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Trade and Investment among China, the United States, and the Asia-Pacific Economies: An Invited Testimony to the U.S. Congressional Commission

By K.C. Fung

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Abstract

In this paper I discuss *six* special features of China's trade and direct investment. These characteristics include an extensive role played by foreign-invested firms, a large percentage of re-exports and processed exports, a geographical concentration of trade and investment, a growing importance of high-technology trade and wholly foreign-owned enterprises being the dominant mode of investment.

As a developing economy, China is unusual in playing *two* important roles for the United States and for Asia-Pacific economies in general. It is a competitive, low-cost export platform. At the same time, it is a large and growing market. Japanese and U.S. affiliates located in China typically sell about half or more of their products produced in China in the domestic Chinese market.

U.S. government data show that U.S. affiliates in China are becoming more and more profitable. China has also become an important link in the global supply chain. There is a thick and growing production network among China and other East and Southeast Asian economies. Because of such a network, foreign direct investment flows to China tend to be positively related to foreign direct investment flows to other Asian economies.

1. Characteristics of China's Trade and Foreign Direct Investment

China's trade and direct investment have some interesting characteristics. In this introductory section, I will first describe some of these stylized features. In particular, I would like to highlight *six* aspects.

First, a substantial amount of China's trade is conducted by foreign-invested enterprises. In 2003, foreign firms conducted 56.2% of China's imports and 54.8% of China's exports. To a very large extent, China's trade is quite heavily dependent on enterprises from other economies (Naughton, 1996, Fung 1998). Because of the involvement of foreign-invested enterprises in China's exports, this implies that foreign firms, including U.S. firms do directly benefit from the explosive growth of China's trade with the rest of the world. In 2002, the rate of return for U.S. multinationals in computer and electronic products can be estimated to be 21.2%.

Second, a large amount of China's trade is first shipped to Hong Kong and then re-exported (Feenstra and Hanson 2004, Fung 1998). In 2003, 28.3% of Chinese exports to the world was re-exported via Hong Kong, while 21.9% of Chinese imports from the world was first sent to Hong Kong before re-exported into China. The large extent of re-exports is quite unique to China's trade. One business implication of the importance of re-exports in China's trade is that in evaluating the export market potential of China, one will need to take re-exports into account. A policy and a research implication is that the bilateral trade data of most countries with China need to be adjusted, including those of the United States, Japan, the European Union and Canada (Feenstra, Hai, Woo and Yao 1999). Using adjusted official U.S. data, the adjusted estimate of United States-China bilateral trade balance for 2002 is \$76.6 billions (Fung and Lau 2003).

Third, China's trade and foreign direct investments are geographically concentrated. In 2003, Guangdong's imports accounted for 31.7% of China's total imports, while Guangdong's exports accounted for 34.9% of China's total exports. Most of China's foreign direct investments still flow to the east and coastal areas. In 2002, the east and southeast coastal areas (Shanghai, Jiangsu, Zhejiang, Fujian, Shandong, Guangdong, Hainan, Beijing, Tianjin, Hebei, Liaoning and Guangxi) received 89.5% of all realized foreign direct investments.

Fourth a large percentage of China's trade is related to processing and assembly. In 2003, 55.2% of China's exports are processed exports, while 39.5% of China's imports are processed imports. Typically processed exports have lower domestic value-added than non-processed exports. On average, the domestic value-added of Chinese exports is still relatively modest. In 1995, \$1 worth of aggregate Chinese export to the United States induces a direct domestic value-added of \$0.19 (Chen, Cheng, Fung and Lau 2001).

Fifth, according to China's Custom Statistics, in 2003, China exported \$110.3 billion (25.2% of China's total exports) of high-technology products. It also imported \$119.3 billion (28.9% of total imports) of high-technology goods. However, it is not entirely clear how these figures are calculated from the various classifications in the trade data. At any event, two-way trade of high-technology goods seems to be substantial. This partly reflects the fact that in certain industries, China is now a part of the global supply chain network and thus it engage in both importing and exporting of various components and parts (Roach 2003).

Sixth, most recent foreign direct investments in China are not joint ventures. Instead, they take the form of wholly foreign-owned enterprises. In 2002, 69.2% of contracted foreign direct investments were wholly foreign-owned. In 2002, excluding the Virgin Islands, the United States is the second largest direct investor in China. There is no particular reason to expect that U.S. investments in China to have different modes of ownership that differ significantly from the general pattern. This implies that U.S. multinationals will increasingly have greater controls of their operations in China.

