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Facts and Issues

Multinational enterprises (MNEs) are key players in globalized economies. Foreign-owned MNEs employ one worker in every five in European manufacturing and one in every seven in US manufacturing; they sell one euro in every four of manufactured goods in Europe and one dollar in every five in the US (OECD 2001b).

The general public and policy makers around the world have mixed feelings about MNEs: they see them as either welcome bearers of foreign wealth and knowledge or unwelcome threats to national wealth and identity. Policy makers want MNEs to invest in their country, take pride when their firms rank high in Fortune's list of the largest firms in the world, but are unhappy when national firms close down domestic activities and open up foreign ones, or when foreign brands compete successfully with national ones. The Dr Jekyll and Mr Hyde perception of MNEs stems more from the ambiguous feelings often directed towards large market players with no national identity than from rigorous economic analysis. Indeed, the debate on MNEs is rarely grounded in economic arguments and there is little understanding of what MNEs are, and what the sound reasons for liking or disliking them are.

MNEs are often different from purely national firms and some of the concerns raised are legitimate.[1] They are relatively large, they have competitive power in the market place and bargaining power in the policy-making arena, particularly in smaller developing countries. They are global players who can circumvent national regulations and policies more easily than can national firms. They are footloose, able to move activities between their plants at relatively low cost, removing benefits as rapidly as they deliver them. They mass-produce standardized products, jeopardizing national product variety.

However, these very features of MNEs also explain why countries compete fiercely to attract them. They often bring scarce technologies, skills and financial resources. They are quick to take advantage of new economic opportunities and thus to contribute to the creation of national wealth. They are bound by international stan-

[1] We will use the term 'national firm' to mean a firm that produces in a single country, in contrast to a multinational.

dards and market competition and they often offer better employment conditions and product qualities than national firms.

Moreover, MNEs are not just giant corporations like Microsoft or Coca-Cola. Many small and medium enterprises, firms with limited market power in domestic and foreign markets, have one or more foreign subsidiaries. Investing abroad and thus becoming an MNE is a strategy open to and followed by many types of firms.

This book addresses the concerns surrounding MNEs and brings clarity to the debate. It provides a thorough assessment of what MNEs are, of why and where they arise and of their economic impact on home and host economies. We conclude that, although none of these concerns have straightforward answers, the balance bends in favour of MNEs: they are a fundamental feature of modern economies and there is no evidence that their actions are generally less beneficial to home and host economies than are the actions of national firms.

1.1 Multinationals: What Are They and How Are They Measured?

Since multinationals are the subject of this book, the first task is to define them. MNEs are firms that own a significant equity share (typically 50% or more[2]) of another company (henceforth subsidiary or affiliate) operating in a foreign country. MNEs include modern corporations such as IBM, General Motors, Intel and Nike, and also small firms such as Calzaturificio Carmens, a shoemaker employing 250 workers divided between Padua (Italy) and Vranje (Serbia).

The activities of MNEs are best measured by firm-level data, such as the number of people they employ and the size of their sales. Unfortunately, these data on firm-level activities are not widely available. Even when aggregated across firms, there are many gaps in the data and they are not always standardized across countries. Instead, the researcher often has to rely on data on flows of foreign direct investment (FDI). These are recorded from balance-of-payment statistics and they are available across time, industrial sectors and for many receiving and sending countries. According to IMF/OECD definitions (IMF 1993; OECD 1996), FDI is an investment in a foreign company where the foreign investor owns at least 10% of the ordinary shares, undertaken with the objective of establishing a 'lasting interest' in the country, a long-term relationship and significant influence on the management of the firm. FDI flows include equity capital, reinvested earnings and other direct investment capital. In other words, they comprise the financing of new investments, retained earnings of subsidiaries, inter-firm loans and cross-border mergers and acquisitions.

[2]More precisely, according to OECD and IMF recommendations, the foreign firm can be defined as a subsidiary if the foreign investor controls more than 50% of the shareholder's voting power or has the right to appoint or remove a majority of the members of this enterprise's administrative, management or supervisory body. Otherwise, it can be defined as an associate enterprise if the foreign investors own between 10 and 50% of the voting shares. See the appendix to the book for statistical definitions.

