1. Introduction

Foreign direct investment (FDI) is international investment in the financial or non-financial corporate sectors of the economy in which the non-resident investor purchases 10 per cent or more of the voting power of an incorporated enterprise or has the equivalent ownership in an enterprise operating under another legal structure (IMF, 2004). Allowing FDI into its domestic economy is one of the most dramatic features of China’s move from a planned economy towards a market economy. Since the passing, in late 1979, of the Equity Joint Venture Law which granted legal status to FDI in Chinese territory, China has gradually liberalized its FDI regime, and an institutional framework has been developed to regulate and facilitate such investments. The liberalization of the FDI regime together with the improved investment environment has greatly increased the confidence of foreign investors to invest in China. Consequently, FDI inflows into China increased rapidly after 1979, particularly during the early 1990s and after China’s entry into the World Trade Organization (WTO) in 2001.

The total accumulative amount of FDI inflows at 2000 US dollar prices rose from the initial US$0.22 billion in 1979 to reach US$934 billion in 2009, at an annual growth rate of 32.11 per cent. As a result, since 1993, China has become the largest FDI recipient in the developing world. Over the course of the past three decades, from 1979 to 2009, FDI became well established in China’s economy, and the activities of multinational enterprises (MNEs) came to assume increasing importance in capital formation, labour training, technology transfer, international trade, and in accelerating the transition of China from a planned economy to a market economy. As a result, FDI has increasingly integrated the Chinese economy into the world economy.

WHY STUDY FDI IN CHINA?

Owing to its fast growth and huge amount of inflows, FDI in China has received increasing attention both within China and abroad. There are several key reasons to study FDI in China.

First, China is the world’s largest developing country and one of its
fastest growing economies, with the annual real growth rate of gross
domestic product (GDP) averaging around 10 per cent for the past three
decades. China’s participation and growing role in the world economy,
particularly after China’s entry into the WTO, calls for a careful study
of the pattern and process of China’s internationalization. Undoubtedly,
FDI in China’s economy will play a very important and increasing role
in the process of China’s integration with the world economy. Therefore,
studying FDI in China has a strategic significance not only for China but
also for the whole world economy.

Second, China has a particular political and economic environment. It
is moving from a planned economy towards a market economy. Its expe-
rience with FDI is thus of relevance to many other developing countries,
especially to the former socialist countries of Eastern Europe, not only
because of the magnitude of FDI inflows it has attracted but also because
the essential elements of the policy environment are replicated there.

Third, China is the largest FDI recipient in the developing world. As
a result, China has increasingly become more significant in influencing
not only the flows of international FDI, but also the division of labour
and specialization in global production. Therefore, studies of FDI cannot
afford to ignore China.

Fourth, the fast growth rate of FDI inflows into China during the past
three decades has caused increasing concern in other developing countries
about their own efforts in attracting FDI inflows. Has the fast growth
of FDI inflows into China caused a diversion of FDI away from other
developing countries? One cannot answer this question without a careful
study of the location determinants affecting FDI inflows and the relative
performance of China in attracting FDI inflows as compared with other
developing countries.

Fifth, one of the prominent features of FDI in China is the overwhelm-
ing dominance of investments from developing source countries and
economies, particularly from the overseas Chinese investors. The exist-
ing theories of FDI have been mainly drawn from studies of developed
source countries. Little work has been done on the investment behaviour
and characteristics of developing source countries. Fortunately, FDI in
China provides a valuable opportunity for economists not only to test the
adequacy of existing theories of FDI but also to compare the particular
characteristics of developing source countries with developed source coun-
tries in their investment behaviour.

Sixth, it is hypothesized that because FDI firms possess firm-specific
ownership advantages, such as advanced technology and know-how,
mature marketing and managerial skills, well-organized international
distribution channels, coordinated relationships with suppliers and good
Introduction

reputation, FDI firms can compete locally with more informed domestic firms. Since both FDI firms and domestic firms can imitate each other in the same market, domestic firms are usually expected to increase their productivity and competitiveness in international markets. This positive impact of foreign presence on domestic firms’ productivity and exports is referred to as ‘spillovers of FDI’, which is an important channel through which developing countries can close the technology gap with developed countries. China, as the largest developing country with a huge amount of FDI inflows, provides a valuable case for the empirical study of spillovers of FDI on domestic firms’ productivity and exports of developing countries.

Finally, there is a considerable and a growing number of studies on FDI in China. These studies can be broadly classified into three groups. The first has mainly focused on China’s FDI policies, legal and institutional framework, the impacts of trade and investment liberalization of China on FDI inflows and the characteristics of FDI in China. This includes, for example: Chen (1982), Chu (1987), Harrold and Lall (1993), Liu et al. (1993), Shirk (1994), Wei (1994), Chen (1996, 1997a, 2002, 2007, 2010a), McKibben and Wilcoxen (1998), Branstetter and Feenstra (1999), Li and Li (1999), Walmsley and Hertel (2001), Breslin (2003), Huang (2003a), Xiao (2004), Blanchard (2007), Liu (2008), Oxelheim and Ghauri (2008), Cole et al. (2009), Lo and Tian (2009), Wilson (2009) and Huang (2010).


Although these studies have made considerable contributions to the study of FDI in China, there still is a lack of, and therefore a need for, a systematic and comprehensive theoretical and empirical study covering the aspects of policy and the legal system governing FDI, location determinants of FDI, sources of FDI and the economic impacts of FDI in China. It is aimed in this study to fill this gap.

FDI INFLOWS INTO CHINA BETWEEN 1979 AND 2009

The Growth of FDI Inflows into China

During the past three decades, China has attracted a large amount of FDI inflows. As shown in Figure 1.1, the growth of FDI inflows into China from 1979 to 2009 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 2009.

In the initial stage of the experimental phase, following the establishment of the four Special Economic Zones (SEZs) in Guangdong and Fujian provinces, accompanied by the special incentive policies for FDI.

**Figure 1.1 FDI inflows into China (current US$)**

*Note:* The data do not include FDI inflows into the financial sector.

offered by the Chinese government in these SEZs, FDI inflows into China were highly concentrated in Guangdong and Fujian provinces, and particularly in the four SEZs. For example, Guangdong and Fujian provinces absorbed more than 70 per cent of total FDI inflows in 1983. However, since the Chinese government was very cautious about introducing FDI into its domestic economy, foreign investors were also cautious about making investments in China in the initial stage of China’s opening up to the outside world. During this period, therefore, China’s performance in attracting FDI inflows was not very impressive. The inflows of FDI were only US$0.11 billion in 1979 and US$0.64 billion in 1983, averaging US$0.35 billion annually.

In 1984, Hainan Island and 14 coastal cities across ten provinces were opened to FDI. As in the SEZs, a series of special economic policies were introduced in these open coastal cities. Consequently, in 1984 the inflows of FDI into China doubled the amount of those in 1983, reaching US$1.26 billion, indicating a new stage in attracting FDI inflows into China. The momentum of FDI inflows into China continued from 1984 to 1988. However, in 1989, mainly due to the Tiananmen event, the growth rate of FDI inflows into China fell sharply from 38 per cent in 1988 to 6 per cent in 1989. The downturn continued in 1990, until it recovered in 1991. During the period from 1984 to 1991, the Chinese government made a significant effort to attract FDI inflows. This included opening more and more areas and regions to FDI, such as the Yangzi River Delta, the Pearl River Delta, the Min Nan Delta, the Shanghai Pudong New Development Zone and the entire coastal areas, and introducing a series of laws and regulations to encourage FDI inflows. As a result, FDI inflows into China continued to increase in absolute terms during the whole period from 1984 to 1991.

