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and the World Economy

Yuqing Xing

Graduate School of International Relations
International University of Japan



IUJ Research Institute
International University of Japan

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Yuqing Xing^{*}

Abstract: This paper provides a comprehensive review on foreign direct investment in China in the last three decades. It reviews the growth, the sources and the distribution of FDI in China and analyzes the major determinants of FDI into China. Moreover, the paper summarizes the major contributions of FDI to Chinese economy in terms of economic growth, total factor productivity, exports and technology progress. Finally, the paper discusses the potential impacts of FDI in China to the rest of the world: the countries competing for FDI with China and the ones as the source of FDI in China.

^{*} International Development Program, Graduate School of International Relations, International University of Japan, 777 Kokusai-cho, Minami Uonuma-shi, Niigata-ken, 949-7277, Japan. Fax: +81-25-779-1187; Email: xing@iuj.ac.jp.

1. Introduction

As the largest recipient of foreign direct investment (FDI) among all developing countries, China received a cumulative total of \$692 billion FDI from 1979 to 2007 (CSB, 2007). China has benefited tremendously from both tangible and intangible assets associated with FDI inflows. In fact, in the modern history of economic development, no other countries have ever benefited as much as China did, and continues to, from FDI. It is a consensus among academic scholars specializing in the Chinese economy that, in the last three decades, FDI has been one of the critical engines driving the Chinese economy to grow rapidly. In the literature on the growth of the post-reform Chinese economy, and policy discussions on the experiences of China's successful transition towards a market oriented economy, FDI has always been one of the focal points.

The influx of FDI greatly alleviated the severe shortage of capital at the early stage of China's economic reform, and substantially facilitated its capital formation process. Through the direct contributions to the capital formation and the growth of total factor productivity, FDI in China contributed directly to China's sustained high economic growth since the beginning of the economic transition in 1978. It is estimated that the

sector of foreign invested firms accounted for about 40 per cent of China's GDP; and without FDI, China's GDP growth would be 3.4 percentage points lower (Whally and Xin, 2006).

Moreover, foreign invested firms have performed an essential role in promoting China's exports. Switching from the inward-looking development policy to the export-led growth strategy represents one of the fundamental dimensions of China's economic reform. The strategy has been very successful. As a result, China's exports grew rapidly and reached \$981 billion in 2006. Decomposing Chinese exports by producers reveals that foreign invested firms are the major contributor of the drastic export expansion. They accounted for almost 60 per cent of China's total trade. Today made-in-China products are available at every corner of the world market and have been increasingly taking larger percentages of market share. However, most of these products are sold under brand names owned by foreign firms or distributed directly by large foreign retailers such as Wal-Mart and K-Mart. Few of them carry brand names owned by indigenous Chinese firms. It is the technology, product designs, brand names and distribution networks of MNEs that removed the hurdles for made-in-China products, allowed it to enter the world market, and strengthened the competitiveness of Chinese exports.

FDI also facilitated the structure change and enhanced the value-added of Chinese exports. For instance, 88 per cent of Chinese high-tech exports were produced by foreign invested firms in China (Chinese Ministry of Commerce, 2006). In 2005, China's intra-industry trade with Japan increased to 34 per cent of the total trade from less than a one per cent in 1980. Japanese affiliates contributed substantially to the rising intra-industry trade (Xing, 2007).

Moreover, the presence of foreign invested firms; either wholly foreign owned or joint-ventures, intensified the competition in the domestic market, thus improving the efficiency of the economy and propelling the reform of state-owned enterprises and China's transition to a market-oriented economy. Technology transfers and spillovers associated with inflows of FDI have substantially facilitated technology innovations and productivity growth of Chinese firms, thus improving the efficiency and competitiveness of Chinese industries (Chuang and Hsu, 2004).

While FDI has been promoting the growth and reshaping the structure of Chinese economy, it also affects the welfare of other countries, which are either competing with

China for limited FDI, or are the sources of FDI. Given the huge size of the Chinese economy and relative large scale of FDI in China, the potential impacts raise serious policy debates. For countries trying to attract FDI for instance, major concerns are raised over whether China's gains in FDI are at the expense of these countries and whether FDI flowing into China crowd out that of other countries (Tong and Eichengreen, 2006). For FDI source countries, particularly industrialized countries, the phenomenon of de-industrialization and industrial hollowing out is regarded as possible consequences of FDI flowing into China (Burke, 2000; Kim, 2007).

The scale of FDI in China is un-matched by any other country in their early stage of economic development. The experiences of China in absorbing and utilizing FDI are unique and unprecedented. This paper attempts to briefly review the experiences of China in attracting and utilizing FDI and the impacts on the rest of world.

2. Growth, Sources and Regional Distribution of FDI in China

2.1 Growth of FDI

Opening China up to foreign direct investment is an integral part of China's "open door" policy adopted at the beginning of the economic reform. In spite of the tight control on foreign portfolio investment, the Chinese government has actively promoted direct investment from abroad since the beginning of the economic reform. Facing

severe shortage of capital at the early stage of the economic reform and industries that were consisted of exclusively stated owned enterprises with outdated technology and limited production capacities, the Chinese government was determined to make use of FDI as a means of offsetting the capital deficiency, acquiring advanced technology and production know-how, and promoting exports.

