Chapter 6

Foreign Direct Investment in China: Trends, Characteristics and Impacts

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6.1. Introduction

Foreign direct investment (FDI) in China has been one of the most successful aspects of China's economic reform and opening up to the outside world. The gradual liberalisation of restrictions on FDI since 1979 and the government's commitments to further opening up, particularly the commitments to the WTO in trade and investment liberalisation, have greatly improved the overall investment environment in China. Foreign firms have been attracted by the huge domestic market and pool of relatively well-educated, low-cost labour, which have made China one of the most attractive destinations for FDI in the world.

During the last three decades China has attracted a huge amount of FDI inflows and, by the end of 2008, had attracted a total of over US\$880 billion FDI inflows, making it the largest FDI recipient among developing countries. This large amount of FDI inflows has contributed substantially to China's economic development. FDI is playing an increasingly important role in China's economy in terms of capital formation, employment creation, labour training, export promotion,

technology transfer, productivity growth, competition and integration with the world economy.

The following overview of FDI in China is structured as follows. The next section reviews the growth of FDI inflows into China, evaluates China's performance in attracting FDI inflows, and discusses the impact of FDI inflows into China on other countries, particularly on other Asian economies. Section 3 analyses the characteristics and discusses the determinants of FDI inflows into China in terms of the composition of FDI sources and the regional and sectoral distribution of FDI inflows. Section 4 examines the impact of FDI on China's economy in the aspects of capital formation, employment and international trade. Section 5 discusses technology transfer and spillover effects of FDI. The final section summarises the main findings of the study.

6.2. Growth Trend of FDI Inflows into China

During the past three decades, China has attracted a large amount of FDI inflows. As shown in Fig. 6.1, the growth of FDI inflows into China from 1979 to 2008 can be broadly divided into three phases: the experimental phase from 1979 to 1991, the boom phase from 1992 to 2001, and the post-WTO phase from 2002 to 2008.

During the experimental phase, FDI inflows into China were at a very low level but grew steadily. In the second phase, FDI inflows at first increased sharply but slowed after 1997 and actually declined in 1999 and 2000 mainly because of the Asian financial crisis, and then had a moderate recovery in 2001. After entry into the WTO, with the implementation of the WTO commitments and broader and deeper liberalisation in trade and investment, China's economy grew rapidly. As a result, FDI inflows presented an increasing trend, increasing from US\$46.88 billion in 2001 to US\$83.52 billion in 2007.¹

¹ In 2005, China for the first time published the data of FDI inflow into its financial sector — US\$12.1 billion in 2005, US\$6.5 billion in 2006 and US\$8.72 billion in 2007. Therefore, data for FDI inflows from 2005 to 2007 include FDI inflows into the financial sector.

Fig. 6.1. FDI inflows into China (at current price).

Note: Data for 2008 are author's estimation and do not include FDI inflows into the financial sector.

Source: National Bureau of Statistics of China (NBS) (various issues), *China Statistical Yearbook*, Beijing: China Statistics Press.

with an annual growth rate of 10.1 percent. For the first 11 months of 2008, FDI inflows reached US\$86.42 billion, increasing by 26.29 percent over the same period last year (*People's Daily Online*, 2008). By estimation, FDI inflows into China could reach US\$90 billion in 2008,² however, because of the global financial crisis, it is expected that they will slow down in 2009 (*China Daily*, 2008).

Undoubtedly, China has been very successful in attracting FDI inflows, particularly after its WTO accession. However, this success has caused increasing concerns that China has attracted more FDI inflows from the world than it should and has thus crowded out FDI inflows into other countries, particularly into other Asian developing countries.

² Because of the global financial crisis, FDI inflows into China declined from US\$6.72 billion in October to US\$5.32 billion in November, a decrease of 21 percent. Assuming FDI inflows in December will decline by the same rate, therefore, we estimate that FDI inflows into China in December 2008 would be US\$54.2 billion.

Fig. 6.2. China's annual relative performance in attracting FDI inflows, 1987-2008.
Source: Author's calculation.

huge market size, fast economic growth, low labour costs, relatively well-educated human resources, and other economic and geographical characteristics, China's relative performance in attracting FDI inflows is at a level only moderately above its potential.

From a dynamic point of view, as shown in Fig. 6.2, China's relative performance in attracting FDI inflows fluctuated greatly during the 1980s and 1990s. It attracted more FDI inflows than its potential in 1987 and 1988 but from 1989 to 1991 received less FDI inflows than it might have expected.⁴ The unprecedented surge in FDI inflows into China from 1992 is attributed mainly to the implementation of a series of open-door policies in the early 1990s.⁵ As a result, China received much more FDI inflows than its potential from 1992 to 1996. However, from 1997 to 1999 it received less FDI inflows than its potential, mainly because of the negative impact of the Asian financial crisis and a number of economic and policy factors in China.⁶ Since

⁴ China's poor performance in attracting FDI inflows from 1989 to 1991 was largely a result of foreign countries' reaction to the Tiananmen Square Incident.

⁵ For details of China's FDI policy development from 1978 to the 1990s, see Chen (1997a), Chen and Bora (1997a) and Chen and Findlay (2003).

⁶ For a detailed discussion of the factors, see Chen (2007a).

6.2.1. Has China attracted more FDI inflows from the world?

To answer this question, we calculate the relative performance of China in attracting FDI inflows. Chen (2000a) developed a multi-regression empirical model to establish a norm of FDI inflows from all source countries into a developing host country for the period 1987-1998.³ According to the model, FDI inflows from all source countries into developing host countries is a function of a developing host country's market size, economic growth, per capita income, efficiency wages, illiteracy rates, remoteness from the rest of the world, level of FDI inflows, and its economic development strategy. Using the simplified version of the empirical model developed by Chen (2000a), Chen (2002) estimated FDI inflows into China for the period 2001-2010. Against the empirical norm and the model's prediction, we can examine the relative performance of China in attracting FDI inflows.

We define the relative performance of China in attracting FDI inflows as the percentage ratio of the difference between the actual FDI inflows and the FDI inflows predicted by the model. According to the definition, a positive figure indicates that actual FDI inflow is more than the model's prediction, and the larger the figure the better the relative performance of China in attracting FDI inflow. In contrast, a negative figure indicates that actual FDI inflow is less than what China could receive based on its location variables, and the smaller the figure, the poorer its relative performance in attracting FDI inflows. If the figure is zero, then the amount of FDI inflows attracted by China is exactly equal to the amount of FDI that China should receive.

Using the model's prediction and the actual FDI inflows, we calculated the relative performance of China in attracting FDI inflows for the period 1987-2008. In aggregate, from 1987 to 2008 China attracted 2.4 percent (US\$21.11 billion) more FDI inflows than its potential based on its location variables. Therefore, although China is the largest FDI recipient among the developing countries, after controlling for its

³ The empirical model is a multi-regression model with pooled data. The data set contains 32 developing countries for a period of 12 years from 1987 to 1998.