The second phase began in 1992, when Deng Xiaoping made a tour to China’s southern coastal economically opened areas and SEZs, and made a speech, which subsequently became famous. His aim was first to push China’s overall economic reform process forward, and second to emphasize China’s commitment to the open door policy and market-oriented economic reform in order to increase the confidence of foreign investors to invest in China. His speech explicitly declared his support for the successful economic development assisted by FDI in the economically opened areas and SEZs, and expressed a desire to see the pace of liberalization quickened. Deng Xiaoping’s tour, which turned out to be a landmark, set the scene for China’s move away from the uneven regional priority towards nationwide implementation of open policies for FDI. The Chinese government then adopted and implemented a series of new policies and regulations to encourage FDI inflows into China. The results were astounding. In 1992 the inflows of FDI into China reached US$11.01
Foreign direct investment in China

billion, doubling the figure of 1991. In 1993 the inflows of FDI again doubled the figure of 1992, reaching US$27.52 billion. The high growth of FDI inflows continued during 1994 to 1996.

Foreign direct investment inflows slowed down after 1997 and declined in 1999 and 2000, followed by a moderate recovery in 2001. The slow-down from 1997 to 2000 could be explained by several factors. First, there was a slow-down in transfers of labour-intensive activities from neighbouring Asian economies. In addition, the East Asian financial crisis weakened substantially the outward investment abilities of East and South-East Asian economies. As a result, FDI flows into China from East and South-East Asia declined substantially since 1997. Second, informal relationships and corruption still hinder many business transactions by foreigners. In addition, inefficient state-owned enterprises (SOEs) continue to dominate many key sectors of economy, especially the service sector. Third, there are still restrictions on FDI, such as on ownership shares, modes of entry, business operations, and regional and sectoral restrictions.

The third phase began in 2002 after China’s entry into the WTO in 2001. China’s accession to the WTO came at a critical time, when the country was facing difficulties sustaining a high level of FDI inflows. After China’s accession to the WTO, with the implementation of its commitments and broader and deeper liberalization in trade and investment, FDI inflows presented an increasing trend. Foreign direct investment inflows increased from US$46.88 billion in 2001 to US$92.40 billion in 2008. However, because of the global financial and economic crisis, FDI inflows into China declined to US$90.03 billion in 2009.

There has long been an issue of ‘round-tripping’ of FDI in the case of China. Round-tripping involves the circular flow of capital out of China and the subsequent reinvestment of this ‘foreign’ capital in China for the purpose of benefiting from fiscal entitlements accorded to foreign investors. Because the funds originate in the host country itself, round-tripping inflates actual FDI inflows. According to the UNCTAD (2007), a significant share of FDI inflows into China is round-tripping, mainly via Hong Kong and more recently and increasingly via some tax-haven islands – Virgin Islands, Cayman Islands and Samoan Islands. Some estimates suggest that round-tripping inward FDI accounted for 25 per cent of China’s FDI inflows in 1992 (Harrold and Lall, 1993) and accounted for 40 per cent of China’s total FDI inflows during 1994 to 2001 (Xiao, 2004).

Round-tripping is driven by a number of incentives. In the case of China, preferential treatments offered for FDI are one of the main incentives for round-tripping FDI. Since the beginning of economic reform, the Chinese government has used tax incentives, tariff concessions and various preferential treatments intensively and selectively to attract FDI...
Introduction

These preferential treatments offered for FDI are the primary incentives for domestic firms to do round-tripping FDI.

Since China's accession to the WTO, China has gradually introduced national treatment of FDI firms. In March 2007 China passed the new corporate income tax law, unifying the corporate income tax rates for foreign and domestic enterprises at 25 per cent. The unification of the corporate income tax rate and the elimination of preferential treatment of FDI firms will reduce the incentives for FDI round-tripping.

China’s FDI Inflows in Global Perspective

Since the 1980s, world FDI inflows have experienced two massive waves of ups and downs. As shown in Figure 1.2, the first large increase of world FDI inflows started in the mid-1990s. World FDI inflows increased from US$331 billion in 1995 to US$1393 billion in 2000. Following a sharp decline in 2001 to 2003, world FDI inflows increased again and experienced a period of high growth during 2003 to 2007, reaching a historical peak of US$2500 billion in 2007.

Note: Data for China include FDI inflows into the financial sector after 2005.


Figure 1.2 China’s FDI inflows in global perspective (current US$)
Foreign direct investment in China

record of US$2100 billion in 2007. However, the growing trend of world FDI inflows came to an end in 2008. World FDI inflows dropped sharply to US$1771 billion, declining by 15.71 per cent in 2008, and further dropped to US$1114 billion in 2009, declining by 37.29 per cent, caused by the global financial crisis, which was in turn triggered by the USA’s sub-prime crisis which began in summer 2007 and led to a rapid deterioration of the global investment environment. However, as compared to the large fluctuations in world FDI inflows, FDI inflows into China have been relatively stable, presenting a steady growing trend with minor fluctuations.

What has been the position of China in world FDI inflows? As shown in Figure 1.2, during the 1980s China’s share in FDI inflows in the world and in developing countries was around 2 per cent and 11 per cent respectively, with minor annual fluctuations. However, in the 1990s China’s share in FDI inflows in the world and in developing countries increased dramatically, reaching 7.5 per cent and 23 per cent respectively. In the 2000s China’s share in FDI inflows in the world and in developing countries declined slightly due to the massive increase in world FDI inflows during the period of 2004 to 2007. However, during the period from 2000 to 2009, China still accounted for 6 per cent of total world FDI inflows and 17 per cent of total FDI inflows into developing countries.

The Regional Distribution of FDI within China

Although at the national level the aggregate FDI inflows into China have grown steadily over the past 30 years, the distribution of inward FDI among China’s regions and provinces has been very uneven. By the end of 2008, as shown in Figure 1.3, FDI in China was overwhelmingly concentrated in the eastern region, which accounted for 86.26 per cent of the total accumulative FDI inflows, while the central region and western region accounted for only 9.16 per cent and 4.58 per cent of the total respectively.

As a single province Guangdong has been the largest FDI recipient in China among all the provinces. Its share of accumulative FDI inflows from 1983 to 2005 was over a quarter of the national total (see Table 1.1), followed by Jiangsu (14.41 per cent), Shanghai (8.94 per cent), Shandong (8.44 per cent), Fujian (7.99 per cent), Liaoning (5.06 per cent), Zhejiang (5.01 per cent), Beijing (4.25 per cent) and Tianjin (3.62 per cent).

Who are the Major Investors in China?