To eliminate institutional hurdles to foreign investors and establish a legal environment for foreigners, the law on Chinese-Foreign joint ventures was promulgated as early as 1979. To give more choices and controls to foreign investors, in 1986 the Chinese government passed the law on wholly foreign owned enterprises, which officially permits foreign investors to set up and operate their companies independently. Being cautious and uncertain about the consequences of integrating the Chinese economy with the rest of the world, the Chinese government initially opened limited areas to foreign investors by establishing four special economic zones: Shantou, Shenzhen, Zhuhai and Xiamen in 1980. The special economic zones served as an experimental site. The success of the four economic zones in attracting FDI, promoting exports and regional economic growth led to the further opening of fourteen 14 cities in 1984, and eventually the whole China to foreign investors in the late 1990s.

Figure 1 illustrates the trend of annual FDI flowing into China from 1981 to 2007. During the time period, FDI in China experienced a drastic expansion. The growth, however, differed along the time horizon. In the 1980s, the scale of FDI inflows was relative small, due to limited regions and industries that were open to foreign investors, and because of the relative poor infrastructure and under-developed investment environment. In addition, since China had been isolated from the rest of the world for more than thirty years, foreign investors initially lacked confidence and were suspicious about investing in China. By 1990 annual FDI into China was only \$3.5 billion, about 1.7 per cent of global FDI and 10 per cent of FDI into developing countries (Figure 4).

<< Insert Figure 1: FDI growth >>

The first wave of FDI boom in China occurred after 1990. FDI jumped to \$11 billion in 1992, more than triple that of in 1990. It was the first time that annual FDI exceeded the \$10 billion mark. The rapid growth continued and reached the first peak in 1997 with US\$45.3 billion in direct investment. One reason for the surging FDI was Deng Xiaoping's tour to the southern provinces in 1992, which encouraged the local governments to open further to foreign investors and subsequently accelerated China's institutional reform towards the economic integration with the world economy (Fan et.al.

2007; Fung, Iizak and Tong, 2002; Wei and Liu, 2001). Another important factor is the cumulative devaluation of Chinese Yuan from 1989 to 1994. The wealth and production cost effects associated with the devaluation further enhanced China's competitiveness for FDI (Xing, 2006a).

Because of the Asian financial crisis, which dampened the economic growth of China's major FDI source countries such as Korea and Japan, FDI grew less than one per cent in 1998 and declined in the following years. By 2001, annual FDI inflows shrank to US\$40.7 billion. The growth momentum, however, resumed in 2002 and FDI rose to \$46.8 billion, 15.24 per cent higher than in 2001. By 2007, FDI in China reached another record high of \$74.8 billion (CSB, 2008). The rising FDI after 2001 was mainly driven by China's official entry to the WTO in November of 2001. Being a member of WTO, China has committed itself to further trade liberalization by abolishing quotas, slashing tariffs, removing red tapes and providing national treatment to foreign companies. The WTO accession has finally led to the opening of the banking, insurance, retailing and heavily protected automobile market to foreign investors; thus stimulating FDI inflows, in particular domestic market oriented FDI (Fung, Iizaka and Tong, 2002). For instance, to expand the production capacity for serving the Chinese market,

Japanese companies in the transportation equipment industry drastically increased their direct investment in China. The investment rose from 10.1 billion yen in 2000 to 176 billion Yen in 2004, making transportation equipment the number one sector in terms of direct investment from Japan (JMETI, 2006). An empirical analysis by Walmsley, Hertel and Ianchovichina (2006) suggests that the WTO membership did significantly boost FDI flow into China.

2.2 Sources of FDI

China's sustained high growth and the potential of being one of the largest markets have lured entrepreneurs and investors from the entire world. By 2006, there were 274,863 foreign invested firms with a total registered capital of \$946 billion (CSB, 2007). Decomposing FDI in China according to the sources (Table 1) indicates that Hong Kong has been the leading FDI source for China. From 1985 to 2006, cumulative FDI from Hong Kong amounted \$278.1 billion, about 40.5 per cent of the total FDI stock. Geographic proximity and the cultural linkage between the mainland China and Hong Kong are the major reasons for Hong Kong being the number one source of FDI (Cheng and Kwan, 2000; Gao, 2005). The geographic proximity and the culture link generally reduce the transaction costs and lower the asymmetric information barriers for investing

in China. The large scale of round tripping FDI between the mainland China and Hong Kong also attributed to the exceptionally high FDI from Hong Kong. Round tripping FDI refers to the investment which is originated in the mainland China, channeled into Hong Kong and then invested back to the mainland China. It is estimated that about half of FDI from Hong Kong actually belongs to round tripping FDI (Xiao, 2004; World Bank, 2002). The round tripping FDI intends to evade China's strict control on capital mobility and enjoy the tax benefits which were only available to foreign investors before China entered the WTO. As China gradually opened itself to the rest of world, the dominance of Hong Kong as the leading source of FDI decreased substantially. From 2000 to 2006, FDI from Hong Kong amounted \$109.5 billion, about 32 per cent of the total, much lower than its share before 1990.

<<insert table 1: sources of FDI>>

As the largest capital exporting country, Japan ranks second in terms of FDI stock in China. From 1985 to 2006, Japanese multinational enterprises cumulatively invested \$57.5 billion, which accounted for 8.4 per cent of the total FDI stock for that period. The US ranked third with \$55.1 billion cumulative FDI, about 7.9 percent of the total. There were very little FDI from Taiwan and Korea before 1990. However, Taiwan emerged as the third largest investor during the period of 1991 to 2000 with \$25.8

billion, about 7.9 percent of the total FDI stock. From 2001 to 2006, Korea emerged as the third largest FDI source with total \$24.7 billion investment, more than doubled the investment made by Korean companies from 1991 to 2000.