China's accession to the WTO, its relative performance in attracting FDI inflows has been stable around its potential. This is because of a series of factors in China, including macroeconomic stability, fast and steady economic growth, an improved investment environment, accelerated trade and investment liberalisation, social stability and increasing integration with the global economy.

The above analysis reveals that China's relative performance in attracting FDI inflows was only moderately above its potential. Therefore, even though China is the largest FDI recipient among the developing countries and has attracted a large amount of FDI inflows in absolute dollars, in terms of its huge market size, fast economic growth, low labour costs and other economic and geographical characteristics, it received only its fair share of FDI inflows, or at most marginally more than its potential. In fact, from 1987 to 2008, it attracted only US\$21.1 billion more FDI inflows than its potential, accounting for only 2.4 percent of the total FDI inflows into China.

6.2.2. Has China crowded out FDI inflows into other countries?

China's success in attracting FDI inflows has raised increasing concerns that it has crowded out inflows into other countries, particularly into other Asian developing countries. A growing China can add to other countries' FDI inflows by creating more opportunities for production networking and raising the need for raw materials and resources, but at the same time its extremely low labour costs may lure multinationals away from other Asian sites when they consider alternative locations for low-cost export platforms. Theoretically, competition in any resource flow may occur when the resource in question is available in limited amounts. However, this "zero-sum" hypothesis is difficult to justify in the case of FDI. For example, FDI inflows accounted for only 14.8 percent of world gross fixed capital formation in 2007 (UNCTAD, 2008), and additional FDI resources can be easily diverted from domestic resources and other international capital inflows should investment opportunities arise.

As China emerged as a more and more important player in the world economy, particularly in attracting FDI inflows, an increasing number of empirical studies have focused on the effects of FDI into China on FDI into other countries, including, for example, Chantasawat *et al.* (2004), Cravino *et al.* (2007), Eichengreen and Tong (2005), Mercereau (2005), Resmini and Siedschlag (2008), Wang *et al.* (2007) and Zhou and Lall (2005). While these studies all develop a model explaining determinants of bilateral FDI inflows augmented with the FDI into China, they differ in both the measurement of this variable and the estimation techniques.

Chantasawat *et al.* (2004) use data for eight Asian economies (Hong Kong, Taiwan, the Republic of Korea, Singapore, Malaysia, the Philippines, Indonesia and Thailand) in addition to China over the period 1985–2001 and estimate equations for China's FDI inflows and other Asian countries' FDI inflows by two-stage least squares. They find that the level of China's FDI is positively related to the levels of these economies' inward FDI, and that the "China Effect" is generally not the most important determinant of the inward FDI of these economies. Policy and institutional factors such as openness, corporate tax rates and the level of corruption tend to be more important. Zhou and Lall (2005) and Wang *et al.* (2007) estimate panel models to investigate the effect of FDI into China on FDI into Asian economies and also find that, on average, FDI into China has raised rather than diverted FDI into neighbouring countries.

Mercereau (2005) developed an empirical model to investigate the impact of China's emergence on FDI inflows to Asia, using data from 14 Asian economies from 1984 to 2002. In contrast to the above studies, he does not find any positive relationship between China's FDI inflows and FDI inflows to other Asian economies. However, neither does he find much evidence that China's success in attracting FDI has been at the expense of other countries in the region, with the exception of Singapore and Myanmar. Low-wage economies that compete with China for low-wage investment do not appear to have been particularly affected. Low levels of education or scientific developments are not associated with increased crowding out by China either. Some economic fundamentals help to explain the allocation of FDI inflows

among Asian countries, however, and countries might attract more FDI by improving these fundamentals.

Using a gravity model Eichengreen and Tong (2005) show that the emergence of China as a leading FDI destination has encouraged FDI inflows to other Asian countries via supply-chain production linkages. However, they find evidence that FDI inflows into China have substituted FDI inflows into European countries because of the negative effect of distance on supply-chain production linkages. In contrast, Resmini and Siedschlag (2008) estimate an augmented gravity model to analyse the effects of FDI into China originating in OECD countries on FDI into the European Union (EU) and other countries over the period 1990–2004. Their results suggest that on average, *ceteris paribus*, over the analysed period, FDI inflows into China have been complementary to FDI inflows into other host countries as well as into the EU. However, this complementary relationship is not constant across countries, being less strong inside than outside Europe. Also these complementarities follow a decreasing trend over the analysed period.

Finally, Cravino *et al.* (2007) examine the effect of foreign capital stock in China on the Latin American and Caribbean (LAC) countries and find no evidence of FDI diversion from OECD countries, in particular from the US, into China at the expense of the LAC countries. While the growth of capital stocks in China originating from the OECD, especially from the US, was faster than in LAC countries over the period 1990–1997, this relative growth has slowed since 1997.

From the above analysis of China's relative performance in attracting FDI inflows and the review of empirical studies on the effects of FDI inflows into China on FDI inflows into other countries, we may come to the following conclusions: First, although China has been the largest FDI recipient among developing countries and has attracted over US\$880 billion FDI inflows into its economy in the last three decades, based on its location variables it has only received its fair share of global FDI inflows. Second, there is little evidence that China's success in attracting FDI inflows has crowded out FDI inflows into other countries. On the contrary, there is strong empirical evidence that, on average, FDI inflows into China have been complementary to FDI

inflows into other host countries, especially to Asian economies and to China's neighbours.

6.3. Characteristics of FDI in China

FDI in China is characterised by an overwhelming dominance of developing source economies, high concentration in the eastern and southeastern coastal regions, and biased investment towards the manufacturing sector.

6.3.1. Overwhelming dominance of developing source economies

By the end of 2006, FDI in China was overwhelmingly dominated by the developing economies, which accounted for 73.99 percent of the total accumulated FDI inflows into China, while developed economies accounted for only 26.01 percent of the total. In terms of individual investors (see Fig. 6.3), FDI in China was dominated by four investors — Hong Kong, Japan, the United States and Taiwan — accounting for 41.84 percent, 8.48 percent, 7.95 percent and 6.47 percent of the total accumulated FDI inflows into China, respectively;

Fig. 6.3. Shares of accumulated FDI by source economies in China (1983–2006). Note: The calculation is based on 2000 constant US dollar prices.

Sources: Calculated from National Bureau of Statistics of China (NBS) (various issues), China Statistical Yearbook, Beijing: China Statistics Press.

Fig. 6.4. FDI inflows into China by source countries and economies (at 2000 constant US dollar prices).
Source: National Bureau of Statistics of China (NBS) (various issues), *China Statistical Yearbook*, Beijing: China Statistics Press.

After China's accession to the WTO, as shown in Fig. 6.4, developing economies increased investments in China substantially, growing from US\$32.22 billion in 2001 to US\$43.04 billion in 2006, with an annual growth rate of 5.96 percent. However, FDI inflows from developed economies increased only slightly during 2002–2005 and declined in 2006.