Since 1979 more than 170 countries and economies have invested in China. However, of interest is to determine who are the major investors. By the end of 2008, as shown in Table 1.2, FDI in China was overwhelmingly...
Introduction

dominated by developing countries and economies, which accounted for 75.38 per cent of the total accumulative FDI inflows, while developed countries accounted for only 24.62 per cent of the total. Among the developing countries and economies, as a group the Asian newly industrializing economies (NIEs) has been the largest investor, accounting for 56.64 per cent of the total. Within the Asian NIEs, Hong Kong has held the dominant position, accounting for 41.75 per cent of the total, followed by Taiwan (5.76 per cent), South Korea (4.74 per cent) and Singapore (4.39 per cent). The four Association of South-East Asian Nations (ASEAN) economies accounted for 1.48 per cent of the total.

One notable feature is the large shares held by the tax-haven economies. Foreign direct investment inflows into China from the tax-haven economies increased dramatically in the 1990s and particularly in the 2000s. As a result, their combined shares in total FDI inflows increased to 13.64 per cent by the end of 2008. The Virgin Islands took the dominant position, accounting for 9.78 per cent of the total, followed by the Cayman Islands (1.78 per cent) and the Samoan Islands (1.30 per cent).

Among the developed countries, Japan and the USA are the most important investors in China, accounting for 7.78 per cent and 7.18 per cent of the total, while the combined share of the European Union (15) was 7.19 per cent. Apart from the UK, Germany, the Netherlands and France,
Foreign direct investment in China

Table 1.1 Accumulative FDI inflows in China by region and selected provinces, 1983–2005 (2000 US$)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern Region</td>
<td>535,940</td>
<td>86.26</td>
</tr>
<tr>
<td>Guangdong</td>
<td>157,037</td>
<td>25.28</td>
</tr>
<tr>
<td>Jiangsu</td>
<td>89,519</td>
<td>14.41</td>
</tr>
<tr>
<td>Shanghai</td>
<td>55,545</td>
<td>8.94</td>
</tr>
<tr>
<td>Shandong</td>
<td>52,428</td>
<td>8.44</td>
</tr>
<tr>
<td>Fujian</td>
<td>49,617</td>
<td>7.99</td>
</tr>
<tr>
<td>Liaoning</td>
<td>31,438</td>
<td>5.06</td>
</tr>
<tr>
<td>Zhejiang</td>
<td>31,589</td>
<td>5.01</td>
</tr>
<tr>
<td>Beijing</td>
<td>26,380</td>
<td>4.25</td>
</tr>
<tr>
<td>Tianjin</td>
<td>22,870</td>
<td>3.62</td>
</tr>
<tr>
<td>Central Region</td>
<td>56,902</td>
<td>9.16</td>
</tr>
<tr>
<td>Hubei</td>
<td>13,120</td>
<td>2.11</td>
</tr>
<tr>
<td>Hunan</td>
<td>10,551</td>
<td>1.70</td>
</tr>
<tr>
<td>Jiangxi</td>
<td>8,634</td>
<td>1.39</td>
</tr>
<tr>
<td>Henan</td>
<td>6,807</td>
<td>1.10</td>
</tr>
<tr>
<td>Western Region</td>
<td>28,462</td>
<td>4.58</td>
</tr>
<tr>
<td>Guangxi</td>
<td>8,748</td>
<td>1.41</td>
</tr>
<tr>
<td>Sichuan</td>
<td>5,844</td>
<td>0.94</td>
</tr>
<tr>
<td>Shaanxi</td>
<td>4,639</td>
<td>0.75</td>
</tr>
<tr>
<td>Chongqing</td>
<td>3,744</td>
<td>0.60</td>
</tr>
<tr>
<td>Provincial total</td>
<td>612,304</td>
<td>100.00</td>
</tr>
</tbody>
</table>


whose shares are 1.89 per cent, 1.76 per cent, 1.06 per cent and 1.03 per cent respectively, no other individual developed country has contributed more than 1 per cent of the total accumulative FDI inflows into China.

Sectoral Distribution of FDI in China

By the end of 2008, the sectoral distribution of FDI in China was characterized by a high concentration in the manufacturing sector. As shown in Figure 1.4, the manufacturing sector attracted 62.72 per cent, the service sector attracted 34.74 per cent, while the primary sector attracted only 2.54 per cent of the total accumulative FDI inflows into China during the period from 1997 to 2008.9

How important are FDI firms in China’s manufacturing sector? As
Introduction

Table 1.2  Accumulative FDI inflows into China by developing and developed countries and economies, 1983–2008 (2000 US$)

<table>
<thead>
<tr>
<th>1983–2008</th>
<th>(US$ million)</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developing countries and economies</td>
<td>620 925</td>
<td>75.38</td>
</tr>
<tr>
<td>NIEs</td>
<td>466 542</td>
<td>56.64</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>343 888</td>
<td>41.75</td>
</tr>
<tr>
<td>Taiwan</td>
<td>47 423</td>
<td>5.76</td>
</tr>
<tr>
<td>South Korea</td>
<td>39 043</td>
<td>4.74</td>
</tr>
<tr>
<td>Singapore</td>
<td>36 188</td>
<td>4.39</td>
</tr>
<tr>
<td>ASEAN (4)</td>
<td>12 225</td>
<td>1.48</td>
</tr>
<tr>
<td>Tax-haven economies</td>
<td>112 372</td>
<td>13.64</td>
</tr>
<tr>
<td>Other developing countries</td>
<td>29 787</td>
<td>3.62</td>
</tr>
<tr>
<td>Developed countries</td>
<td>202 814</td>
<td>24.62</td>
</tr>
<tr>
<td>Japan</td>
<td>64 114</td>
<td>7.78</td>
</tr>
<tr>
<td>USA</td>
<td>59 172</td>
<td>7.18</td>
</tr>
<tr>
<td>EU (15)</td>
<td>59 262</td>
<td>7.19</td>
</tr>
<tr>
<td>UK</td>
<td>15 561</td>
<td>1.89</td>
</tr>
<tr>
<td>Germany</td>
<td>14 480</td>
<td>1.76</td>
</tr>
<tr>
<td>Netherlands</td>
<td>8 715</td>
<td>1.06</td>
</tr>
<tr>
<td>France</td>
<td>8 474</td>
<td>1.03</td>
</tr>
<tr>
<td>Other developed countries</td>
<td>20 266</td>
<td>2.46</td>
</tr>
<tr>
<td>Total</td>
<td>823 739</td>
<td>100.00</td>
</tr>
</tbody>
</table>


shown in Table 1.3, in terms of total assets, the share of FDI firms in the manufacturing sector has increased from 18.93 per cent in 1995 to 32.10 per cent in 2008. In other words, one-third of the total assets of manufacturing sector were held by FDI firms in 2008. This is significant, especially when we take into account the large aggregate scale and overall fast growth rate of China’s manufacturing sector in the last 30 years.

Among the three industry groups of manufacturing, FDI firms in the technology-intensive sector gained more share, and therefore more importance, than FDI firms in the labour-intensive sector and the capital-intensive sector in manufacturing. By 2008, the share of FDI firms in the technology-intensive sector reached 42.15 per cent, increasing 20.11 percentage points compared with that in 1995. The share of FDI firms in the labour-intensive sector increased to 33.79 per cent in 2008, rising by
Foreign direct investment in China

The share of FDI firms in the capital-intensive sector is still relatively low compared with those in the technology-intensive sector and the labour-intensive sector. However, it increased to 24.01 per cent in 2008, rising by 13.26 percentage points over that in 1995.