The scale of direct investment from European countries is relatively small compared with that of Japan and the US. In spite of the fact that Germany is the third largest economy, from 1985 to 2006, its FDI stock in China amounted to only \$13.9 billion, about 2.0 per cent of the total; even less than 50 percent of the FDI from Singapore. FDI from the UK maintained roughly the same level as that of Germany. FDI from France is even smaller, about \$7.5 billion, just above one per cent of the total FDI in China. The far distance between European countries and China might attribute to the relative small size of the direct investment from European countries.

2.3 The Regional Distribution of FDI

While China has become one of the prime destinations for FDI, the distribution of FDI within China has been extremely biased towards the coastal areas. Even though there are many factors determining the regional distribution, such as initial level of economic development, the quality of human resources, infrastructures (Wei, et al, 1999). The

institutional design of China's economic reform, which governed the pace of the economic reform across regions, performed a critical role in the location decision of foreign investors. The Chinese government initially opened up four special economic zones and later 14 coastal cities. In the late 1990s, the inland areas were finally granted similar preferential policies to foreign investors. The regions that had opened up earlier could offer various preferential policies to lure foreign investors while the rest of the country could not. These regions enjoyed the advantage of first entry in attracting FDI, which in turn encouraged more FDI inflows, leading to a virtuous cycle of FDI inflows. Additionally, the inland areas are landlocked and with no seas ports; thus not suitable for export oriented FDI, which had been promoted extensively by the Chinese government. Poor infrastructures and relative low level of industrialization also hindered inflows of FDI to the inland areas. All these initial conditions together with the institutional design have made the inland less attractive to FDI. As a result, the distribution of FDI in China has been excessively biased towards the eastern region.

Table 2 summarizes the distribution of FDI stock among three regions: Eastern, Central and Western, from 1985 to 2003. It also shows FDI stock in selected municipal cities and provinces of the eastern region. During the period, the east received \$432.4 billion

in direct investment, which accounted for more than 87.6 percent of the total FDI stock in China, while the central and the western region received only 9.4 percent and 3.1 percent respectively. Guangdong province alone absorbed \$129.8 billion in direct investment, more than 26 per cent of China's FDI stock from 1985 to 2006; making it number one among all provinces and municipal cities in terms of FDI stock. Jiangsu ranked second with \$71.5 billion, more than the sum of FDI in both the central and western regions combined. In terms of per capita FDI stock, the disparity cross regions are also very high. Shanghai ranks number one with \$2,470 per capita, and the eastern regions as a whole have \$808 FDI per capita. In contrast, FDI per capita in the central and western regions were only \$102 and \$56.8 accordingly.

<< Insert Table 2: regional Distribution >>

The excessive concentration of FDI in the east has substantially widened the regional income disparity, a prominent challenge faced by the Chinese economy. The regions with more FDI have benefited substantially from both tangible and intangible assets of FDI, and thus have grown much faster than the areas with less or no FDI. Xing and Zhang (2004) used both parametric and non-parametric methods showing that the uneven distribution of FDI in China is one of the significant factors accelerating the regional income disparity. After a decomposition of the factors contributing to China's

regional income disparity, Wan, Lu and Chen (2007) found that FDI constituted a substantial share of regional disparity, and the share actually rose overtime. Fujiata and Hu (1999) and Wei, Yao and Liu (2007) reached similar conclusions.

3. The Impact of FDI on the Chinese Economy

3.1 FDI and Economic Growth

According to the neo-classic growth theory, growth factor of an economy is comprised of capital, population and total factory productivity. Unambiguously, FDI has become an integral part of China's capital stock, thus contributing to the economic growth directly. From 1985 to 1994, the relative importance of FDI as a part of the Chinese economy's capital formation rose substantially. By 1994, FDI accounted for 17 per cent of annual fixed asset investment while it was only 2 per cent in 1985. As the size of the economy continues to grow, the share of FDI in the total fixed asset investment has gradually declined since 1995. But, from 1995 to 2002, FDI still accounted for more than 10 per cent of the total fixed asset investment every year (Figure 2).

<< Insert Figure 2: FDI as percentage of fixed asset investment >>

For investigating the impact of FDI on China's economic growth, a plethora of literature (e.g., Chen, Chang and Zhang, 1995; Zhang, 2001; Liu, Burridge and Sinclair, 2002) tested the causality between FDI and China's GDP growth. The results of the literature

generally support the hypothesis that inflows of FDI contributed significantly to the GDP growth. Whalley and Xin (2006) decomposed the Chinese economy into “foreign invested sector” and “non-foreign invested sector,” and estimated that the former accounted for more than 40 percent of China’s GDP growth in 2003 and 2004. They argued that, without FDI, China’s GDP growth would be 3.4 percentage points lower. The growth of total factor productivity accounted for one third of China’s economic growth from 1978 to 2004 (Kuijjs and Wang, 2005). FDI has been recognized as one of the major sources driving the growth of the total factor productivity in China. Technology transfer and spillovers are the two major channels for FDI to enhance the growth of TFP. Yao and Wei (2007) estimated that roughly one third of China’s TFP growth was due to FDI.