Why has China been so successful in attracting FDI inflows from developing economies, especially Hong Kong and Taiwan, but not from developed economies, especially European countries, even though they are the major investors for world FDI? Chen (1997b, 2000b, 2002) calculated an investment intensity index and conducted an empirical regression analysis of the investment relations between China and its major investors. This index reveals the relative importance of a country as a host for a source country's investment as

compared to the rest of the world as a host for the same source country's investment, and is usually used as an indicator of investment relations between countries.⁷

The studies found that the investment intensity index for the major investors varies enormously. For the major investors from developing economies, including Hong Kong, Taiwan, Singapore, South Korea, Thailand, Malaysia, Indonesia and the Philippines, the indexes are all above 100 percent, indicating that these economies' investments in China have been more than the amount of their shares of investments in the world. In other words, China is more important as a host for these economies' investments compared to the rest of the world. In contrast, the investment intensity indexes for the major investors from developed countries are all below 100 percent, particularly for the European countries. However, among the developed countries, the investment intensity indexes of Japan, the United States, Australia and New Zealand are relatively high compared with those of the European countries, which reflect the regional biases of these countries' investments in the Asia-Pacific region.

The empirical regression analysis revealed that the investment intensities of the major investors in China are negatively related to the gaps of

⁷The equation of investment intensity index is as follows:

$$I_{ij} = \left(\frac{I_{ij}}{I_{jw}} \right) \times 100$$

where:

- I_{ij} = investment intensity index of i 's investment in j ;
- I_{ij} = investment by i (source country) in j (host country);
- I_{jw} = investment from the world in j ;
- I_{iw} = investment from i to the world;
- I_{ww} = total investment in the world.

The index measures the relative importance of country j as a host for country i 's investment as compared to the rest of the world. It can be interpreted as a measure of the relative resistances to FDI flows between countries reflected by the variations in the investment intensity index. If the index is above 100 percent, it indicates that country i 's investment in country j is more than the amount of its share of investment in the world. This implies that the relative resistance to FDI flows between country i and country j is lower than those between country i and the rest of the world.

economic and technological development levels and positively related to the levels of economic proximity between China and the major investors.

The domination of developing economies in FDI in China could be attributed to their economic development level and the nature and characteristics of their firms. Because developing economies have moderate technological and innovative capabilities and are at the mid-level of economic development, the ownership advantages possessed by their firms are more concentrated in the forms of labour-intensive production technology, standardised manufacture products and well-established export market networks. Obviously, China, being relatively abundant in labour resources and having a comparative advantage in labour-intensive activities, is an attractive location for the developing economies' investors to explore overseas investment opportunities, particularly for export-oriented FDI. In addition, Hong Kong, Taiwan and, to a lesser extent, Singapore, South Korea and the ASEAN-4 (Thailand, the Philippines, Malaysia and Indonesia) have high proximity with China. The common Chinese culture and language, extensive Chinese business networks,⁸ and close geographical distance greatly reduce the costs of doing business in China for these investors and have led to and facilitated companies within these economies to venture into China. Therefore, it is expected that China will remain an important host country for investments from developing economies for a relatively long period.

There are many reasons for the low level of FDI inflows into China from the developed countries. Apart from the relatively large economic and technological development gaps and the low proximities between most developed countries and China, several other factors may hinder FDI inflows into China. First, firms from developed countries usually possess more advanced technology and production techniques. Since the legal network for protecting intellectual property rights in China is poor, these firms are reluctant to invest in China. Second, the services sector in developed countries is advanced and

has recorded the highest growth rates in global FDI over the last two decades. FDI in China's services sector has been restricted and most of the services industries were closed to foreign investments before China's accession to the WTO in 2001. Third, the large multinational enterprises (MNEs) are the main carriers of FDI from developed countries, and cross-border mergers and acquisitions (M&As) are an increasingly important means by which they carry out their FDI. However, cross-border M&As transactions by foreign investors in China have to date only been allowed in an experimental fashion with very strict restrictions. All of these factors have strong negative impacts on the investment decisions of the developed countries' investors who are considering investing in China. Not surprisingly, the result is that the magnitude and the intensity of investment from developed countries in China are very low compared with their total investments in the world.

Obviously, the current composition of FDI sources needs to be diversified if China wants to benefit more from FDI. The diversification of FDI sources is not only necessary for China to attract more FDI inflows, but is also very important to attract high quality FDI inflows. In general, enterprises from developed countries with high technological and innovative capabilities will possess more ownership advantages in the forms of high technology, product differentiation, managerial and entrepreneurial skills, and knowledge-based intangible assets. Because of these firm-specific ownership advantages, FDI from developed countries is more market oriented. The general implication is that host countries with larger market size, faster economic growth and a higher degree of economic development will attract more market-oriented FDI. China's huge domestic market, fast economic growth and increasing per capita income are very attractive to developed countries' investors, particularly to market-oriented FDI. Therefore, China has a great potential to attract FDI from developed countries. However, to realise its potential, it must fulfil its commitments to the WTO in trade and investment liberalisation, particularly in strengthening the protection of intellectual property rights, opening more economic sectors, especially the services sector, to FDI, and relaxing restrictions on cross-border M&As.

⁸ For more detailed analysis on overseas Chinese business networks see EAAU (1995).

6.3.2. Unbalanced regional distribution of FDI inflows

Since China started to attract FDI, the regional distribution of FDI inflows into China has been very uneven and overwhelmingly concentrated in the east. While there have been some small fluctuations, the gap between the eastern region and the central and western regions in receiving FDI inflows has increased, especially since the early 1990s. As shown in Fig. 6.5, by the end of 2006, the eastern region⁹ attracted 86.6 percent of the total FDI inflows into China while the central region¹⁰ and the western region¹¹ received only 8.92 percent and 4.48 percent, respectively.

Fig. 6.5. Shares of accumulated FDI in China by regions (1983–2006).

Note: The calculation is based on 2000 constant US dollar prices.

Sources: Calculated from National Bureau of Statistics of China (NBS) (various issues), *China Statistical Yearbook*, Beijing: China Statistics Press; and Ministry of Commerce of China (MOFCOM) (various issues), *China Foreign Investment Report*, Beijing: MOFCOM.

⁹ The eastern region includes Beijing, Tianjin, Hebei, Liaoning, Shanghai, Jiangsu, Zhejiang, Shandong, Fujian, Guangdong and Hainan.

¹⁰ The central region includes Shanxi, Jilin, Heilongjiang, Henan, Hubei, Hunan, Anhui and Jiangxi.

¹¹ The western region includes Inner Mongolia, Guangxi, Chongqing, Sichuan, Yunnan, Guizhou, Tibet, Shaanxi, Gansu, Qinghai, Ningxia and Xinjiang.

With China's accession to the WTO it was expected that the trade and investment liberalisation would bring more benefits to the eastern region than to the rest of the country, especially than to the western region, and therefore that the economic growth in the eastern region would be higher and faster than that in the central and western regions. Consequently, it was expected that more FDI would flow into the eastern region and the uneven regional distribution of FDI inflows into China, especially between the eastern and the western regions, would be reinforced in the short run. As shown in Fig. 6.6, after China's entry into the WTO, FDI inflows continued to be concentrated in the eastern region and increased rapidly from US\$39.40 billion in 2001 to US\$50.04 billion in 2006. In contrast, on average, FDI inflows into both the central region and the western region declined during this period.