Since the manufacturing sector is the main recipient of FDI inflows, its industrial distribution has special significance. In the early stage of FDI inflows into manufacturing, FDI firms were overwhelmingly concentrated in the labour-intensive sector. By the end of 1995, as shown in Table 1.4, in terms of the total assets of FDI firms in manufacturing, 50.91 per cent

Note: The calculation is based on 2000 US$.  


Figure 1.4 Sectoral distribution of accumulative FDI inflows in China, 1997–2008 (total = 100)

Table 1.3 Shares of FDI firms in manufacturing by total assets (%)

<table>
<thead>
<tr>
<th>Sector</th>
<th>1995</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labour intensive</td>
<td>25.19</td>
<td>33.79</td>
</tr>
<tr>
<td>Capital intensive</td>
<td>10.75</td>
<td>24.01</td>
</tr>
<tr>
<td>Technology intensive</td>
<td>22.04</td>
<td>42.15</td>
</tr>
<tr>
<td>Total</td>
<td>18.93</td>
<td>32.10</td>
</tr>
</tbody>
</table>

were in the labour-intensive sector while only 21.71 per cent and 27.38 per cent were in the capital-intensive sector and the technology-intensive sector respectively.

With the fast economic growth, high level of capital accumulation, large improvement in human capital development and technology progress, China’s comparative advantage has changed rapidly. Though China still has strong comparative advantage in labour-intensive activities owing to its huge population and abundant labour supply, China has greatly increased its comparative advantages in capital-intensive and technology-intensive activities. As a result, FDI flows into Chinese manufacturing have gradually shifted from a high level of concentration in the labour-intensive sector towards increasing investment in the capital-intensive sector and the technology-intensive sector. By the end of 2008, as shown in Table 1.4, the investment structure of FDI firms in Chinese manufacturing has changed fundamentally. The technology-intensive sector has become the most important and largest sector receiving FDI, and the capital-intensive sector has also surpassed the labour-intensive sector receiving FDI. In terms of the total assets of FDI firms, the shares of the technology-intensive sector and the capital-intensive sector have increased to 37.61 per cent and 31.28 per cent respectively, while the share of the labour-intensive sector has fallen to 31.11 per cent.

**The Contribution of FDI to China’s Economy**

In the FDI literature, FDI is believed to have played some major roles in the development process of a host country’s economy, via capital formation, the creation of employment opportunities, promotion of international trade, technology transfer and spillovers to the domestic economy.
Foreign direct investment in China

Over the past three decades, China has attracted a huge amount of FDI inflows, and FDI firms have made some important impacts on China’s economy.

Capital formation
How important have FDI inflows been in China’s domestic capital formation? To evaluate the contribution of FDI to China’s domestic capital formation, we use the share of FDI in China’s total investment in fixed assets. As shown in Figure 1.5, the share reached the highest level of 9 percent in 1996. Since then it fell to around 3.5 percent or less after 2000. This suggests that FDI made an important contribution to China’s domestic capital formation during the 1990s. However, since 2000, the role of FDI in China’s domestic capital formation has been declining. Nevertheless, for a large and fast-growing economy like China – average annual GDP growth around 10 percent for the past three decades – FDI has provided an important supplementary source of finance to its domestic capital formation.

Employment creation
In the developing countries, where capital is relatively scarce but labour is abundant, one of the most prominent contributions of FDI to the local

Figure 1.5  FDI inflows as a percentage of total investment in fixed assets in China, 1994–2008
Introduction

15

**economy is the creation of employment opportunities.** Figure 1.6 shows FDI firms’ employment in the manufacturing sector during 1995 to 2008 and indicates that FDI firms’ manufacturing employment increased significantly after 2001. While they employed 6.05 million workers or 8.9 per cent of China’s manufacturing employment in 1995, the figures have increased to 25.45 million workers or 32.97 per cent in 2008. In other words, by the end of 2008, FDI firms employed one-third of China’s manufacturing labour force.

**Export promotion**

There is considerable evidence that FDI contributes to the growth of host countries’ international trade. In the case of China, the most prominent contribution of FDI perhaps is expanding China’s exports. Figure 1.7 presents the export performance of FDI firms from 1980 to 2008. FDI firms’ exports rose from US$0.01 billion in 1980 to US$119 billion in 2000 and to US$791 billion in 2008. As a result, the importance of FDI firms in China’s exports has increased from only 0.05 per cent in 1980 to 47.93 per cent in 2000 and further to 58.30 per cent in 2005, before falling slightly to 55.25 per cent in 2008. One reason for this is that China’s FDI policy has been deliberately biased towards export-oriented FDI. As a result, FDI firms have rapidly become a major exporting group.

**Figure 1.6  FDI firms’ manufacturing employment in China, 1995–2008**

THE MAIN ISSUES TO BE STUDIED

The above section has outlined the key features of FDI in China. They are characterized by fast growth and a huge amount of inflows, uneven regional distribution, overwhelming dominance by developing source countries and economies, concentration in the manufacturing sector and significant contributions to China’s economy. What are the underlying causes for these special features of FDI in China? This study aims to answer these questions by focusing on analysing three main issues. These are the location determinants, the investor differences and the economic impacts of FDI on China’s economy. For each of these issues, we analyse some specific questions.

Before addressing each of the main issues to be studied, we first clarify the use of FDI data in this study. In China’s official statistics, there are two types of FDI data. One is the contracted FDI data based on the approvals of FDI projects, and the other is the realized FDI data based on the actual investments of FDI projects. The contracted FDI data are a relatively poor indicator when we use them to analyse FDI inflows into China, since some of the approved FDI projects failed to be implemented and some investments are less than specified in the contracts. To avoid


Figure 1.7 FDI firms’ export performance, 1980–2008 (current US$)
such a problem and to increase the credibility of our analysis, all FDI data used in the analysis of this study are actual realized FDI data. In addition, China did not publish the data for FDI inflows into its financial sector until 2005. To keep data consistency in the analysis, the data for FDI inflows into China used in this study are FDI inflows into non-financial sectors unless otherwise stated.

**Location Determinants**

The first issue is related to the causes of FDI. Because this study is focused on inward FDI into China, our interest mainly lies in examining the location determinants of FDI. In this study we analyse this from two different levels.

First, in order to compare the relative performance of China in attracting FDI inflows with that of other developing countries and to investigate the impact of FDI inflows into China on FDI inflows into other developing countries, we examine and test the location factors determining FDI inflows into developing countries. At this level of analysis, we ask: what location factors determine the country distribution of FDI inflows from all source countries into developing host countries; what is the relative performance of China in attracting FDI inflow as compared with other developing countries; and what is the impact of FDI inflows into China on FDI inflows into other developing countries?

Second, the provincial distribution of FDI inflows into China has been very uneven. This may reflect the regional variations in economic reform policies introduced by the central government and the regional differences in attracting FDI inflows caused by the local investment environment. The latter includes the differences in economic and social development levels, in the quality and costs of labour, and in natural resource endowments. It is, therefore, necessary to analyse and test the location determinants affecting the provincial distribution of FDI inflows. At this level of analysis, our interest lies in answering the questions: what location factors determine the provincial distribution of FDI inflows across the provinces within China and why have FDI inflows been mainly concentrated in the eastern coastal region?