They are different from portfolio investments, which can be divested easily and do not have significant influence on the management of the firm. Thus, to create, acquire or expand a foreign subsidiary, MNEs undertake FDI. The total direct capital owned by non-residents in a given country each year constitutes the stock of FDI. (See the appendix to the book for a discussion of the statistical definitions of FDI stocks.)

Despite their conceptual differences, we will sometimes use the terms FDI and MNE as if they are synonyms, both acting as a label for the phenomenon studied in this book. We note that other terms are used in the literature—for example, transnational corporation—but we restrict ourselves to terms that have standard usage and exact counterparts in the collection of data.

1.2 The Facts: Empirical Overview

Before embarking on an analysis of MNEs, it is helpful to review the stylized facts about the role of MNEs in the world economy.

Fact 1. FDI grew dramatically in the last 15 years of the twentieth century, far outpacing the growth of trade and income.

The period 1986–2000 saw an enormous growth of activity by multinational enterprises, as measured by flows of foreign direct investment. As shown in Figure 1.1, inflows of FDI grew much faster than either trade or income; whereas worldwide real GDP increased at a rate of 2.5% per year between 1985 and 1999 and worldwide exports by 5.6%, worldwide real inflows of FDI increased by 17.7%. This compares strikingly with pre-1985 data, when real world GDP, exports and FDI were following closer trends. Between 1970 and 1984, real FDI grew at an average yearly rate of 4.2%, worldwide real GDP by 3.1% and world exports by 5.2%.[3] Since 2001, the rise of world FDI was reversed, and real world inflows were back to their 1998 level. This decline is explained by a series of contingent factors: 1999 and 2000 values were anomalous peaks, partly due to the rise of intra-EU investments following the implementation of the single currency and to the rise of share prices (much FDI takes place through acquisitions in the stock exchange); in 2001, the collapse of share prices and the slowing down of the economy reduced the value and the pace of cross-border mergers and acquisitions.

Despite their rapid growth, FDI flows remain much smaller than trade flows. In 2001 world exports were 7666 billion US$, whereas world FDI inflows were 823 billion US$. However, the picture changes if we revert to the activities of MNEs, activities based on the stock of capital rather than the flow of investment. The sales of foreign subsidiaries are in many instances much larger than trade flows. For example,

[3]The data mentioned come from a special extract of the UNCTAD FDI/TNC Database and from the World Bank, World Development Indicators.

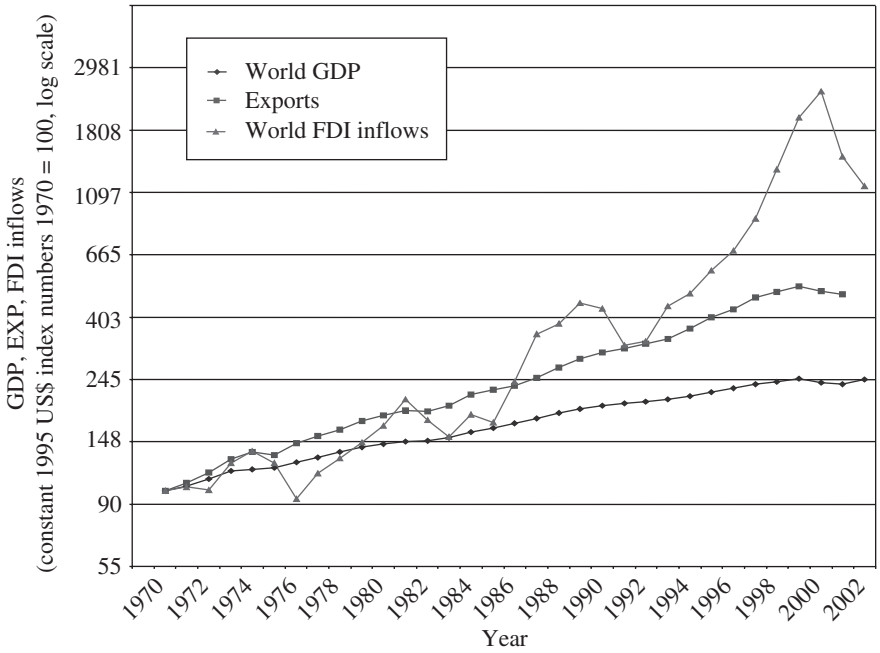

Figure 1.1. Trends in world GDP, exports and FDI inflows, which are index numbers set equal to 100 in 1970 and transformed into a logarithmic scale. *Source:* authors' calculations on World Bank WDI and UNCTAD data.