Fig. 6.6. FDI inflows into China by regions (at 2000 constant US dollar prices). Source: National Bureau of Statistics of China (NBS) (various issues), *China Statistical Yearbook*, Beijing: China Statistics Press, and Ministry of Commerce of China (MOFCOM) (various issues), *China Foreign Investment Report*, Beijing: MOFCOM.

Empirical studies reveal that this uneven regional distribution of FDI inflows within China is primarily caused by the differences in location determinants affecting FDI inflows (Chen, 1997b, 2006, 2003). To determine if this situation could be improved in the near future, Chen (2003) calculated the inward FDI attractiveness index for China's provinces and regions.¹² The study reveals large differences among China's provinces and regions in the inward FDI attractiveness index. Because of their relatively more open and developed economy, closer connections with the outside world, better infrastructure, higher level of scientific research and technical innovation, and higher quality of labour forces, the most attractive provinces are Shanghai, Guangdong, Beijing, Tianjin, Jiangsu, Fujian, Zhejiang and Shandong, all in the east region.

Although there has been some improvement in the investment environment for FDI, the central and western regions still have very low FDI attractiveness in terms of location factors. On a comparable basis, the attractiveness to FDI of these two regions lags 10–15 years behind that of the eastern region. The poor performance of the central and particularly the western region in attracting FDI inflows is mainly attributed to their poor overall investment environment. To boost economic growth and therefore reduce the gap of economic development between the eastern region and the central and western regions, in 1998 the Chinese government launched the "West Development Strategy".¹³ This strategy emphasises infrastructure development, environmental protection, industrial structural readjustment, development of the sciences and education, and economic reform and openness. To improve the investment environment and accelerate economic growth

in the western region, China has invested heavily in its infrastructure development.¹⁴

Undoubtedly the West Development Strategy and the further opening up of the central and western regions have provided great opportunities for foreign investors. However, because the inward FDI attractiveness index values are largely based on structural economic factors that tend to change slowly over time, it is unrealistic to expect that the central region and particularly the western region will attract large FDI inflows in the near future. Therefore, the eastern region will continue to attract most of the FDI inflows into China, and the uneven regional distribution of FDI inflows into China will persist.

6.3.3. Sectoral distribution of FDI inflows

By the end of 2006, the sectoral distribution of FDI in China was characterised by the concentration of FDI in the manufacturing sector. As shown in Fig. 6.7, this sector attracted 65.11 percent, the services sector attracted 32.16 percent and the primary sector attracted only 2.73 percent of total FDI inflows during the period 1997–2006.¹⁵

After China's accession to the WTO, as shown in Fig. 6.8, FDI inflows continued to be concentrated in the manufacturing sector. These increased from US\$30.18 billion in 2001 to US\$39.43 billion in 2004, but declined to US\$35.23 billion in 2006. Studies of the impacts of China's accession to the WTO predicted that China's labour-intensive manufacturing industries, especially the textiles and clothing industries, would grow rapidly, led by the large expansion of exports

¹⁴The major infrastructure projects include, for example, investing 120 billion yuan in highway and road construction from 2000 to 2020; investing 100 billion yuan in large and medium-sized railway projects from 2000 to 2005; creating a hydro-electricity generation base in the western region and constructing a national electricity supply network to transport electricity from the western region to the eastern region from 2000 to 2015; investing 300 billion yuan in gas pipeline construction to transport natural gas from the western region to the eastern region from 2000 to 2007; and constructing more airports in the western region (Office of the West Development Leading Group of the State Council, 2000).

¹⁵Data for actual FDI inflows before 1997 by sector are not available.

¹²The inward FDI attractiveness index is the average of the scores on 15 variables (including three dummy variables) for each province or region. The value of the index ranges from 0 to 1. The higher the value of the index, the more attractive a province or a region is to inward FDI.

¹³According to the West Development Strategy, the areas include 12 provinces, municipalities and autonomous regions — Sichuan, Chongqing, Guizhou, Yunnan, Gansu, Shaanxi, Qinghai, Ningxia, Xinjiang, Tibet, Guangxi and Inner Mongolia — and two prefectures — Eashi in Hubei Province and Xiangxi in Hunan Province.

Fig. 6.7. Sectional distribution of accumulated FDI inflows in China (1997–2006).
 Note: The calculation is based on 2000 constant US dollar prices.
 Source: Calculated from National Bureau of Statistics of China (NBS) (various issues),
China Statistical Yearbook, Beijing: China Statistics Press.

resulting from the reduction of import tariffs and the elimination of import quotas from the developed countries on the imports of China's labour-intensive manufactured goods.¹⁶ It was expected that the introduction of foreign capital, technology and advanced equipment to upgrade labour-intensive industries would accelerate this process and therefore even more FDI would flow into China's manufacturing sector.

FDI inflows into the primary sector continued to decline after 2001. This is not surprising given the declining share of the agricultural sector in China's national economy and the rapid loss of overall comparative advantage in agricultural production in China (Chen, 2006). In addition, China's agricultural land tenure system and the traditional small-scale family-based agricultural production pattern have greatly limited the inflows of agricultural FDI with large-scale production and advanced technology. Therefore, China will not attract large amounts of FDI inflows into its agricultural sector without fundamentally changing its land tenure system and

¹⁶ See, for example, McKibben and Wilcoxen (1998), Walmsley and Hertel (2000), UNCTAD (2000), Chen (2002).

Fig. 6.8. FDI inflows into China by sectors (at 2000 constant US dollar prices).
 Note: Excluding FDI inflows into finance services.
 Source: National Bureau of Statistics of China (NBS) (various issues), *China Statistical Yearbook*, Beijing: China Statistics Press.

dramatically reforming the traditional family-based small-scale farming pattern. On 19 October 2008, the Communist Party of China (CPC) Central Committee approved "The Decision on Major Issues Concerning the Advancement of Rural Reform and Development" (CPC, 2008) that allows farmers "to lease their contracted farmland or transfer their land-use rights". The policy is aimed at promoting farmland consolidation, thus creating farming economies of scale, improving agricultural productivity and increasing farmers' income. This policy change should have a positive impact on FDI inflows into China's agricultural sector.

While China made substantial commitments to the WTO to open its services sector to international trade and FDI, it took a step-by-step approach to implementing these. In most of the services sectors, especially in telecommunications, banking and insurance, wholesale and retail, storage, and transportation, China fulfilled its commitments

three to five years after its accession to the WTO. As a result, FDI inflows into the services sector grew only slowly during 2002–2005, increasing sharply in 2006 to reach US\$19.24 billion. It is expected that with further and full implementation of its commitments to the WTO, China will attract more FDI inflows into the services sector.