**Investor Differences**

One of the prominent features of FDI in China in terms of sources is the overwhelming dominance of the developing source countries and economies, particularly the overseas Chinese investors from Hong Kong and Taiwan. Constrained by their own levels of innovatory capability,
productive technology and overall economic development, the ownership advantages they possess should be different compared with those of developed source countries. As a result, one needs to ask the questions why FDI in China has been dominated by the developing countries and economies, and whether the developing source countries and economies behave differently from the developed source countries. Therefore, in this study we examine the questions: are the developing and developed source countries different in their investment behaviour in terms of investment intensity, patterns of investment, type of entry, market orientation, factor intensity and labour productivity? If they are, then what are the general characteristics of investments by the developing source countries and economies compared with the developed source countries, and what factors explain these differences?

Economic Impacts

What are the impacts of FDI on China’s economy? Foreign direct investment brings into a host country a package of capital and other financial resources; advanced technology and know-how, modern enterprise management and mature marketing skills, well-organized international distribution channels, coordinated relationships with suppliers and clients, good reputation and other intangible assets. Therefore, it will have both direct and indirect impacts on a host country’s economy. On the one hand, FDI can directly contribute to China’s domestic capital formation, creation of employment and expansion of exports, thus increasing China’s economic growth. On the other hand, FDI can also have indirect impacts on China’s domestic firms’ productivity and exports through either horizontal or vertical spillovers. It is expected that through the knowledge spillovers such as learning by doing (demonstration effects), research and development (R&D), human resource movement, training courses, technical assistance and exposure to fierce competition, FDI improves productivity and increases exports of local firms of host countries. Therefore, this study seeks to investigate empirically the following issues: what are the impacts, with a particular emphasis on the spillover effects, of FDI on China’s regional economic growth? What are the technology spillovers of FDI on China’s domestic firms’ productivity? What are the export spillovers of FDI on China’s domestic firms’ exports?

THE THEORETICAL FRAMEWORK

Foreign direct investment is formally defined as ownership of assets by foreign residents for purposes of controlling the use of those assets
(Graham and Krugman, 1991). To analyse and understand FDI, a theoretical framework is necessary. Therefore, in this section we first briefly review some of the leading theories used in explaining FDI, and then discuss the implications of the existing literature for this study.

The Theory of FDI

There are many theories seeking to explain FDI, and the most recent and comprehensive surveys can be found in Dunning (1993), Dunning and Lundan (2008) and Caves (1996, 2007). Among these theories, however, the most influential are those based on industrial organization explanations.

The industrial organization explanations of FDI originate from Hymer’s celebrated 1960 doctoral thesis (published in 1976). In his thesis, Hymer first distinguished the difference between portfolio investment and direct investment, and then argued that the capital-arbitrage hypothesis explaining international capital movements was inconsistent with several obvious patterns in the behaviour of MNEs and was unable to explain the causes of FDI. In particular, he gave three reasons for his arguments. First, Hymer argued that once risk and uncertainty, volatile exchange rates and the costs of acquiring information and making transactions were incorporated into portfolio capital-arbitrage theory, many of its predictions, for example, with respect to the cross-border movements of money capital in response to interest rate changes, became invalid. This was because such market imperfections altered the behavioural parameters affecting the conduct and performance of firms and, in particular, their strategy in serving foreign markets. Second, Hymer asserted that FDI involved the transfer of a package of resources including not only capital but also technology, management skills and entrepreneurship. As a result, MNEs were motivated to produce abroad by the expectation of earning an economic rent on the totality of their resources. Third, unlike portfolio investment, the most fundamental characteristic of FDI was that it involved no change in the ownership of resources or rights transferred.

Hymer not only swept aside the capital-arbitrage explanation for FDI but also laid the foundation for a microeconomic explanation of FDI by pointing out that FDI is not randomly distributed among industries, and competitive conditions, in particular those in product markets, clearly influence FDI. Applying industrial organization theory, Hymer pointed out that if foreign MNEs are identical to domestic firms, they will not find it profitable to enter the domestic market, since there are added costs of doing business in another country, including communications and transport costs, higher costs of stationing personnel abroad, language barriers,
Foreign direct investment in China

customs, and being outside the local business and government networks. Therefore, Hymer argued that for MNEs to conduct foreign production, they must possess some kind of firm-specific ownership advantages, such as superior technology or lower costs due to scale economies, which is sufficient to outweigh the disadvantages they face in competing with indigenous firms in the country of production. The ownership advantages may range from the possession of superior technology to ownership of a brand name. Whether the firm will exploit such advantages through licensing or FDI depends on the nature of the advantages and the degree of imperfections in the markets for the advantages it possesses. The higher the imperfections, the greater will be the tendency to undertake FDI and control operations rather than engage in arm’s-length transactions.


Another earlier influential approach in explaining FDI was that of Vernon’s product cycle hypothesis (1966). The product cycle hypothesis states that, based on the comparative advantage arising from the pattern of factor endowments, initially a product was invented in the home country with comparative advantage in technology and innovatory capabilities, and produced for the home market in the home country near to both its innovatory activities and markets. At a latter stage of the product cycle, because of a favourable combination of innovation and production advantages offered by the home country, the product was exported to other countries most similar to the home country in demand patterns and supply capabilities. Gradually, as the product becomes standardized or mature and labour becomes a more important ingredient of production costs, the attractions of locating value-adding activities in a foreign, rather than in a domestic, location increase. Eventually, if conditions in the host country are right, the subsidiary could replace exports from the parent company or even export back to the home country. The product cycle hypothesis was the first dynamic interpretation of the determinants of, and relationship between, international trade and foreign production.

In the mid-1970s some economists, for example Buckley and Casson (1976), Lundgren (1977) and Swedenborg (1979), proposed the application of internalization theory to explain the growth of MNEs based on a
theory of transactions costs. As Buckley and Casson observed, for MNEs to serve foreign markets through direct investment rather than alternative modes of doing business, such as exporting or licensing, there must have been some internalization advantages for the firm to do so. That is, there must be economies associated with a firm exploiting a market opportunity through internal operations rather than through external arm’s-length transactions such as the sale of rights to the firm’s intangible assets to other firms. These economies might be associated with costs (including opportunity costs) of contract enforcement or maintenance of quality or other standards. Buckley and Casson noted that, where these costs are absent, firms very often do use licensing or franchising as a means of serving international markets. For example, Coca-Cola franchises the right to market its products in many nations where contract enforcement is not a problem, but the firm directly controls operations in nations where enforcement is a problem.

The internalization approach incorporates the idea of market imperfections identified by Hymer and extends it to provide an explanation for the existence of MNEs across national boundaries. In general, it argues that, faced with imperfections in the markets for intangible assets and imperfect information, firms tend to internalize operations to minimize costs of transactions and increase productive efficiency. While this approach emphasizes the importance of transaction costs resulting from market imperfections, both Buckley (1987) and Casson (1987) have acknowledged the need to integrate location-specific variables with internalization variables to explain the MNE activities.

One organizing framework was proposed by Dunning (1977, 1980, 1981a, 1981b, 1986, 1988a, 1988b, 1993), who synthesized the main elements of various explanations of FDI, and suggested that three conditions all need to be present for a firm to have a strong motive to undertake direct investment. This has become known as the ‘OLI’ framework: *ownership advantage*, *location advantage* and *internalization advantage*.