3.2 FDI and Exports

By 2006, the volume of China’s exports rose to \$910 billion. It was only \$24 billion in 1981. Switching from an inward-looking industrial policy to an export-led economic growth is the major institutional change for the drastic expansion of trade (Lin, Cai and Li, 2003). In the process of implementing the export-led economic growth, FDI has been performing a critical role in promoting China’s exports. Lacking capital, technology, marketing channels and brand name recognition makes it difficult for

Chinese exports entering the world market; in particular, the market of industrialized countries. With the entry of multinational enterprises which utilize China as a platform of exports, China is integrated as a part of global production chains. Combining with the advantages of MNEs in technology, brand names and marketing network, the low cost made-in-China products are able to enter the world market and compete with products from other countries.

<< Insert Figure 3: FDI and China's exports >>

Examining the trade statistics suggests that, the impressive export growth of China in the last three decades has been mainly relying on the export oriented FDI. In 1985, the exports of foreign invested firms were merely \$0.3 billion, just above one percent of China's total exports. By 2006, their exports surged to \$563.8 billion, almost 60 per cent of the total. In 1998, the first year after the Asian financial crisis, the exports of Chinese domestic firms decreased 4.8 percent while that of foreign invested firms grew 8.1 percent. It was the foreign invested firms which made the overall export growth positive. Without FDI, China's export led-economic growth strategy would not be as successful as today.

Foreign invested firms have not only enhanced the volume, but also the structure, varieties and the quality of Chinese exports. According to OECD (2005), China has

emerged as the largest exporter of information communication telecommunication products (ICT), surpassing Japan and the US. ICT products are usually considered as high-value added products. What is the secret of China's achievement in ICT exports? Export oriented FDI is an obvious answer. In 1998, China's high-tech exports were \$20.3 billion, of which foreign invested firms produced 73.7 percent. By 2005, the high-tech exports rose to \$281.5 billion, about 29 percent of China's total exports in the year. The share of foreign invested firms in the high-tech exports jumped to 88 per cent (Table 3). Enhancing the bilateral intra-industry trade between China and FDI source countries implies another contribution of FDI to China's exports. Intra-industry trade is traditionally considered as a phenomenon between two similar trading partners such as industrialized countries. Associated with rising inflows of FDI, intra-firm trade between foreign affiliated firms in China and their parent firms abroad also increases. Intra-firm trade between parent firms and their foreign affiliates usually fall into same industry categories because of specific capital and technology available in both parent firms and their foreign affiliates. China's intra-industry trade with Japan accounted for 34 per cent of the Sino-Japanese bilateral trade in 2004 while it was less than 6 per cent in 1980. The rising intra-industry trade is largely attributed to Japanese direct investment in China (Xing, 2007).

<< Insert table 3: FDI and China's High-Tech Exports>>

3.3 FDI and Productivity Growth

Increasing capital formation and total factory productivity of Chinese economy represent only the contribution of FDI at a macro level. At the micro level, Chinese industries and individual firms also benefit from FDI inflows in terms of productivity growth and technology innovations. The intangible assets with FDI, such as advanced technology, production know-how, management skills, etc. are also the target of FDI host countries. "Market for Technology" strategy unambiguously indicates the intention of Chinese government to acquire advanced technologies through FDI inflows. Given the \$692 billion FDI stock, a critical question to ask is whether FDI has stimulated productivity growth of Chinese domestic firms, or not.

Li, Liu and Parker (2001) employed value-added per worker as a proxy of firms' productivity and showed that the presence of foreign firms and the competition between local and foreign firms gave rise to productivity spillover effects on local Chinese firms. For stated owned enterprises, the competition represents the major source of the spillover while private firms mainly benefited from demonstration and contagion effects associated with the presence of FDI. Chuang and Hsu (2004) used firm level data from the 1995 Third Industrial Census of China to investigate the spillover effect. They

showed that there exists a significant technology spillover effect. In particular, the spillover effect on firms which have a high technology gap with foreign firms is higher than that on firms which have a low technology gap. Hu and Jefferson (2002) separated spillovers into the short and long run, and demonstrated that the effects are negative in the short run, but in the long run the effects are positive due to the exit of non-competitive local firms and the learning effects of the survivors.

Given the existence of the spillovers, the ownership and intrinsic characters of local firms determine to what extent they could benefit from technology spillovers. Private firms tend to enjoy relative more spillovers than state-owned firms (Hale and Long, 2006). Whether a firm invests in R&D and human resources also affects its absorption capacity on the spillovers (Girma, Gong and Gorg, 2006). It is interesting that the origin of FDI and the structure of foreign invested firms in China may play a role in the process of technology spillovers. Abraham, Konings and Slootmaekers (2007) suggested that, spillovers are more likely to arise from Sino-Foreign joint ventures than from wholly foreign owned firms. FDI from Hong Kong and Taiwan leads to higher spillover effects than that from the rest of the world.

4. Factors Attracting FDI

China's success in attracting FDI has been a focal point of academic research. A large amount of literature analyzing the factors determining FDI in China has been published. Special economics zones, preferential policies, high economic growth, market size, rich labor endowment, exchange rates, geographic proximity and culture links are identified as major determinants.