6.4. Impact of FDI on China's Economy

Because of its unique nature, FDI must have some impacts on the host countries' domestic economy. In the literature, FDI is shown to have played major roles in the development process of a host country economy, for example, the contribution to domestic capital formation, the creation of employment opportunities, the promotion of international trade, the transfer of technology, the role in economic restructuring, and the introduction of competition to the domestic economy. Over the past three decades, China has attracted huge amounts of FDI inflows and FDI firms have generated some important impacts on China's domestic economy.

6.4.1. Capital formation

Both in the general literature and in empirical evidence, FDI has been supposed, and has been proved, to have played major roles in the development process of a host country's economy, especially in the domestic capital formation of developing countries. To discover how important FDI inflows have been in China's domestic capital formation we analyse the ratio of FDI inflows in China's domestic gross fixed capital formation and the share of foreign capital in China's total investment in fixed assets for the period 1994–2006.¹⁷

FDI has provided important external finance to China's economic development. As shown in Fig. 6.9, in terms of domestic gross fixed capital formation, FDI inflows reached 17.3 percent of China's

Fig. 6.9. FDI inflows as a percentage of gross fixed capital formation and foreign capital in total investment in fixed assets in China (1994–2006).

Source: Calculated from National Bureau of Statistics of China (NBS) (various issues), *China Statistical Yearbook*, Beijing: China Statistics Press.

domestic gross fixed capital formation in 1994. However, the ratio of FDI inflows in China's domestic gross fixed capital formation then declined continuously, falling to 6.4 percent in 2006. The main reason for this decline is the much higher growth rate of China's domestic gross fixed capital formation as compared with that of FDI inflows. During 1994–2006, the annual growth rate of China's domestic gross fixed capital formation was 14.74 percent, while the annual growth rate of FDI inflows into China was 6.59 percent.

The above figures, however, may overestimate the real contribution of FDI to China's domestic gross fixed capital formation. In fact, total FDI inflows have not all been used as long-term fixed capital investment. There is evidence that investment in fixed assets made by FDI firms accounted for only a portion of the total FDI inflows into China each year. FDI firms' investment in fixed assets accounted for around

¹⁷ China unified its dual exchange rate system in 1994. As a result, the exchange rate of RMB to the US dollar depreciated sharply from 5.76 yuan per US dollar in 1993 to 8.62 yuan per US dollar in 1994. For consistency, data before 1994 were excluded from the analysis.

80 percent of the total FDI inflows into China in the late 1990s, and in earlier years was much lower. The remainder (around 20 percent) of FDI inflows may have been used by FDI firms as working capital and for inventory investment (Chen, 2002).

To evaluate the real contribution of FDI to China's domestic capital formation, we use the share of foreign capital in China's total investment in fixed assets. As shown in Fig. 6.9, the share reached the highest level of 11.8 percent in 1996, declined continuously to 4.6 percent in 2001, stabilised around 4.4 percent during 2002–2005 and fell below 4 percent in 2006.

The above analysis suggests that, although the share of FDI in China's domestic capital formation has been declining, for a large and fast-growing economy like China — the fourth largest economy in the world with an average annual GDP growth of around 10 percent for the last three decades — FDI has provided an important supplementary source of finance to China's domestic capital investment, thus contributing to its economic development.

6.4.2. Employment opportunities

In the developing countries, where capital is relatively scarce but labour is abundant, one of the most prominent contributions of FDI to the local economy is the creation of employment opportunities. In general, FDI involves direct and indirect employment effects in a host country's economy. Direct employment refers to the total number of people employed within the FDI firms. Indirect employment effects refer to the employment opportunities indirectly generated by FDI firms' activities in the host country's domestic economy. While indirect employment effects are very difficult to measure, the results of a series of country case studies conducted by the International Labour Organization (ILO) show that the indirect employment effects associated with inward direct investment may sometimes be as important, if not more, than the direct effects (Dunning, 1993).

Because of the difficulties in measuring indirect employment effects, we confine our analysis to the direct employment effect of FDI in China but acknowledge the importance of the indirect employment effects

Fig. 6.10. FDI firms' urban employment in China (1994–2006).

Sources: Calculated from National Bureau of Statistics of China (NBS), *China Statistical Yearbook*, Beijing: China Statistics Press.

Figure 6.10 shows that the urban employment of FDI firms in China increased significantly during 1990–2006: they employed 0.66 million workers or 0.45 percent of China's urban employment in 1990, which increased to 14.07 million workers or 4.97 percent of China's urban employment in 2006.

6.4.3. Export promotion

There is considerable evidence that FDI contributes to the growth of host countries' international trade. The most direct way to measure its impact on China's international trade growth is to examine the international trade performance of FDI firms. Table 6.1 presents the international trade performance of FDI firms from 1980 to 2006. In terms of the total trade value, FDI firms' trade increased spectacularly from US\$0.04 billion in 1980 to US\$236.71 billion in 2000 and further to US\$1036.27 billion in 2006, with an annual growth rate of 47.82 percent. As a result, the importance of FDI firms in China's international trade has increased dramatically from only 0.11 percent in 1980 to 49.91 percent in 2000 and further to 58.87 percent in 2006.

China's policy has been deliberately biased towards export-oriented FDI and as a result, these firms have rapidly become major exporters.

Table 6.1. FDI firms' international trade performance (1980–2006).

Year	Value of FDI firms' trade (billion \$US)				FDI firms as % of China's total	
	Total trade	Exports	Imports	Total trade	Exports	Imports
1980	0.04	0.01	0.03	0.11	0.05	0.17
1985	2.36	0.29	2.06	3.39	1.09	4.89
1990	20.12	7.81	12.31	17.43	12.58	23.07
1995	109.82	46.88	62.94	39.10	31.51	47.66
2000	236.71	119.44	117.27	49.91	47.93	52.10
2001	259.10	133.24	125.86	50.84	50.07	51.68
2002	330.24	169.99	160.25	53.20	52.21	54.29
2003	472.17	240.31	231.86	55.48	54.84	56.17
2004	663.18	338.61	324.57	57.44	57.07	57.83
2005	831.64	444.18	387.46	58.49	58.30	58.71
2006	1036.27	536.78	472.49	58.87	58.19	59.70

Sources: National Bureau of Statistics of China (NBS) (various issues), *China Statistical Yearbook*, Beijing: China Statistics Press; and National Bureau of Statistics of China (NBS) (various issues), *China Foreign Economic Statistical Yearbook*, Beijing: China Statistics Press.

As Table 6.1 shows, in 1980 the value of exports from FDI firms was US\$0.01 billion, accounting for only 0.05 percent of China's total exports. By 2000, exports from FDI firms had reached US\$119.44 billion, accounting for 47.93 percent of China's total exports, and by 2006 had reached US\$536.78 billion, accounting for 58.19 percent of China's total exports.