A firm’s *ownership advantage* could be 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, organizational 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. Although ownership advantages are firm specific, they are closely related to the technological and innovative capabilities and the economic development levels of source countries.

In addition, the foreign market must offer a *location advantage* that
makes it profitable to produce the product in the foreign country rather than simply produce it at home and export it to the foreign market. Location advantages include not only resource endowments, but also economic and social factors, such as market size and structure, prospects for market growth and the degree of development, the cultural, legal, political and institutional environment, and government legislation and policies.

Finally, the multinational enterprise must have an *internalization advantage*. If a company has a proprietary product or production process and if it is advantageous to produce the product abroad rather than export it, it is still not obvious that the company should set up a foreign subsidiary. Another alternative is to license a foreign firm to produce the product or use the production process. However, because of market failures in the transaction of such intangible assets, the product or process is exploited internally within the firm rather than at arm’s length through markets. This is referred to as an internalization advantage.

The generalized predictions of the OLI framework are straightforward. At any given moment in time, the more a country’s enterprises – relative to those of other countries – possess ownership advantages, the greater the incentive they have to internalize rather than externalize their use, the more they find it in their interest to exploit them from a foreign location, then the more they are likely to engage in foreign production. The framework also can be expressed in a dynamic form. Changes in the outward or inward direct investment position of a particular country can be explained in terms of changes in the ownership advantages of its enterprises relative to those of other nations; changes in its location advantages relative to those of other countries; and changes in the extent to which firms perceive that these assets are best organized internally rather than by the market (Dunning, 1993).

**The Main Implications of Existing Theory for the Present Study**

In the above discussion we have reviewed the leading theories of FDI. From Hymer’s seminal work to Dunning’s OLI paradigm, scholars have made great contributions to the theory of FDI. Among them, Dunning’s OLI framework has been the most ambitious and comprehensive explanation of FDI. It is a very useful theoretical framework for this study.

What are the main implications of the existing theories of FDI for this study? According to Dunning’s eclectic OLI paradigm, which synthesizes the main elements of the various explanations for FDI, the determinants of FDI can be classified into two groups: supply-side factors and demand-side factors. The supply-side factors are the ownership advantages and
the internalization advantages, and the demand-side factors are location advantages.

In terms of the supply-side factors, the investment potential and investment patterns of enterprises are determined by the nature and extent of their possession of ownership advantages and the incentive to internalize the use of their ownership advantages. However, the creation and development of the ownership advantages of enterprises are closely related to their home countries’ technological and innovative capabilities and the overall economic development levels. In other words, differences in their technological and innovative capabilities and in their levels of economic development will lead to differences in the ownership advantages of the enterprises of different countries. In general, enterprises from developed source countries with high technological and innovative capabilities and high overall economic development levels will possess not only more ownership advantages in general but also more ownership advantages in the forms of advanced technology, product differentiation, managerial and entrepreneurial skills, and knowledge-based intangible assets in particular. In contrast, for developing source countries, because they have relatively lower technological and innovative capabilities and are at the mid-level of economic development, the ownership advantages possessed by their enterprises not only are relatively fewer in general but also are more concentrated in the forms of labour-intensive production technology, standardized manufactured products and well-established export market networks.

The incentives for enterprises to internalize the use of their ownership advantages through FDI depend on the nature of the ownership advantages and the degree of imperfections in the markets for the ownership advantages they possess. Therefore, the more technology-intensive and the higher the imperfections of the markets are, the stronger the incentives for the enterprises to internalize the use of their ownership advantages through FDI and control operations. Since enterprises in the technology-intensive sector and capital-intensive sector possess more advanced technology and knowledge-based intangible assets than enterprises in the labour-intensive sector, foreign investors in the technology-intensive sector and capital-intensive sector have more incentives to set up wholly owned enterprises than foreign investors in the labour-intensive sector. Also, as pointed out above, since enterprises from the developed source countries possess more technology-intensive and knowledge-based intangible assets than enterprises from the developing source countries, we may expect that enterprises from the developed source countries have greater incentives to internalize the use of their ownership advantages and a stronger tendency to secure control over the business than enterprises from the developing source countries.
One of our main interests in this study is to compare and analyse the differences between the developed and developing source countries and economies investing in China. Therefore, the main implication of this discussion for our present study is that in the case of the developed source countries, which have high technological and innovative capabilities, high overall levels of economic development and possess more ownership advantages in high technology and knowledge-based intangible assets, their investments in China should:

- be relatively more in the technology-intensive and capital-intensive sectors;
- adopt more capital-intensive technologies in production;
- have higher labour productivity;
- be more domestic-market oriented; and
- have a higher propensity to set up wholly owned enterprises.

By comparison, for the developing source countries and economies, being relatively low in technological and innovatory capabilities and overall level of economic development, and possessing more ownership advantages in labour-intensive production technology, standardized manufactured products and well-established international export market networks, their investments in China should:

- be mainly concentrated in the labour-intensive sector;
- use more labour-intensive technologies in production;
- have lower labour productivity;
- be more export oriented; and
- have lower propensity to set up wholly owned enterprises.

In terms of the demand-side factors, a host country’s overall attractiveness to FDI is determined by the location advantages it possesses. Because resource endowments are not evenly distributed among countries, and social and economic factors as well as government policies are also different among countries, the attractiveness of host countries to FDI is different. This implies that given the supply-side factors the differences in location advantages of host countries are crucial in determining the distribution of FDI inflows into host countries.

To facilitate the discussion of the location factors affecting FDI inflows, from the host country’s point of view, we classify total FDI into two types: market-oriented FDI and export-oriented FDI.

Market-oriented FDI aims to set up enterprises in a particular country to supply goods and services to the local market. This kind of FDI may be
undertaken to sustain or protect existing markets or to exploit or promote new markets. The most frequently cited reason for market-oriented FDI is tariff barriers imposed by host country governments. However, studies of the causes of FDI, such as Caves (1971, 1974a, 1974b), have shown that market-oriented FDI is most likely to originate from, and to be found in, those industries characterized by high product differentiation, high absolute capital costs (high barriers to entry), high economies of scale, high multi-plant economies and high entrepreneurial requirements. According to these characteristics, the market size, prospects for market growth and the degree of development of host countries are very important location factors for market-oriented FDI. The general implication is that host countries with larger market size, faster economic growth and a higher degree of economic development will provide more and better opportunities for these industries to exploit their ownership advantages and, therefore, will attract more market-oriented FDI.

Export-oriented FDI aims to use particular and specific resources at a lower real cost in foreign countries and then to export the output produced to the home country or to third countries. The most important location factors for export-oriented FDI are resource endowments. In general, the explanation for export-oriented FDI can be found in an extension of international trade theory. The principle of comparative advantage in international trade theory seeks to explain the commodity composition of trade. It assumes complete immobility of factors of production and finds an explanation of commodity composition of trade in the factor endowment ratios and preference characteristics in different countries. However, factor endowments should not be considered as rigid, especially in developing countries. Many studies have shown that a country’s comparative advantage changes over time in the process of its economic development, depending on its relative performance in physical capital and human capital accumulation compared with other countries in the world (Anderson, 1990; Leamer, 1984; Song, 1996). The frequently cited successful examples are the Asian NIEs (Hong Kong, Singapore, South Korea and Taiwan). Modifying the traditional theory of comparative advantage and allowing for the international mobility of some factors of production, for example, capital and technology, and not others like natural resources and human labour, enables location theory to determine the location decisions of FDI. In particular the differential endowment of immobile factors strongly influences such location decisions: those countries endowed with a relative abundance of a particular immobile factor will be the location choice of the production of those commodities that use that factor intensively.