2. Economic Roles of China in the Asia-Pacific Region

China plays several important economic roles for its neighbors and to foreign and U.S. multinationals. Typically developing economies attract U.S. and other multinationals because of their low wages. Industrialized economies such as the United States and the European Union, on the other hand, attract foreign direct investment because of their large market sizes. For the case of China, these *twin* aspects --a large and growing market and a low-cost but high-quality labor force-- come together. Thus U.S. and Asian

firms are attracted to China because of its dynamic, large and rapidly growing economy as well as its cheap labor.

2.1. China as a large and growing market

Existing economic studies support the view that the domestic market of China is an important determinant of foreign direct investment in China (Fung, Iizaka and Parker 2002, Fung, Iizaka, Lin and Siu 2002).

Furthermore, multinationals of different countries place somewhat different degrees of emphasis on the importance of the domestic market of China.

U.S. and Japanese direct investments tend to be more responsive to a larger market in China than firms are from Hong Kong and Taiwan (Table 1). For example, a one-percent increase in the provincial gross domestic product (GDP) will induce an increase of 0.76% of U.S. direct investment, but only 0.40% of Hong Kong investment.

Several surveys also show that multinationals sell significant shares of their products produced in China in the local Chinese market. According to the Ministry of Economy, Trade and Industry (METI) of the Japanese government, in 2001, Japanese affiliates in China and Hong Kong sold 47.2% of the products locally (Table 2). According to a survey done by Chung Hua Institution of Economic Research in Taiwan, U.S. multinationals sold more than 80% of their products produced in China locally (Fung, Lau and Lee 2004). Finally in the area of high-technology, according to reports from the American Electronics Association, China is now already the third largest information technology market in the world. China is also the third largest semiconductor market in the world, behind only the United States and Japan. It is often reported that China is not an easy place to do business, but it seems that the U.S. multinationals are increasingly benefiting from the booming domestic Chinese market. In general, the rate of return for U.S. direct investments in China in 2002 is estimated to be 14.1%.

2.2 China as a low-wage production site

Economic studies also show that China's low wage rates and its quality of labor are important determinants of foreign direct investments (Fung, Iizaka and Parker 2002, Fung, Iizaka, Lin and Siu 2002). Hong Kong firms are particularly lured by the lower Chinese wages. U.S. and Japanese direct

investments do respond to the wage rates in China, but their responses are less pronounced compared to Hong Kong and Taiwanese multinationals. In contrast, Japanese and U.S. companies place more emphasis on the quality of labor than other Asian multinationals (Table 1).

For example, a one-percent reduction in Chinese provincial wage rate will increase Taiwanese direct investment by 2.64% but will only increase U.S. direct investment by 1.79%. A one-percent improvement in the provincial Chinese quality of labor will raise Japanese direct investment by 1.29% but will only increase U.S. direct investment by 0.97%.

A survey by the Japanese government also shows that cost consideration is the number one motive for Japanese multinationals to locate in China (Table 3). The same survey shows that expanding market shares in China and Hong Kong is the second most important motive for investing in China. Thus from both econometric studies as well as survey data, China is seen by multinationals as both a low-cost production site as well as a place where they can sell their products through their affiliates.

3. The Effects of China on the U.S. and Its Asian-Pacific Neighbors

As a large and growing market, China increasingly plays the role of a locomotive in the Asia-Pacific region. This aspect of China is demand-enhancing and investment augmenting. To the U.S. multinationals, the Chinese market represents a profitable opportunity (Table 4). Unlike the Japanese growth experience, China's development strategy so far is one of relative inclusiveness. By welcoming foreign firms, it allows foreign companies to participate and to benefit from its rapid growth.

As a site for low-cost manufacturing, China represents an opportunity for U.S. multinationals to cut their costs of productions. By cutting their costs, U.S. firms obviously will increase their global profits. However, if U.S. and other foreign multinational corporations view China mainly as a low-wage export platform, then they may consider investing in China instead of in other locations. This may reduce direct investments in other countries and reduce their economic welfare.