Some empirical studies investigate the relationship between FDI and China's international trade. Using a gravity model, Chen (1997c, 1999) investigated the impact of inward FDI stock on China's provincial trade and China's bilateral trade for the period 1990–1993. He reports that inward FDI stock has a positive impact both on China's provincial trade and its bilateral trade with its 101 trading partners. The explanation for this finding is that, given the overwhelming dominance of developing source economies and their labour-intensive investment

pattern, FDI in China is mainly export oriented and, therefore, has a positive impact on promoting China's international trade. Lardy (1995), Zhang and van den Bulte (1999) and Hu and Ma (1999) also find a positive impact of FDI presence on China's export expansion.¹⁸ Tse *et al.* (1997) and Sun and Parkh (2001), focusing on manufacturing industries in China, find a positive impact of inward FDI on China's exports. However, the role of FDI on exports changes across regions: it has a positive and significant impact on exports from the coastal and central regions, but its impact on exports from the western region is found to be insignificant.

Extending the analysis on the relationship between FDI inflows and China's international trade to an international framework, Liu, Wang and Wei (2001) use a gravity model with the panel data of bilateral trade for China and its 19 trading partners over the period 1984–1998 to examine the causal relationship between FDI inflows into China and China's imports and exports. They find that the growth of China's imports from a country/region causes the growth of FDI inflows from that home country/region, which in turn leads to the growth of exports from China to that home country/region. Li (2003) uses the panel data of bilateral trade and FDI inflows for China and its 75 trading partners over the period 1989–2000 to confirm the mechanism in Liu, Wang and Wei (2001). He finds that inward FDI has a larger predicted impact on China's imports than does outward FDI, and is highly dependent on FDI's motivation and region-specific characteristics. Using a similar method but a different dataset, Hu and Ma (1999) explore a more specific relationship between China's intra-industry trade with the rest of world and FDI inflow. They find that China has the prerequisite of intra-industry trade and that this is heavily driven by FDI inflows.

While the above empirical studies help to explain the relationship between FDI inflows and China's international trade, they do not explore how the entry of FDI firms may affect domestic firms' trade behaviour. This is an area for future study.

¹⁸ I would like to thank Yu Sheng for providing the literature review.

6.5. Technology Transfer and Spillover Effects of FDI

Technology transfer is one of the primary motivations for developing countries to attract FDI. It is often hoped that such technology transfer will go beyond the actual projects undertaken by foreign investors and, through knowledge spillovers, will benefit domestic firms and increase their productivity. For the last three decades the Chinese government has designed specific policies and offered generous incentives to encourage foreign investors to introduce advanced technology, production know-how, marketing techniques and management skills in the hope that these technologies will spill over into China's domestic industries. However, have foreign investors brought advanced technologies into China and, if so, have these technologies spilled over into China's domestic firms?

6.5.1. Has FDI brought advanced technologies into China?

According to the theories of FDI, for a firm to invest overseas it must possess some ownership advantages, for example a product or a production process to which other firms do not have access such as a patent or blueprint. It could also be some specific intangible assets or capabilities such as technology and information, managerial, marketing and entrepreneurial skills, organisational systems and access to intermediate or final goods markets. Whatever its form, the ownership advantage confers some valuable market power or cost advantage on the firm sufficient to outweigh the disadvantages of doing business abroad (Dunning, 1993; Caves, 1996).

When foreign firms conduct FDI and start production, the ownership advantages they possess will be brought into the host country in which they operate. While it is difficult to directly measure the extent to which ownership advantages, such as technology and managerial skills, have been brought in by FDI firms, there are several ways to measure them indirectly. These include analysing the level of presence of FDI in domestic industries, analysing the industrial structure of FDI

Table 6.2. Level of presence of FDI firms in the manufacturing sector by total assets (%).

Industry	1995	2001	2006
Labour-intensive	25.18	31.44	34.96
Capital-intensive	11.74	15.78	24.09
Technology-intensive	22.04	33.44	44.28
Total	18.93	25.07	32.95

Sources: Calculated from National Bureau of Statistics of China (NBS) (various issues), *China Statistical Yearbook*, Beijing: China Statistics Press.

firms, and examining basic indicators of firm characteristics, including the size, physical capital intensity and labour productivity of both FDI firms and domestic firms.

In China's manufacturing sector, as shown in Table 6.2, FDI firms increased their level of presence substantially during 1995–2006. In aggregate, the level of presence of FDI firms in China's manufacturing sector increased from 18.93 percent in 1995 to 32.96 percent in 2006. Among the three industry groups — labour-intensive, 19 capital-intensive²⁰ and technology-intensive²¹ — the level of presence of FDI firms in technology-intensive industries increased the most rapidly and dramatically, reaching 44.28 percent in 2006. FDI firms in labour-intensive industries also increased their level of presence substantially,

¹⁹ Labour-intensive industries include food processing, food manufacturing, textiles, clothing and other fibre products, leather and fur products, timber processing, furniture manufacturing, printing, cultural, educational and sports goods, rubber products, plastic products, non-metal mineral products, metal products, and others.

²⁰ Capital-intensive industries include beverage manufacturing, tobacco processing, paper and paper products, petroleum refining and coking, chemical materials and products, chemical fibres, ferrous metal smelting, non-ferrous metal smelting, and transport equipment.

²¹ Technology-intensive industries include medical and pharmaceutical products, general machinery, special machinery, electrical machinery and equipment, electronics and telecom equipment, and instruments and meters.

reaching 34.96 percent in 2006. While the level of presence of FDI firms in capital-intensive industries is still relatively low compared to those in the other two sectors, it increased to 24.09 percent in 2006. Given the ownership advantages of FDI firms, the large and rapid increase in their level of presence indicates an increasing and rapid transfer of technology of FDI firms to China's manufacturing sector, especially to technology-intensive industries.

In the last three decades, the composition of FDI inflows into China's manufacturing sector has changed from being heavily concentrated in labour-intensive industries towards more investments in capital-intensive and technology-intensive industries, which has led to significant changes of FDI firms' industrial structure in the manufacturing sector. As shown in Table 6.3, from 1995 to 2006, the share of labour-intensive industries declined while the share of capital-intensive industries, especially the share of technology-intensive industries, increased in the industrial composition of FDI firms in the manufacturing sector. The share of labour-intensive industries declined from 47.19 percent in 1995 to 30.17 percent in 2006, while the shares of capital-intensive and technology-intensive industries increased from 25.43 percent and 27.38 percent in 1995 to 31.40 percent and 38.43 percent in 2006, respectively. The changing industrial structure of FDI firms from the high concentration in labour-intensive industries towards more investments

in capital-intensive and technology-intensive industries is clearly an indication of increased technology transfer into China's manufacturing sector by FDI firms.

Because of their ownership advantages, FDI firms, compared with domestic firms, are supposed to be superior in some basic firm indicators, such as firm size, physical capital intensity and labour productivity. For industries with internal economies of scale, the size of the firm is very important for it to reap the benefits from such economies of scale. If the size of FDI firms is larger than that of domestic firms in the same industry, then they should be more technically efficient in production than domestic firms, thus indicating that FDI firms use more technically efficient methods in their production. Physical capital intensity is the capital-to-labour ratio. Usually FDI firms have higher capital-to-labour ratio than do domestic firms in the same industry. This higher capital-to-labour ratio may represent a more technologically advanced production method that requires high capital intensity. Labour productivity is the value-added per worker. A higher figure of value-added per worker represents a higher productivity of the firm. Because of their distinctive ownership advantages, FDI firms are usually expected to have higher productivity compared with domestic firms.