For the developing countries, being relatively abundant in labour
resources, FDI will tend to locate in them in order to benefit from the lower wage rates. However, it should be realized that it is not low absolute wages that matter, but low efficiency wages. Thus, it is those developing countries which have put great efforts into investing in and developing human capital that will tend to attract more export-oriented FDI.

Whether export-oriented FDI will tend to produce the final product or just some input depends on the degree of product standardization and the degree to which all stages in the production process of the industry are or can become labour intensive.

This discussion of export-oriented FDI implies:

- export-oriented FDI will tend to be high in developing host countries where efficiency wages are low;
- export-oriented FDI will tend to be high in developing host countries which have a comparative advantage in labour-intensive manufacturing; and
- export-oriented FDI will tend to be high in the industries whose production is relatively labour intensive.

In addition to the location factors discussed above, other location factors such as relative distance, culture, language, government policy, and financial and political stability of host countries, are very important in influencing the distribution of FDI inflows into developing host countries. These will be explained further in the course of our analysis.

In terms of the spillovers of FDI, the supply-side factors – the ownership advantages and the internalization advantages – are the main sources of spillovers from FDI to host countries’ economies. The general implication is that the more ownership advantages, the more spillovers would be generated from FDI to host countries’ economies. However, whether domestic firms of host countries will benefit from spillovers of FDI will also depend on the absorptive capabilities of host countries – the demand-side factors, such as the level of local innovative capacity, the level of infrastructure development (telecommunications and transportation) and particularly the quality of human resources. Therefore, the implication is that, given the supply-side factors (the sources of spillovers of FDI), the higher the level of local absorptive capabilities, the more the benefit received by domestic firms of host countries from spillovers of FDI will be.

By applying mainly the theoretical framework of Dunning’s OLI paradigm in explaining FDI, together with the theories of international trade and economic development, we have considered a number of key implications for our study. These implications will enable us to develop a set of hypotheses that may be expected to explain the distribution of FDI
inflows into developing countries in general and to explain the location determinants, the investor differences and the economic impacts of FDI in China in particular. These hypotheses will be developed and tested in the following chapters of this study.

STRUCTURE OF THE STUDY

Chapter 2 analyses China’s FDI policies. It aims to provide a general policy background for the study of FDI in China. China’s FDI policies are very wide-ranging and complex, and it is difficult to cover all aspects in one chapter. Therefore, this chapter mainly focuses on several key policy aspects, including regional open policies, FDI laws and regulations, industrial policies for FDI, foreign exchange management and tax policies for FDI. These reflect not only the evolving changes but also the main features of China’s FDI policies during the past three decades.

The eight core chapters are grouped into three parts, each focusing on a specific issue raised in this study, namely, location determinants (Part I), investor differences (Part II) and economic impacts (Part III).

Part I comprises Chapters 3 to 5 and focuses on the investigations and tests of location determinants affecting FDI inflows into developing countries, the impact of FDI inflows into China on FDI inflows into other developing countries, and the provincial distribution of FDI within China.

The study of location determinants in Chapter 3 is at the level of developing countries. At this level the country is the basic unit of analysis to examine the location determinants of FDI and to explain the differences of country distribution of FDI inflows into developing countries. This chapter starts with an introduction to China’s performance in attracting FDI inflows during the past three decades and compares this with other developing countries. By doing so it raises the questions: which location factors determine FDI inflows into developing countries; what is the relative performance of China in attracting FDI inflows compared with other developing countries; and has China attracted excessive FDI inflows based on its location characteristics?

To facilitate the analysis and answer these questions, a ‘modified’ gravity model is developed, which establishes and provides a theoretical norm for FDI inflows from all source countries into each of the developing host countries. Following the principle of the theoretical model, a set of hypotheses which are thought to be important location factors determining FDI inflows and are expected to explain the country distribution of FDI inflows into developing countries is developed. Based on the modified gravity model and the hypotheses, a regression equation is established
and then an econometric test of the hypotheses is conducted by using a multiple regression technique with panel data for 50 developing countries over 17 years from 1992 to 2008. Consequently, against the statistically tested empirical norm, the relative performance of China in attracting FDI inflows is evaluated. The issues of whether China’s performance in attracting FDI inflows has been especially outstanding as compared with those of other developing countries, and whether China has attracted excessive FDI inflows into its economy are examined and discussed.

Chapter 4 focuses on investigating the impact of FDI inflows into China on FDI inflows into other developing countries. By incorporating the variable of the ‘China effect’ – FDI inflows into China – into the empirical model developed and tested in Chapter 3, a regression equation is established and the China effect is empirically tested by using a multiple regression technique, first with panel data for 49 developing countries and then with panel data for 18 Asian developing economies over 17 years from 1992 to 2008. Based on the empirical regression results, the impact of FDI inflows into China on FDI inflows into other developing countries and economies is examined, the possible causes of the China effect on FDI inflows into Asian developing economies are explained and, finally, the implications for future FDI inflows into China and Asian developing economies are discussed.

Chapter 5 also adopts the same analytical method developed in Chapter 3, but it focuses the analysis of location determinants of FDI inflows at the level of China’s provinces. At this level, the analysis takes each province as the basic location for hosting FDI inflows in order to examine the provincial location determinants and to explain the differences in provincial distribution of FDI inflows within China. The chapter starts with an examination of the provincial distribution of inward FDI, and reveals a situation of significantly uneven provincial distribution. Why has this happened and what are the location factors determining the provincial distribution of FDI inflows into China? To answer these questions, a set of hypotheses relating to the provincial location factors affecting FDI inflows is developed and discussed. An econometric test of the hypotheses is conducted by using a multiple regression technique with panel data for 30 provinces over 20 years from 1986 to 2005. Based on the regression results, the inward FDI attractiveness index is developed for each province and region, and the uneven provincial distribution of FDI inflows is explained. Finally, some policy suggestions are proposed in order to reduce the degree of the uneven provincial distribution of FDI within China.

Part II consists of Chapters 6 and 7 and is devoted to the sources of FDI into China. The analysis focuses on examining and comparing the
Introduction

investor differences in their investment and production behaviour, and seeks to explain the reasons causing these differences among the major investors.

Chapter 6 shifts the analysis of FDI in China from examining the location determinants towards examining the investor differences. It starts with identifying the major investors by examining the composition of FDI sources in China, and then proceeds to examine and explain the variations of the investment intensities of the major source countries and economies in China. The investment intensity index reveals a sharp difference between the developed source countries and the developing source countries and economies in terms of the relative importance of China as a host for their investments as compared with the rest of the world. Which factors explain the variations of the investment intensities of the major source countries and economies in China? Mainly based on the theory of transactions costs, a number of hypotheses are developed to explain the variations of the investment intensities. The hypotheses are tested by applying the pooled ordinary least squares (OLS) and random effects regression techniques with panel data of 34 source countries and economies over the period 1992 to 2008. Finally, based on the regression results, the chapter gives the explanations for the variations of the investment intensities of the major source countries and economies in China.

