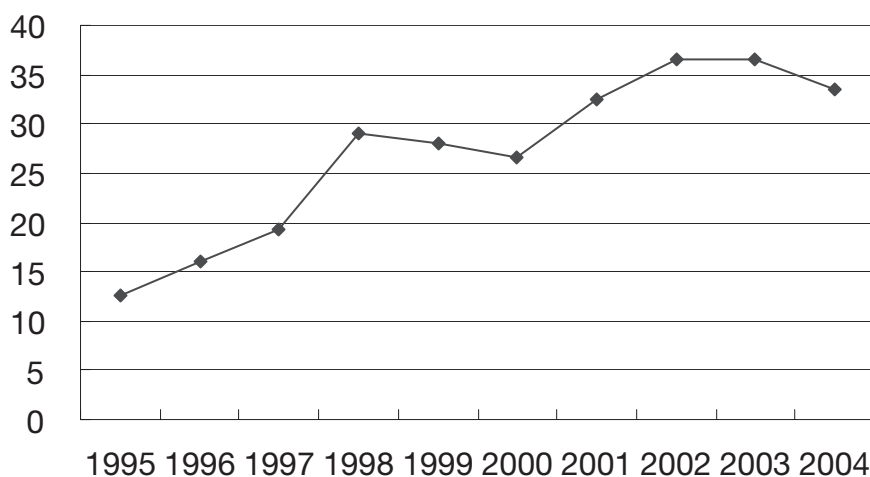
Source: China table in DOT, Hong Kong table in IFS, IMF data disk, Oct. 2006; CSD website.

Figure 5. Hong Kong's Trade in Services (Left HK\$ million) and Share of Offshore Trade (Right, %)



Source: Calculated based on data from CSD website.

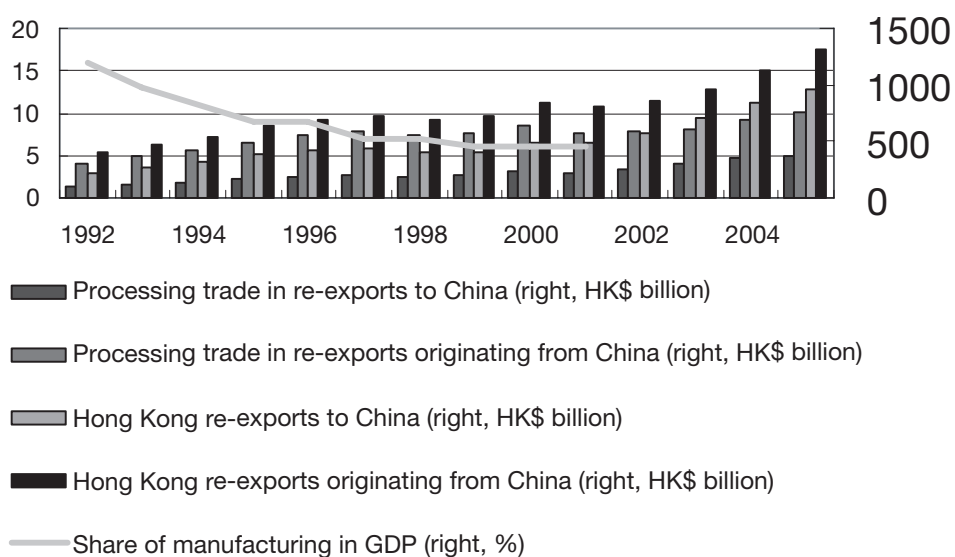
Figure 6. Hong Kong Offshore Trade Intermediated Chinese Foreign Trade as a Percentage of Re-exports of Hong Kong in Chinese Foreign Trade



Note: Because the re-export margin of Hong Kong in intermediating Chinese foreign trade is much larger than the margin of Hong Kong in intermediating the trade of the rest of the world, the margin earnings by Hong Kong in offshore trade with Chinese foreign trade might be much bigger than Hong Kong's margin earnings in offshore trade with the trade of the rest of the world. So that, 6% of the margin earning used here in estimating the offshore trade intermediated Chinese foreign trade will over-estimate the intermediated Chinese foreign trade.

Source: Author estimates.

Figure 7. Hong Kong's Share of Manufacturing in GDP and Re-exports Related to Chinese Foreign Trade



Source: World Development Report; CSD website.