Chen and Bora (1997b), Chen (2002) and Chen and Findlay (2004) find that, compared with domestic firms, FDI firms have larger firm size, higher physical capital intensity and higher labour productivity in China's manufacturing sector. From a dynamic perspective, Chen (2007b) finds that FDI firms on average are superior to domestic firms in terms of firm size, capital-to-labour ratio and labour productivity. However, the level of superiority of FDI firms over domestic firms weakened, particularly in labour-intensive industries, during 2001 to 2005.

Table 6.4 presents the ratios of firm size, capital-to-labour ratio and labour productivity of FDI firms to domestic firms in China's manufacturing sector for the years of 1995, 2001 and 2006.

As Table 6.4 shows, in terms of size, FDI firms on average are larger than domestic firms, which is particularly apparent in technology-intensive industries. This suggests that FDI firms are more able than

Table 6.3. Industrial structure of FDI firms in the manufacturing sector by total assets (%).

Industry	1995	2001	2006
Labour-intensive	47.19	36.55	30.17
Capital intensive	25.43	27.75	31.40
Technology intensive	27.38	35.71	38.43
Total	100	100	100

Sources: Calculated from National Bureau of Statistics of China (NBS) (various issues), *China Statistical Yearbook*, Beijing: China Statistics Press.

Table 6.4. Ratios of firm indicators of FDI firms over domestic firms in China's manufacturing sector.

Industry	1995	2001	2006
Firm size			
Labour-intensive	2.73	1.25	1.87
Capital-intensive	1.48	0.64	1.11
Technology-intensive	2.24	1.27	2.35
Total	2.00	1.07	1.80
Capital-to-labour ratio			
Labour-intensive	2.56	1.32	0.97
Capital-intensive	2.80	1.94	1.59
Technology-intensive	3.04	1.53	1.07
Total	2.58	1.30	1.00
Labour productivity			
Labour-intensive	2.48	1.38	0.88
Capital-intensive	2.50	2.25	1.52
Technology-intensive	4.17	2.17	1.28
Total	2.46	1.60	1.02

Sources: Calculated from National Bureau of Statistics of China (NBS) (various issues), *China Statistical Yearbook*, Beijing: China Statistics Press.

domestic firms to capture economies of scale and that FDI firms are more technically efficient in their production.

FDI firms on average had a higher capital-to-labour ratio than domestic firms in the same industry in 1995 and 2001. However, during the period 2001–2006, the gap between FDI firms and domestic firms in terms of capital intensity reduced substantially. In particular, for labour-intensive industries, the capital-to-labour ratio of FDI firms fell below that of domestic firms. But in capital-intensive and technology-intensive industries the capital-to-labour ratio of FDI firms remained higher than that of domestic firms, suggesting that FDI firms in capital-intensive and technology-intensive industries possess superior ownership advantages and have more advanced production methods.

In 1995 and 2001, FDI firms on average had higher labour productivity than domestic firms. However, the superiority of FDI firms in labour productivity over domestic firms has been weakening and in 2006, labour productivity in FDI firms was only marginally higher (2 percent) than that in domestic firms. In labour-intensive industries, labour productivity in FDI firms has fallen below that in domestic firms (12 percent lower). However, in capital-intensive and technology-intensive industries, although the gap between FDI firms and domestic firms in labour productivity has narrowed, labour productivity in FDI firms was still 52 percent and 28 percent higher than that in domestic firms, respectively.

Overall, there is evidence that FDI firms have introduced advanced technologies and modern corporate management skills into China's economy. Over the past three decades, advanced equipment and technical projects have been introduced by FDI firms, which have not only filled some technological gaps between China and the outside world, but have also helped in the development of many new products in China.

6.5.2. Has FDI generated spillovers to China's domestic firms?

The above analysis does not explore whether the advanced technologies and modern management skills brought by FDI firms have been transferred to and absorbed by domestic firms. To answer this question, the common practice is to examine the spillover effects of FDI firms on domestic firms' productivity. The general argument is that because of their ownership advantages, FDI firms are expected to generate some positive spillover effects on domestic firms' productivity.

The spillover effects of FDI can occur through three channels. The first channel is through domestic firms' imitation or learning by doing from FDI firms. Because FDI firms' advantages in productivity have the nature of public goods and cannot be fully internalised, domestic firms can copy the production technologies of FDI firms operating in the local market through observation and can learn FDI firms' management skills through hiring workers trained by FDI firms, thus

achieving a rapid increase in their productivity (Rugman, 1986). The second channel is through the increased competition caused by the presence of FDI firms in the domestic market. If the entry of FDI firms leads to more competition in the host country market, domestic firms may be forced to improve their productivity by using their existing resources more efficiently or by searching for new technologies (Blomstrom and Kokko, 1998; Aitken and Harrison, 1999). The third channel is through forward and backward industrial linkages between FDI firms and domestic firms (Javorcik, 2004; Blalock and Gerler, 2008). For example, foreign-invested firms have incentives to make their local suppliers in upstream sectors improve the quality and decrease the price of intermediate goods by transferring technology and sharing with them technical know-how with respect to management and quality control, thus directly increasing domestic firms' productivity in upstream industries.

A growing number of empirical studies have focused on the impact of spillover effects of FDI on domestic firms' productivity.²² In the case of China, earlier studies using data at the industry level generally find a positive correlation between foreign presence and domestic firms' average productivity in the same industry. For example, Liu (2002), using data on 29 manufacturing industries from 1993 to 1998 in Shenzhen Special Economic Zones, finds that FDI has large and positive spillover effects on the productivity of the manufacturing industry. Using panel data for 26 provinces and 4 administrative cities for the period 1995–2000, Cheung and Lin (2004) examine the spillover effects of FDI on the innovation activity of domestic firms and find that inward FDI has significant and positive effects on the number of patent applications filed by domestic firms. However, these studies may overestimate the impact of FDI firms on domestic firms' productivity because of the problems of causality/endogeneity and the productivity aggregation, such that the average productivity at the industry level usually contains the productivity of FDI firms (Javorcik, 2004).

To overcome these econometric problems, some recent studies use firm-level data to examine the impact of FDI on domestic firms' productivity in China. However, their results are inconclusive.

In terms of horizontal spillover effects, Hu, Jefferson, and Qian (2005) use the unbalanced panel data of large and medium-sized enterprises of 29 two-digit manufacturing industries for the period 1995–1999 to examine FDI's horizontal spillover effects and find that FDI does not facilitate the transfer of market-mediated foreign technology. Lin, Liu and Zhang (2008) use a large unbalanced panel dataset covering all state-owned enterprises and private enterprises above the designated size of 71 three-digit manufacturing industries for the period 1998–2005 to examine the impact of FDI on domestic firms' productivity and find that the horizontal spillover effects of FDI firms are generally insignificant. Du, Harrison and Jefferson (2008), using the same panel data but for 60 three-digit manufacturing industries, find similar results.