sales of manufacturing products of US subsidiaries in the EU are approximately 3.8 times larger than EU imports from the US and sales of EU subsidiaries in the US are 3.6 times larger than EU exports to the US (US Department of Commerce, Bureau of Economic Analysis and Eurostat). Furthermore, a very large share of world trade is conducted by MNEs. Some commentators have estimated that multinationals—parents and subsidiaries combined—are responsible for 75% of the world's commodity trade (Dunning 1993). According to figures from UNCTAD (1998, 1999a,b, 2000), around one-third of world trade is intra-firm, i.e. between subsidiaries based in different countries or between the subsidiaries and the headquarters of MNEs.

The scale of multinational operations and the role they play in the process of globalization is best gauged by looking at their shares in economic activity. Table 1.1 reports the share of foreign subsidiaries in total manufacturing employment and sales for the G5 countries.[4] These are large, generally above 10% with peaks around 30% for sales in France and the UK. They also grew considerably between 1994 and 1998. Note, however, that these shares vary across the five countries analysed.

[4]These statistics are compiled from OECD data. Similar ones are provided by the UN and included in the World Investment Report. The two sets of figures are generally consistent, although for some countries there are differences in the values of the shares.

Table 1.1. Share of foreign subsidiaries in total manufacturing activities (%).

	US		Japan		UK		Germany		France	
	1994	1998	1994	1996	1994	1998	1994	1998	1994	1998
Employment	12.24	13.12	0.8	0.8	18.1	17.8	7.2	6.0	23.1	27.8
Sales*	15.9	21.16	1.4	1.8	30.6	31.4	13.1	10.8	28.7	31.7

Source: OECD 2001b; OECD STAN Database, 2002, Release 02.
Note: Data for the United States refer to minority and majority foreign-owned firms, while data for Japan, Germany, France and the United Kingdom refer to majority-owned foreign affiliates only.
*USA: turnover (foreign subsidiaries) / production (total manufacturing).

Japan's economy is virtually closed to foreign MNEs, which account for less than 1% of manufacturing employment; in Germany, MNEs account for a lower share of manufacturing employment and output than in the other large EU countries, a share that even declined between 1994 and 1998. As discussed in what follows, countries' characteristics and policies play a very important role in explaining the geographical distribution of the activities of MNEs.

MNEs are important in services as well as in manufacturing, although data on service activity are limited. In the UK, the share of foreign subsidiaries in service sector employment in 1998 was 8.4% in utilities and construction, 6.7% in trade, repairs, hotels and restaurants, and 8% in finance, insurance and business services (OECD 2001b), levels somewhat less than half that in manufacturing.

Fact 2. FDI originates predominantly from advanced countries.

Where does FDI come from? As shown in Table 1.2, the predominant source of supply of FDI is the advanced countries.[5] Between 1998 and 2000, 92.9% of outward flows originates in an advanced country. Developing countries had increased their share of outward flows through the 1970s and 1980s to a peak of 15.3% of world flows in the mid 1990s, to see it declining again in the late 1990s. Among individual countries, the US is the world's largest foreign investor. The EU *as a whole* accounted for 71.2% of all outward stocks, a share that has risen sharply partly because of the rise in intra-EU investments[6] associated with deepening integration in the EU and following the creation of the Single Market in 1992. Notice that the EU's FDI is

[5]We classify countries in this section according to UNCTAD with minor changes. Advanced countries include the 15 countries of the European Union in 2003 (Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, The Netherlands, Portugal, Spain, Sweden, United Kingdom), Gibraltar, Iceland, Norway, Switzerland, Canada, the US, Australia, New Zealand, Japan and Israel. Developing countries comprise the rest of the world, including the transition economies of Central and Eastern Europe, as well as South Africa; UNCTAD classifies the transition economies as a separate group and South Africa among the advanced countries.

[6]Intra-EU FDI account for approximately half of all FDI inflows into the EU.