Recent economic studies so far suggest that foreign direct investment in China is *complementary* to direct investments in other Asian-Pacific economies, including Hong Kong Taiwan, Singapore, Republic of Korea, Thailand, Malaysia, the Philippines and Indonesia (Table 5). On average, a one-percent increase in foreign direct investment into China will raise direct investment into China's neighboring economies by 0.55%, even though it will reduce the shares of investments of these economies as a proportion of total Asian and developing countries' direct investments by 0.23% and 0.19% respectively. Thus in terms of levels of foreign direct investment, the presence of China is investment-augmenting, even though China does seem to reduce the shares of foreign direct investment of its regional neighbors.

The fact that direct investment levels in China are complementary to direct investment levels in its neighbors is consistent with the view that China is not only viewed by foreign and U.S. multinationals as a low-wage export platform, but also as an important link in the global supply chain. In this business model, the value chain is sliced thinner and thinner and each stage of production is parceled out to a different specialized site to minimize global costs of production.

In the immediate geographic vicinity of China, this network of production-sharing is especially pronounced among the three members of the China Circle (China, Hong Kong and Taiwan) and in certain industries such as technology goods and components (Naughton 1997, Roach 2003). Being an important site for global production-sharing, China will both import and export goods that belong to the same industry such as electrical equipment (Table 6). In 2003, China imported and exported significant amount of items in the category of electrical equipment to its neighbors. Except for Indonesia, exports and imports of goods, components and parts in the electrical equipment industry rank either as first or second in the trade of these economies with China. The two-way trade of many goods, including those within electrical equipment also raises the issue of how much domestic value added China derives from such trade. Existing studies seem to suggest that the domestic value-added generated by such types of Chinese exports is not exceptionally high, particularly for processed exports (Table 7). In the case of processed exports of electric machinery and instrument, the total domestic value-added generated amounted to an estimated 14.4%, while for processed exports of the manufacture of electronic and communication equipment, the corresponding estimated total domestic value-added is

13.8%. In general, for processed and non-processed exports combined (aggregate exports), the domestic value-added generated tend to be higher.

4. Concluding Remarks

China's trade and foreign direct investment have some distinctive characteristics. Some of these characteristics have business and policy implications for the United States. By allowing foreign firms to substantially participate in its external sector, China is often seen to be more open than many economies at similar stages of economic development.

Unlike many developing and transition economies, China attracts many foreign multinationals because of both its large and booming domestic market as well as its cheap but high-quality labor. However, to many foreign firms in the high-technology sector, China is not only a cheap export platform, but it is also an important link in the global supply chain.

It is important to put the presence of U.S. firms in China in perspectives. In 2002, less than 1% of the stock of U.S. direct investment in the world was in China. In 2001, less than 4% of the employment of the non-bank majority-owned U.S. affiliates abroad was located in China. It will take a long time before China can come close to have the amount of U.S. direct investment and associated employment in countries like the United Kingdom or Canada.

In the 1960s and the 1970s, when several European countries embarked on the first stages of European economic integration, it was often feared that in some countries, whole industries or sectors would disappear. Later on this was proven to be inaccurate. A slice of an industry may move from Germany to Italy, but countries would specialize in niches of the same industry and trade with each other. For example, Italian sport cars are exported to Germany, while Germany luxury cars are exported to Italy. Most researchers now believe that due to such horizontal two-way trade, economic adjustments took place within industries and were not as large as first feared.

For the case of China, a similar situation may occur. The economic integration of China into the world market system will increase global efficiency, but it will also cause dislocations and in some situations, large dislocations. However, countries in the Asia-Pacific will adapt to specialize

in various stages of the global production process and expand their trade of differentiated components and parts with each other. For example, Korean liquid crystal displays may be exchanged with Chinese motherboards. The increased vertical two-way trade of intermediate goods between China and its neighbors will reduce their costs of economic adjustments. At the same time, China's rapidly growing market represents concrete benefits to China's Asian neighbors as well as to the United States.

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Appendix

Table 1: Determinants of Direct Investment in Different Provinces of China

	U.S. Direct Investment	Japanese Direct Investment	Hong Kong Direct Investment	Taiwanese Direct Investment
1% increase in Gross Domestic Product	Increase by 0.76%	Increase by 0.71%	Increase by 0.40%	Increase by 0.58%
1% increase in the Wage Rate	Decrease by 1.79%	Decrease by 1.57%	Decrease by 2.66%	Decrease by 2.64%
1% improvement in Labor Quality	Increase by 0.97%	Increase by 1.29%	Increase by 0.43%	Insignificant

Source: Fung, Iizaka and Parker (2002).