In terms of different sources of FDI, Abraham, Konings and Sioo-mackers (2006) use unbalanced panel data covering 17,645 plants to examine FDI's horizontal spillover effects on China's domestic firms' productivity. By distinguishing different sources of FDI, they find that FDI originating from Hong Kong, Macao and Taiwan (HMT) tends to generate positive spillover effects whereas that from other countries/regions (non-HMT) generates negative effects. However, Lin, Liu and Zhang (2008) find that HMT-invested firms may generate negative horizontal effects while non-HMT-invested firms tend to bring positive horizontal spillovers and that their impact could cancel out at the aggregate level.

In terms of domestic firms' absorptive ability, Girma, Gong and Gorg (2006) find that FDI spillover effects are more likely to be positive for those state-owned enterprises that export, invest in human capital or research and development, or have prior innovation experience. Liang (2008) finds that FDI spillover effects increase with domestic firms' absorptive ability measured with their knowledge stock, such as firms' previous experience and investment in research and development and human capital.

²² I would like to thank Yu Sheng for providing the following literature reviews.

In terms of backward and forward linkages, Lin, Liu and Zhang (2008) find significant positive backward and forward spillovers at the aggregate level, but that the horizontal spillover effects become negative and insignificant. Du, Harrison and Jefferson (2008) find a modest positive relationship between domestic firms' productivity and FDI presence in the downstream industries, but the horizontal spillover effects are insignificant.

Overall, the many attempts to explore the spillover effects of FDI on China's domestic firms' productivity have produced inconclusive results and further studies are still needed.

6.6. Conclusion

This chapter has analysed the growth trend of FDI inflows into China, evaluated China's performance in attracting FDI inflows, examined the impact of China's success in attracting FDI inflows on other countries, analysed the composition of FDI sources and the regional and sectoral distribution of FDI in China, and examined the major impacts of FDI on China's economy. The following summarises the main findings of the study.

China has been very successful in attracting FDI inflows, particularly after its WTO accession. This success can be attributed to several major factors. Among these, China's increasingly liberalised FDI regime, much improved investment environment both in infrastructure and in legal framework, potentially huge and fast-growing domestic markets, increasing per capita income, relatively well-educated and low-cost labour force, and extensive connections with overseas Chinese business communities in Asia and around the world have played important roles.

China's success in attracting FDI inflows has not been at the expense of other countries. First, although China has been the largest FDI recipient among developing countries and has attracted over US\$880 billion FDI inflows into its economy in the last three decades, based on its location variables, it only received its fair share of global FDI inflows. Second, there is little evidence that China's success in attracting FDI inflows has crowded out FDI inflows into other countries. On

the contrary, there is strong empirical evidence that, on average, FDI inflows into China have been complementary to FDI inflows into other countries, especially to Asian economies and to China's neighbours.

FDI inflows into China have been overwhelmingly dominated by developing economies, particularly by the Asian Newly Industrialising Economies (Hong Kong, Singapore, the Republic of Korea and Taiwan) and the ASEAN-4. The study finds that the domination of these economies in FDI inflows into China could be attributed to their economic development level, the nature and characteristics of their firms, and the high proximity with China. It is expected that China will remain a very important host country for investments from developing economies for a relatively long period.

Obviously, the current composition of FDI sources in China needs to be diversified if it wants to benefit more from FDI. The diversification of FDI sources is not only necessary for China to attract more FDI inflows, but is also very important to attract high quality FDI inflows. China's huge and growing domestic market, fast economic growth and increasing per capita income are very attractive to developed countries' investors, particularly to market-oriented FDI. Therefore, China has great potential to attract FDI from developed countries. However, to realise this potential, it must work hard to fulfil its commitments to the WTO in trade and investment liberalisation, particularly in the areas of strengthening protection of intellectual property rights, opening more economic sectors, especially the services sector, to FDI, and relaxing restrictions on cross-border M&As.

The regional distribution of FDI inflows into China has been very uneven and highly concentrated in the eastern region. The study reveals that this uneven regional distribution of FDI inflows can primarily be attributed to the regional differences in location determinants. The attractiveness of the eastern region is its relatively more open and developed economy, closer connections with the outside world, better infrastructure, higher levels of scientific research and technical innovation, and a higher quality labour force. Compared with the eastern region, although there has been some improvement in the investment environment, the central and western regions still have very low FDI attractiveness in terms of location factors. On a

comparable basis, the attractiveness to FDI of the central and western regions lags 10–15 years behind that of the eastern region. Therefore, the eastern region will continue to attract most of the FDI inflows into China, and the uneven regional distribution of FDI inflows will persist.

The sectoral distribution of FDI in China was characterised by the concentration of FDI in the manufacturing sector. China's huge pool of relatively well-educated and low-cost labour is very attractive to manufacturing FDI, which has made China the processing, manufacturing and assembling "factory" of the world. It is expected that FDI will continue to flow into China's manufacturing sector. FDI inflows into the services sector started to increase sharply in 2006 mainly as a result of China's fulfilment of its commitments to the WTO to open this sector. It is expected that with further and full implementation of these commitments, China will attract more FDI inflows into the services sector. FDI inflows into the primary sector have been very low and have declined since 2001. China's agricultural land tenure system and the traditional small-scale family-based agricultural production pattern have greatly limited the inflows of agricultural FDI. However, we expect that the new land reform policy may have a positive impact on FDI inflows into China's agricultural sector.

The fast growth and high inflows of FDI have greatly contributed to the Chinese economy in terms of capital formation, employment creation and export promotion. As a result, FDI has played an increasingly important role in the Chinese economy. This study reveals that FDI has introduced advanced technologies and modern corporate management skills. However, empirical studies find no clear evidence that FDI has produced strong positive spillover effects on China's domestic firms' productivity.

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Chapter 7

The Changing Patterns of Trade and Investment in East Asia

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7.1. Introduction

The world has been witnessing East Asia's remarkably high economic growth in recent decades despite several setbacks including two crises — one in the late 1990s and the other currently under way. Favorable macroeconomic management, the availability of well-disciplined workers, active investment supported by abundant savings and, most importantly, foreign trade and foreign direct investment (FDI) are among the various factors that have contributed to this rapid economic growth. As shown clearly in Figs. 7.1 and 7.2, the importance of foreign trade and FDI in economic activities in East Asia increased remarkably from the mid-1980s, enabling East Asian economies to obtain technology, management know-how, raw materials and other items, which promoted economic growth, from foreign countries.

This paper examines the changing characteristics of foreign trade in East Asia that are masked by the aggregated picture shown in the figures.⁸ Such an analysis discerns the ways, and also how and why,

⁸This paper draws on Urata (2007).