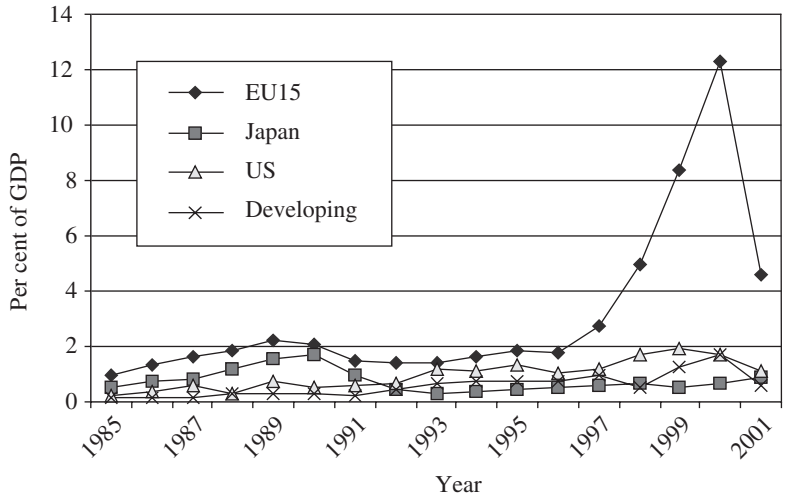

Figure 1.2. Sources of outward FDI. *Source:* UNCTAD FDI/TNC database.

exaggerated relative to the US's, as intra-US investments are classified as domestic investments.

In the developing world, only the Asian countries (especially China, Hong Kong, Taiwan, South Korea and Singapore) supply a significant share of world flows by the mid 1990s. Most of these investments took place within Asia and therefore declined drastically in the aftermath of the Asian crisis in 1997.

Yet, most of the difference between the advanced and developing countries is accounted for by sheer economic size, and the difference in outflows relative to GDP is perhaps less than might be expected. Figure 1.2 maps out the time series of FDI outflows relative to source country GDP (detailed shares are reported in Table 1.8). In the mid 1990s outward flows ranged from an average of 1.3% of GDP for the advanced countries to an average of 0.9% for the developing countries. The noticeable exception is the EU, which moved from a share of 1.3% in the early 1990s to 5.5% by 1997, thus raising the average share of the advanced countries to 2.9%. As argued above, much of the EU increase is driven by intra-EU investments. Although it declined in 2001, the FDI share of GDP remains higher for the EU than for the other regions of the world.

Fact 3. FDI goes predominantly to advanced countries, but the share of developing countries has been rising.

Turning to the destination of FDI, Table 1.3 shows that most goes to the advanced industrial countries. As will be discussed in Chapters 2, 3 and 6, this is not surprising, given that MNEs often seek large and growing markets. The advanced countries' share of world FDI inflows has fluctuated between 58 and 78%. Notice, however,

Table 1.2. FDI outflow, % share by area of origin.

Area of origin	1970–73	1974–78	1979–83	1984–88	1989–91	1992–94	1995–97	1998–2001
Advanced countries								
USA	49.78	42.19	30.94	16.56	15.44	26.95	22.68	15.74
Europe	41.01	43.64	46.91	53.32	54.67	46.07	51.02	69.73
Japan	4.23	6.56	7.97	14.45	19.29	7.12	5.97	3.14
Oceania	0.89	0.92	1.38	3.75	1.39	1.77	1.21	0.26
Total advanced countries	**99.62**	**98.33**	**94.87**	**93.27**	**93.39**	**84.71**	**84.93**	**92.87**
Developing and transition countries								
Latin America	0.12	0.52	1.03	0.83	0.93	2.22	2.19	2.17
Africa	0.19	0.62	2.29	1.41	0.63	0.74	0.66	0.10
Asia (excluding Japan)	0.07	0.51	1.78	4.47	5.03	12.23	11.81	3.99
Oceania	0.00	0.00	0.01	0.01	0.00	0.01	0.00	0.01
Central and Eastern Europe	0.00	0.03	0.02	0.01	0.01	0.09	0.38	0.34
Total developing and transition countries	**0.38**	**1.67**	**5.13**	**6.73**	**6.61**	**15.29**	**15.07**	**7.13**
World (%)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
World (yearly average, million US$)	17 588	29 768	49 002	104 790	219 429	237 132	404 289	928 458

Source: UNCTAD.