Chapter 7 continues the investigation and analysis of investor differences started and developed in Chapter 6. However, it turns the analysis towards examining and explaining the differences in investment and production behaviour of the major investors in China. It starts with an examination of the sectoral distribution of FDI in China’s economy, and an analysis of the development and structural changes of FDI in China’s manufacturing sector, then proceeds to compare and analyse the differences among the major investors in their investment and production behaviours in China’s manufacturing sector. To facilitate the analysis, based on data availability and the technological and economic development levels, the major investors are divided into two groups: the overseas Chinese investors (from Hong Kong, Macao and Taiwan) and the foreign country investors (mainly from the Organisation for Economic Co-operation and Development countries). Based on the above groupings, this chapter reveals several main differences in terms of investment pattern, mode of entry, export propensity, capital intensity and labour productivity between the overseas Chinese affiliates and the foreign country affiliates in China’s manufacturing sector.

Part III contains Chapters 8 to 10 and is devoted to the impacts of FDI on China’s economy. However, among the many possible consequences resulting from FDI, the analysis focuses on examining the contributions
of FDI on China’s economic growth, the spillover effects of FDI on productivity and exports of China’s domestic firms.

Chapter 8 shifts the study of FDI in China from searching for the location determinants of FDI inflows into China and the investor differences in investment and production behaviour to assessing the consequences of the rapid growth of FDI on China’s economy, with a particular emphasis on the spillover effects of FDI on China’s economic growth. The chapter starts with an overview of the contributions of FDI to China’s economy in terms of capital formation and employment creation. Then it identifies the possible channels through which FDI may affect China’s economic growth. By using an augmented growth model with a panel dataset containing China’s 30 provinces over the period 1986 to 2005, the direct effects (for example, raising output and productivity) and spillover effects (for example, diffusing technology and management skills) of FDI on China’s regional economic growth are empirically tested and analysed. Finally, based on the empirical regression results, the contribution of FDI to China’s regional economic growth is calculated and the implications for enhancing and accelerating the diffusion of positive spillovers from FDI to China’s economy are discussed.

Chapter 9 deepens the analysis of the impacts of FDI on China’s economy to the firm level by examining the spillover effects of FDI on domestic firms with a particular emphasis on examining the horizontal technology spillovers of FDI to China’s domestic firms’ productivity. This chapter first presents a literature review on the productivity spillovers of FDI for domestic firms and reveals the inconsistency between the theoretical prediction and what has been found in many previous empirical studies. Then it discusses the channels through which horizontal technology spillovers of FDI could take place and proposes that there may be a non-linear relationship between horizontal FDI presence and domestic firms’ productivity. As a result, an empirical regression equation, with a non-linear function between horizontal FDI presence and domestic firms’ productivity, based on the production function is specified and established. After dealing with the selection bias problem from firms’ exit and entry with the neighbourhood matching technique and the endogeneity problem with first differencing regression, and controlling the inter-industry linkages between FDI presence and domestic firms (the backward and forward spillovers of FDI), the different sources of FDI (the ratio of the capital from Hong Kong and Taiwan to the capital from other foreign investors), and regional, industrial and time dummy variables, the horizontal spillovers of FDI on the productivity of China’s domestic firms are empirically tested and investigated by using the manufacturing firm-level panel data for China during the period 2000 to 2003. Finally, based on
Introduction

the regression results, the turning point (the critical value) of the horizontal industrial FDI share, where the positive horizontal spillovers of FDI will peak, is calculated and the implications for enhancing the positive horizontal spillovers of FDI on China’s domestic firms’ productivity are discussed.

Chapter 10 continues the investigation of the impact of FDI on China’s economy at the firm level, but it turns the analysis towards examining the impacts of FDI on China’s exports by focusing on investigating the spillover effects of FDI on China’s domestic firms’ exports. The chapter starts with a presentation of the remarkable contribution of FDI to China’s export expansion during the past three decades. This is followed by a discussion of the main channels by which FDI may promote domestic firms’ export activities and a review of empirical studies on export spillovers of FDI on domestic firms’ exports. Then it proceeds to investigate the spillover effects of FDI on China’s domestic firms’ exports. First, the variables of horizontal spillovers, backward spillovers and forward spillovers of FDI at the industry level are specified. Second, to control for firms’ entry and exit and their possible impact on the relationship between FDI and domestic firms’ exports, the neighbourhood matching technique is used to sort out those domestic firms with the same exporting behaviour. Then an empirical model for the investigation of the spillover effects of FDI on China’s domestic firms’ exports is specified, in particular, a Heckman two-step procedure regression is combined with the first differencing regression technique to deal with the endogeneity problem associated with firms’ fixed effects and the sample selection problem due to domestic firms’ non-random selection between exporting and non-exporting behaviours.

Based on the above specifications and the empirical model, using the firm-level census data of China’s manufacturing industries during the period 2000 to 2003, after controlling for the impact of firm-specific characteristics of productivity, capital to labour ratio, R&D activities, scale, age and indirect foreign investment of domestic firms, the chapter carries out a series of regressions to investigate the impacts of FDI on China’s domestic firms’ exports. In searching for the export spillovers from FDI to domestic firms, the study not only examines the horizontal impact but also investigates the impact through backward and forward industrial linkages. In addition, the study examines the impact of different FDI firms in terms of the market orientation on domestic firms’ exports. Finally, the chapter provides the interpretations of the regression results and presents some implications for promoting the diffusion of the positive export spillovers from FDI to China’s domestic firms.

Chapter 11 serves as the conclusion of this study. It summarizes the main findings of this study, provides some policy implications for China’s
Foreign direct investment in China

attraction and utilization of FDI in the near future, and discusses the prospects for FDI inflows into China amid the current global financial and economic crisis.

NOTES

1. However, we should note that this high annual growth rate is also partly because of the very low base of FDI in China in 1979.
2. The four special economic zones are Shenzhen, Zhuhai and Shantou in Guangdong Province, and Xiamen in Fujian Province.
3. See Chapter 2 for more detailed discussion of China’s FDI policies and regulations.
4. Dr Guonan Ma from the International Settlement Bank informed the author that he estimated in 1993 that the round-tripping FDI accounted for 25 per cent of China’s total FDI inflows in 1992.
5. We discuss the tax incentives and preferential treatments offered by various levels of Chinese governments to FDI in more detail in Chapter 2.
6. Data for provincial FDI inflows are not available after 2005.
7. The Asian NIEs include Hong Kong, Singapore, South Korea and Taiwan.
8. The four ASEAN economies include Indonesia, Malaysia, the Philippines and Thailand.
9. Data for actual FDI inflows by sectors are not available before 1997.
10. According to China’s official statistics, foreign direct investment includes foreign investments in equity joint ventures, contractual joint ventures, wholly foreign owned ventures, and joint exploitation, and the minimum share of foreign investment should be equal or above 25 per cent.
11. We discuss the implication of efficiency wages in more detail in Chapter 3.