With an average of 9 percent real GDP growth rate, China has been the fastest growing economy in the last three decades in the world. The real GDP growth is usually considered as a proxy for the real rate of return to capitals. It is straightforward to conclude that the sustained rapid economic growth represents one of the most important factors determining FDI into China. Empirical studies on the nexus of FDI and economic growth in the context of China have consistently proved the systematic linkage (e.g., Xing, 2006a; Xing and Wan, 2006). In addition, with a population of 1.3 billion, China is the most populous country in the world. The population plays two distinctive roles in facilitating FDI. On the one hand, it functions as a huge pool of labor supply to global capital. When China opened itself to the rest of world, the opening immediately increased global labor supply and the relative return of capital to labor.

As a consequence, multinational enterprises searching for low production cost locations rushed into China and used China as a production bases for the world market. FDI from Japan, Hong Kong and Taiwan is predominantly export-oriented and driven by cost cutting motives (Xing, 2006b; Zhang, 2005). On the other hand, combining with rising income, 1.3 billion people will create the largest single market in the future. By 2007, China's GDP amounted \$2.68 trillion, making China the fourth largest economy. Its imports reached \$956 billion. Entering the Chinese market and serving billions Chinese consumers has motivated market oriented FDI flowing into China. The US multinationals are typical market seeking investors. The US affiliates in China sold about 75 percent of their products in the Chinese domestic market and their local sales in 2004 reached \$38 billion, even higher than the total US exports to China (the US GAO, 2005).

Cheap labor due to the rich labor endowment is another essential FDI determinant. By relocating production facilities into China, multinationals can fully utilize China's comparative advantage in labor intensive sectors. In addition to the relatively abundant labor endowment, the Yuan's cumulative devaluation performed a critical role in attracting FDI into China; in particular for export oriented FDI. Xing (2006a) argued

that China's exchange regime played a critical role in strengthening China's competitiveness for FDI. Measured in foreign currencies, the Yuan's cumulative devaluation not only reduced the production costs in China, but also raised relative wealth of foreign investors, thus stimulating direct investment into China. Further, the Yuan's devaluation against the US dollar made China more competitive than the countries which competed with China for FDI and pegged their currencies to the dollar. Actually Japanese FDI switching from its traditional destination of the ASEAN-4 in the early 1990s to China was partially fueled by the sharp devaluation of the Yuan (Xing and Wan, 2006).

Geographic proximity and culture linkages with FDI sources also determine FDI in China. Geographic proximity reduces transportation costs for communications and intra-firm trade between parent firms and their Chinese affiliates. Sharing the same culture and languages smoothes business negotiations and lowers uncertainty and risk. As a matter of fact, Hong Kong, Japan, Taiwan and Korea, which are the neighboring economies of China, together accounted for 61 percent of cumulative FDI in China from 1985 to 2006. Moreover, Hong Kong, Singapore and Taiwan, which share the same culture with China, accounted for 51 percent of the total. It is estimated that

China's FDI stock would be 45 percent lower if China's economic center was located in New Delhi; 70 per cent lower if located in New Delhi and without the culture link with FDI source countries (Gao, 2005).

Incentives and promotion policies also contributed to the success of attracting FDI into China. Among the policies implemented by the Chinese government, special economic zones and preferential policies such as tax incentives have been considered as the most effective instruments. Ng and Tuan (2001) investigated the effectiveness of China's FDI promoting policies based on the experience of Guang Dong, the province with the highest share of FDI stock. Their empirical analysis shows that preferential tax provisions are one of the most effective promotion policies. Special economic zones provide a set of preferential policies to foreign investors. Compared with other policy instruments, the positive effects of special economic zones on FDI are much higher (Cheng and Kwan, 2000).

5. Impact on the world Economy

China's cumulative FDI stock is just after that of the US and U.K. China's emergence as the largest FDI host has not only benefited its economic development, but also raised issues of how it would affect FDI source countries as well as the countries competing

for FDI with China. Attracting FDI has been given a high priority in economic development agendas of almost all developing countries. FDI is considered as a shortcut for solving the problem of capital shortage and overcome technological gaps. As more and more foreign companies are attracted by China's rapid economic growth, the market with billions of consumers and relatively low wage workers, an issue for countries competing for FDI is whether the rising FDI inflows into China is at the expense of these countries and whether their potential FDI inflows have been diverted into China.

Figure 4 compares FDI in China with that of the world and developing countries from 1981 to 2006. Clearly, China's share in the global FDI increased substantially from less than one per cent in 1981 to 13 per cent in 1994. Against all developing countries, China's share grew even more dramatically. In 1981, China accounted for just one percent of all FDI flowing into developing countries. By 1994, more than one third of FDI into developing countries went to China. Even though China's share decreased after reaching its peak in 1993, China still absorbed 18 percent of total FDI flowing into the developing world. The simple descriptive statistics may imply that FDI into China crowded out that of other developing countries. However, rigorous empirical studies on the issue resulted in contrasting results and conclusions.

<<Insert Figure 4: FDI Shares>>

Xing and Wan (2006) analyzed the competition for FDI between China and the ASEAN-4 (Indonesia, Malaysia, Philippines and Thailand) in the context of Japanese FDI in the manufacturing industry. They found that China's share jumped to 45 percent from 5 per cent during the period of 1990 to 1995 while the share of ASEAN-4 shrank to 38.5 percent from 66 percent. They examined the crowding out effects on each of the ASEAN-4 countries over nine manufacturing industries and reached a conclusion that rising Japanese FDI in China actually diverted that into the ASEAN-4. Chantasasawat et al (2005) found that there exists a negative correlation between China's FDI inflows and the shares of other Asian economies. Garcia-Herrero and Santabarbara (2006) analyzed whether FDI in China diverted that from Latin American countries. Their empirical results showed that Mexico was negatively affected before 2001 and the impact on the region as a whole was not significant.