Table 1.3. FDI inflow, % share by area of destination.

Area of origin	1970–73	1974–78	1979–83	1984–88	1989–91	1992–94	1995–97	1998–2001
Advanced countries								
USA	8.97	13.40	26.04	39.07	24.59	17.27	20.44	22.60
Europe	44.20	43.38	32.44	28.11	46.36	35.12	31.34	49.91
Japan	0.79	0.47	0.59	0.38	0.39	0.68	0.24	0.78
Oceania	6.82	5.11	4.56	5.24	4.33	3.53	3.01	0.45
Total advanced countries	**76.60**	**75.25**	**69.34**	**77.53**	**78.69**	**59.58**	**57.98**	**78.12**
Developing and transition countries								
Latin America	11.63	13.69	12.74	7.93	6.38	11.12	12.66	9.53
Africa	5.17	3.41	2.49	2.57	1.89	2.11	1.92	1.22
Asia (excluding Japan)	5.84	7.36	15.10	11.76	12.14	24.24	23.23	8.51
Oceania	0.70	0.20	0.23	0.16	0.13	0.11	0.08	0.02
Central and Eastern Europe	0.00	0.02	0.03	0.03	0.71	2.66	3.88	2.60
Total developing and transition countries	**23.40**	**24.75**	**30.66**	**22.47**	**21.31**	**40.42**	**42.02**	**21.88**
World (%)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
World (yearly average, million US$)	15 392	26 521	54 875	102 211	184 665	215 624	397 965	976 933

Source: UNCTAD.

that they account for a lower share than they do as sources of FDI. Among advanced countries, the picture is similar to that for outward investments, with the largest share concentrated in the EU, although the US is the largest individual country of destination.

As for developing countries, the share of worldwide FDI received by the developing and transition economies jumped from 24.6% in the period 1988–93, to more than 40% in the period 1992–97, before falling again to 21.33%, following the Asian crisis. These flows go overwhelmingly to Asia and Latin America, and China alone took around one-quarter of the total. Indeed, China accounts for much of the increase in flows to developing countries, with its share of world total FDI flows rising from 4.6% for the period 1988–93, to 9.2% for 1994–99.[7] The share of world investment going to sub-Saharan Africa remains low, although has increased somewhat, from around 1.1% between 1988 and 1993 to around 1.5% between 1994 and 1997.

The increase of FDI flows to developing countries reflects the growing importance of FDI as a source of financing of these economies. Figure 1.3 reports FDI inflows relative to the GDP of the host economy (detailed shares can be found in Table 1.9). During the five years from 1988 to 1992, advanced countries received FDI inflows at an average annual rate of 0.90% of their GDP, while the average for developing and transition countries was 0.78% of their GDP. By 1993 to 1999, the inflow rate for the advanced countries had increased to 2.3% of GDP, while that of developing and transition countries as a whole had more than doubled to 3.4% of GDP, with Asia and Latin America taking the lion's share. This finding is not surprising: developing countries lack sufficient domestic resources and they need foreign capital to finance their investments. FDI accounts for a share of roughly 61% of the total financial flows going from OECD to developing countries in 2001 (OECD 2003).

Fact 4. Mergers and acquisitions account for the dominant share of FDI flows, especially to high-income countries.

The establishment of a foreign subsidiary may take place in one of two ways. Either as a 'greenfield investment', where a new plant is set up from scratch, or as a merger with or acquisition of an existing firm (M&A). As shown in Table 1.4, the majority of FDI takes place through M&A activity rather than through greenfield investments, and the share of M&A has increased steadily since the mid 1980s from 66.3 to 76.2% in the period 1998–2001. The share of M&A is much smaller in developing than in advanced countries: 35.7 against 89% in 1998–2001. This reflects the role

[7] In nominal dollar terms, inward direct investment to China increased from $3.2 billion in 1988 to $40.4 billion in 1999. The source of all these flows, about 4% of China's GDP in 1999, remains hotly debated. The main sources are considered to be Chinese business groups resident in Asia, Chinese businesses resident in China that send their money out and then bring it back to get certain benefits available to foreign investors (the so-called 'round trippers'), and investors from the advanced industrial economies.