Table 2. Destinations of Sales of Japanese Affiliates in 2001 (%)

	Locally	Exported to Japan	The Third Country
China and Hong Kong	47.2	31.5	21.3
ASEAN4	38.8	28.1	33.0
NIE3	59.1	17.7	23.2
Asia	48.8	24.7	26.5
World	70.0	10.9	19.1

Source: Fung, Lau and Siu (2004), METI (2002)

NIE3 includes Taiwan, Singapore and Republic of Korea

ASEAN4 includes Thailand, Indonesia, Malaysia and the Philippines

Figures may not add to 100% due to rounding.

Table 3. Motives behind Japanese Direct Investment, 1999

Motive	China and Hong Kong	ASEAN4	NIE3	World
Reasons related to lower costs	40.1%	37.6%	31.0%	30.0%
To expand their market shares in the country	20.9%	19.4%	24.1%	24.3%
To re-export to Japan	8.9%	6.7%	5.7%	5.8%
For research and development	0.7%	0.1%	1.0%	1.8%

Source: Fung, Iizaka and Siu (2003), METI (2001)

NIE3 includes Taiwan, Singapore and Republic of Korea

ASEAN4 includes Thailand, Indonesia, Malaysia and the Philippines

The answers are percentage of firms that pick that reason as their motives.

To save space, other motives have been omitted.

Table 4. Characteristics of U.S. Multinationals in China

	Rate of Return in 2002	Share of U.S. Direct Investment Position in the World in 2002, by Industry	Share of U.S. Employment of Non-Bank Majority-Owned Affiliates in the World in 2001, by Industry
All Industries	14.1%	0.7%	3.3%
Manufacturing Industries	16.9%	1.6%	4.8%
Computer and Electronic Products	21.2%	2.8%	10.2%
Electrical Equipment, appliances and components	17.7%	6.0%	18.6%

Source: Survey of Current Business, September 2003, Mataloni, 2003. The rates of returns and the shares of U.S. direct investment position in the world are for 2002. U.S. direct investment positions are measured by historical costs. The shares of employment by U.S. non-bank majority-owned affiliates are for 2001.

Table 5. The Effects of Foreign Direct Investment in China on Other Asian-Pacific Economies

	Levels of Foreign Direct Investment in China's Neighbors	Foreign Direct Investment in China's Neighbors as Shares of Total Foreign Direct Investment in Asia	Foreign Direct Investment in China's Neighbors as Shares of Total Foreign Direct Investment in all Developing Countries
An increase of 1% of foreign direct investment from the world to China	Increase by 0.55%	Decrease by 0.23%	Decrease by 0.19%

Source: Busakorn Chantasawat, K.C. Fung, Hitomi Iizaka and Alan Siu (2003a, 2004).

The studies examine the effects of China's foreign direct investment on foreign direct investment inflows into Hong Kong, Taiwan, Republic of Korea, Singapore, Thailand, Malaysia, the Philippines and Indonesia.

Table 6. China's Two-Way Trade of Electric Equipment with its Neighbors, 2003

	Exports of Electrical Equipment to China (US\$1,000)	Rank in Exports to China	Imports of Electrical Equipment from China (US\$1,000)	Rank in Imports from China
Taiwan	17,075,435	1	2,470,679	1
Republic of Korea	13,224,831	1	4,122,382	1
Singapore	3,432,677	1	2,869,225	1
Thailand	1,984,551	2	888,914	2
Malaysia	7,179,539	1	1,587,136	2
Philippines	4,251,766	1	890,895	1
Indonesia	346,577	7	632,660	3

Source: China's Custom Statistics Monthly, 2003, December.

Table 7. Domestic Value Added Induced US1 of Chinese Exports, 1995, (US\$)

	Manufacture of Electric Machinery and Instrument	Manufacture of Electronic and Communication Equipment	Weighted Average of All Sectors
Direct Domestic Value-Added of Processed Exports	0.128	0.128	0.153
Total Domestic Value-Added of Processed Exports	0.144	0.138	0.176
Direct Domestic Value-Added of Aggregate Exports	0.148	0.155	0.240
Total Domestic Value-Added of Aggregate Exports	0.257	0.243	0.545

Source: Chen, Cheng, Fung and Lau (2001).