Using aggregated FDI data of 14 Asian countries from 1984 to 2002, Mercereau (2005) examined whether rising FDI into China is at the expense of other Asian countries. The analysis indicates that, except for Singapore and Mayamar, FDI in China does not divert that from other low-wage countries. Eichengreen and Tong (2006) argued that FDI

flows into China may be complementary to FDI into other Asian countries, as the latter produces intermediate inputs for the Chinese market. Their empirical results, however, suggest that FDI into European countries may be diverted to China due the shift of marketing concentration of multinational enterprises, especially firms in auto industries.

Chasing high returns and flowing into where the high returns are available is the nature of global capital mobility. Besides China, multinational enterprises investing in China also gain from their direct investment. In FDI source countries, however, to what extent FDI into China would affect the welfare of these countries generated many debates and thoughts. Industrial “hollowing out” is a typical hypothesis on the consequence of FDI into China. Before the Japanese economy recovered from more than a decade of long economic stagnation in 2002, Japanese FDI into China caused a serious concern over hollowing out of the Japanese domestic industry, which could undermine the long term economic growth of Japan (Japanese Cabinet Office, 2002). An OECD study suggested that the employment of Japanese affiliates in China had a significant negative impact on Japanese domestic employment and the impact was much larger than that of the world affiliate employment (Molnar and Taglioni, 2007). The US FDI into China was partially to blame as a source for widening its trade deficit with China, as the FDI in China is considered as a substitute for the US exports to China (Burke, 2000). As more and more

Taiwanese firms relocated their production capacities and R&D activities into mainland China, it is argued that Taiwan also faces a risk of industrial hollowing out (Chen, 2003).

On the other hand, some studies suggest that the negative effect might not exist. Branstetter and Foley (2007) used the firm level data from 1989-2004 to examine whether the US multinationals that expand employment in China to cut their employment at home or other places. Based on the analysis, Branstetter and Foley concluded that “firms that expand in China are almost as likely to expand employment domestically as they are to cut it. This evidence is not what one would expect if growth in China were strictly displacing activity in the US.” A theoretical study by Kim (2007) suggests that, by relocating low skilled industries into China, China’s neighboring countries may benefit in their long-term economic growth if these countries’ labor could be relocated into high skilled industries after transitional unemployment.

6. Concluding Remarks

China’s success in attracting FDI is unique and unprecedented. The role of FDI in the process of China’s economic development of the last three decades is critical and complicated. Without a doubt, China is the largest beneficiary of FDI inflows. Its welfare has been improved significantly by FDI. China’s experiences can serve as a

model for many transitional economies, which have been actively promoting FDI for their economic development. As Chinese labor cost gradually increases and the Yuan continues to revalue against the US dollar, China may lose its competitiveness on attracting export oriented FDI. But, market seeking FDI will gradually dominate as the size of the economy continues to grow. Coping with the transition of FDI from being export oriented to being market oriented may be a new challenge to the Chinese economy.

Given the size of FDI in China and the Chinese economy, the impact of FDI in China on the welfare of the rest of the world depends on many factors. Examining the consequences is imperative for the rest of the world to be prepared with rising China. Further rigorous studies on the issues are needed.

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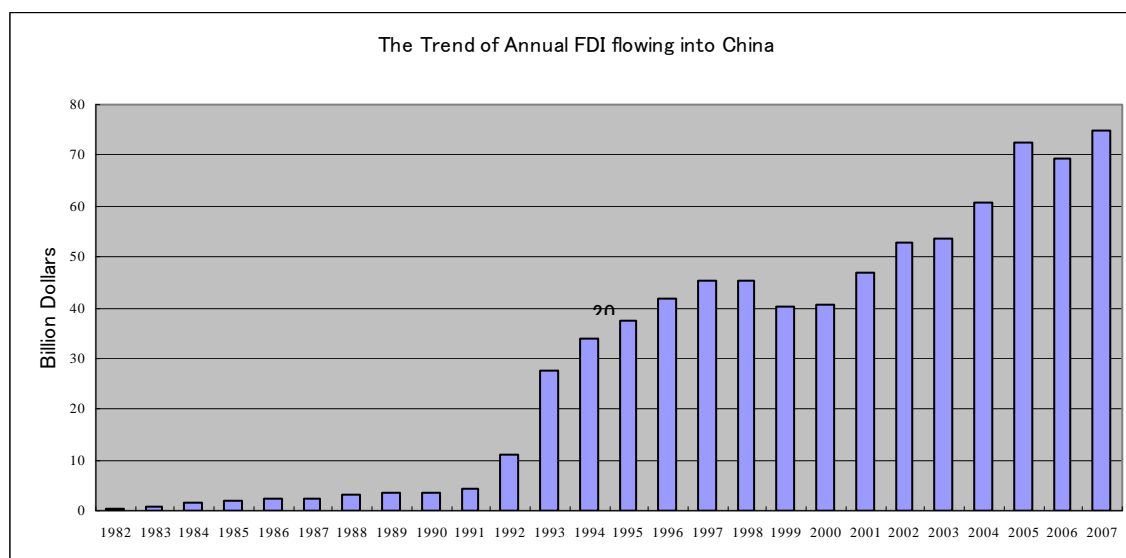
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Figure 1



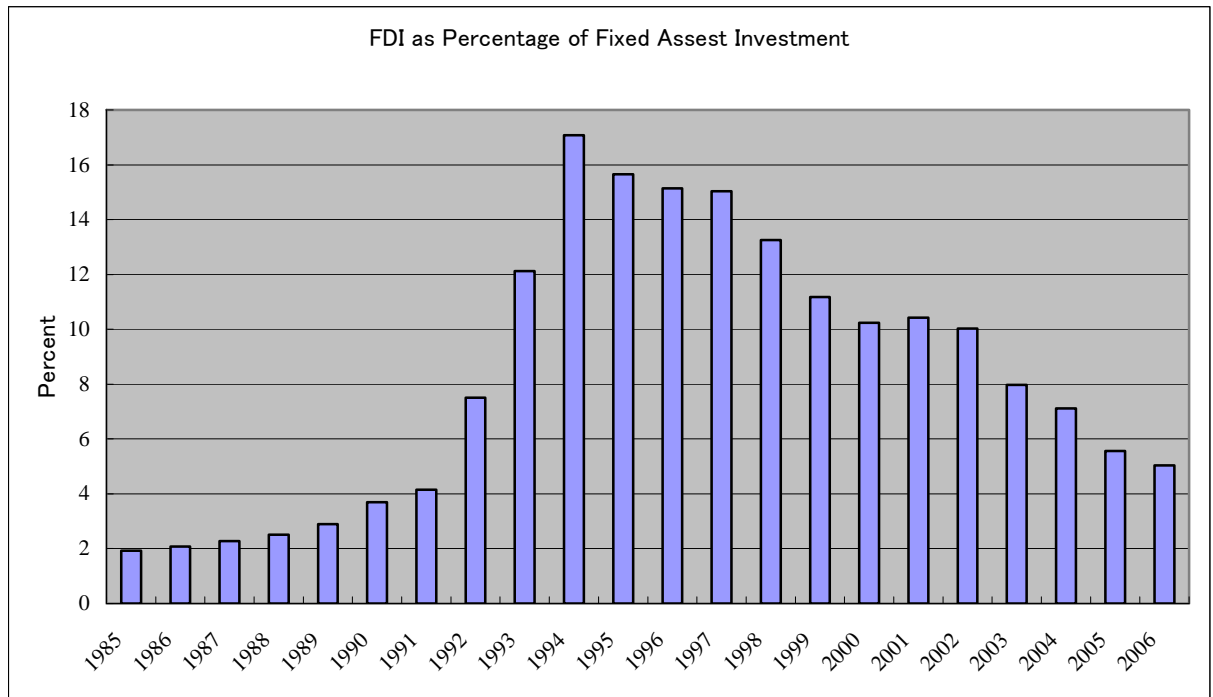
Source: UNCTAD and China Statistics Bureau.

Table 2: The Regional Distribution of FDI Stock in China: 1985-2003

Regions	Total FDI Stock (Billion Dollars)	Share (%)	FDI per capita (dollar)
Eastern	432.4	87.6	808.5
Guangdong	129.8	26.3	1631.5
Jiangsu	71.5	14.5	965.0
Fujian	43.9	8.9	1258.0
Shanghai	42.3	8.6	2470.0
Shandong	36.1	7.3	395.1
Liaoning	23.9	4.8	566.6
Zhejiang	21.5	4.3	458.5
Beijing	19.8	4.0	1361.0
Tianjing	18.7	3.8	1851.4
Central	46.3	9.4	102.4
Western	15.1	3.1	56.8

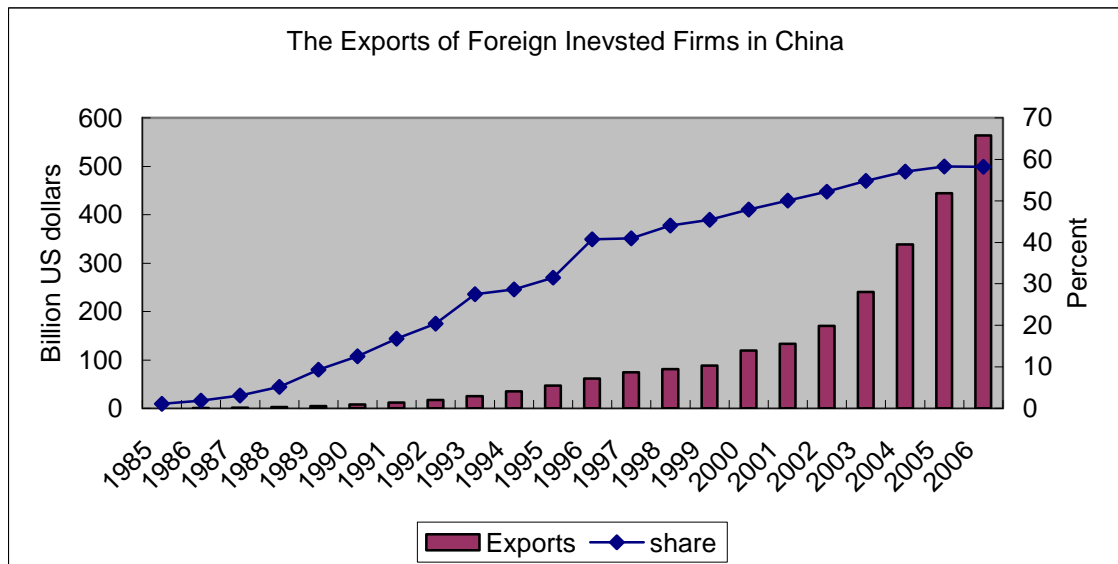
Source: calculated by the author based on various issues of China Statistics Yearbook.

Figure 2



Source: Calculated by the author based on China Statistics Yearbooks.

Figure 3



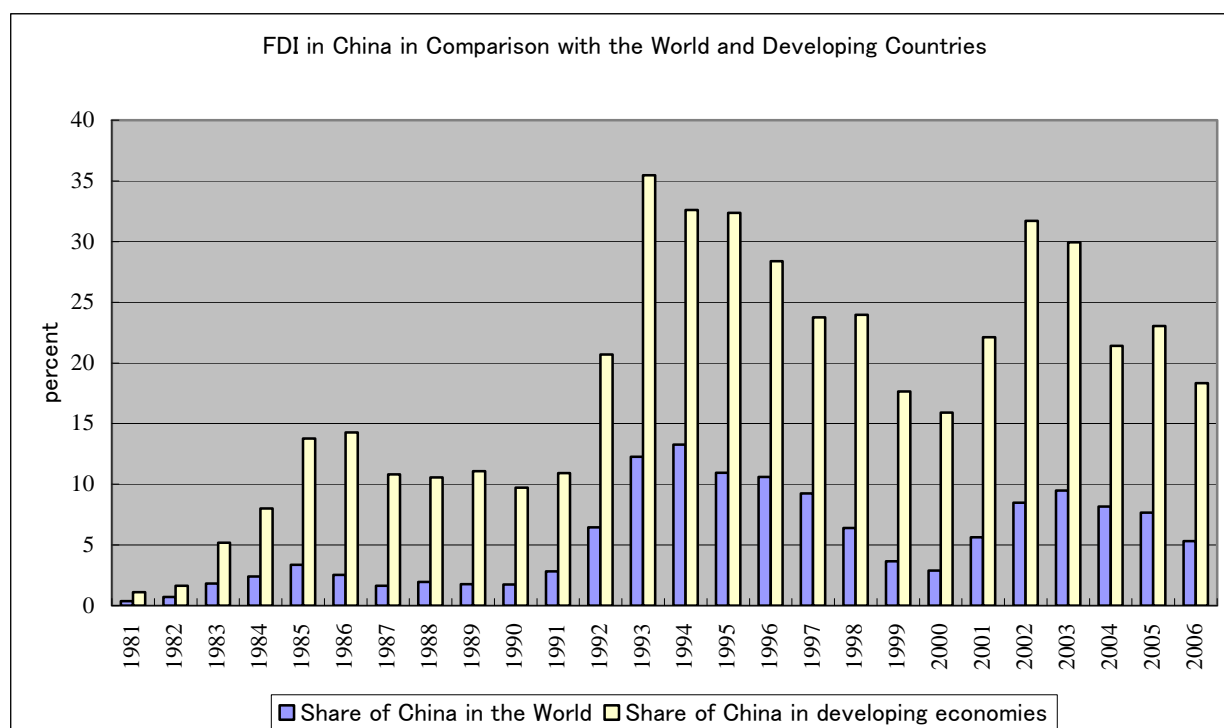
Source: Calculated by the author based on China Statistics Yearbooks.

Table 3: FDI and China's High-Tech Exports

	High-Tech Exports		High-Tech Exports of Foreign Invested Firms (%)
	Value (\$ Billion)	Share in total Exports	
1998	20.3	11.0	73.7
1999	24.7	12.7	76.0
2000	37.0	14.9	N.A
2001	46.5	17.5	81.5
2002	67.9	20.8	82.2
2003	110.3	25.2	N.A
2004	165.4	27.9	87.3
2005	281.5	28.6	88.0

Sources: Tung (2006) and China's Ministry of Commerce.

Figure 4



Source: Calculated by the Author based on the database of UNCTAD.

Table 1: The Major Sources of Foreign Direct Investment in China: 1985-2006
(value in billions US dollars, share in percentage)

Sources	1985-1990		1991-2000		2001-2006		1985-2006	
	Value	Share	Value	Share	Value	Share	Value	Share
The World	15.9	100	327.7	100	343.5	100	687.1	100
Hong Kong	9.7	60.9	159.0	48.5	109.5	31.9	278.1	40.5
Taiwan	0.0	0.0	25.8	7.9	17.7	5.2	43.5	6.3
Japan	2.2	13.6	25.2	7.7	30.2	8.8	57.5	8.4
Korea	0.0	0.0	10.5	3.2	24.7	7.2	35.1	5.1
Singapore	0.2	1.3	16.8	5.1	13.0	3.8	30.1	4.4
USA	1.9	12.1	27.6	8.4	23.9	7.0	55.1	7.9
Germany	0.2	1.3	6.1	1.9	7.6	2.2	13.9	2.0
UK	0.2	1.2	8.4	2.6	5.2	1.5	13.8	2.0
France	0.1	0.9	4.0	1.2	3.4	1.0	7.5	1.1

Sources: Calculated by the author based on various issues of China Statistics Yearbook.