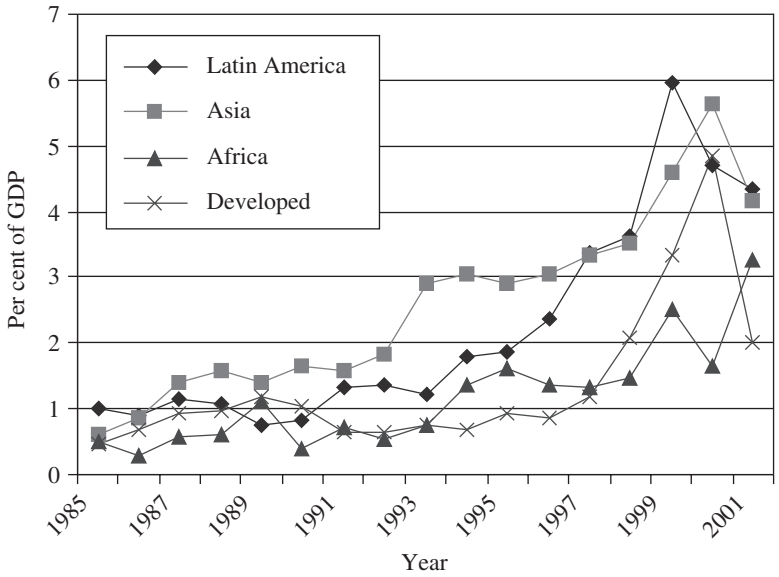

Figure 1.3. Hosts of inward FDI. *Source:* UNCTAD FDI/TNC database.

Table 1.4. Cross-border M&A investments as a percentage of FDI inflows to the host countries.

	1987–91	1992–94	1995–97	1998–2001
World	66.29	44.75	60.18	76.23
Developed countries	77.49	64.93	85.39	88.96
Developing countries and transition economies	21.94	15.49	25.79	35.74

Source: UNCTAD, FDI/TNC Database.

of FDI in financing new investment projects in developing countries, as well as the scarcity of takeover targets in these countries.

Fact 5. Most FDI is concentrated in skill- and technology-intensive industries.

The most noticeable trend in the sectoral distribution of FDI stocks in the *OECD countries* is the increase in the share of services (from 41.2% in 1982–86 to 53.2% in 1998–2000) and the parallel decline of the primary sector (from 15.1 to 5.65%) (see Table 1.10). This trend reflects the overall shift of world GDP from the primary sector and agriculture towards services. The share of manufacturing in FDI, approximately 40%, is larger than the share of manufacturing in world GDP, which is approximately 30%.

Table 1.5. World FDI inward stock by industry, 1999.

Industry	Share of world FDI inward stock (%)
Total	*100*
Manufacturing	*41.6*
Food, beverages and tobacco	2.8
Textiles, clothing and leather	1.0
Wood and wood products	1.5
Publishing, printing and reproduction of recorded media	1.0
Coke, petroleum products and nuclear fuel	1.9
Chemicals and chemical products	6.7
Rubber and plastic products	0.6
Non-metallic mineral products	1.0
Metal and metal products	3.0
Machinery and equipment	2.5
Electronic and electronic equipment	3.6
Precision instruments	1.4
Motor vehicles and other transport equipment	3.0
Other manufacturing	11.6
Services	*50.3*
Trade	10.5
Transport, storage and communications	5.9
Finance	15.9
Business activities	10.4
Other services	7.6
Primary sector	*8.1*

Source: UNCTAD (2001).
Note: Shares are only reported for a selected number of industries.

If we look at the distribution of *world* FDI inward stocks in 2001 (Table 1.5), the share of services is 50.3%, that of manufacturing is 41.6% and the primary sector accounts for the remaining share of 8.1%. Within manufacturing, the largest shares are in chemicals, electrical and electronic equipment, transport equipment, etc. Even more revealing is the analysis of the share of employment of foreign subsidiaries in total national employment for the US, UK, Germany and France, the world's largest recipients of FDI (Table 1.6). This indicator relates the activities of MNEs to national activities by sector. Consistent with the sectoral distribution of FDI stocks, we see that foreign subsidiaries account for a larger share of employment in industries like chemicals, machinery and transportation equipment.

The broad sectors in which the presence of MNEs is greatest are characterized by large investments in research and development, a large share of professional and technical workers, and the production of technically complex or differentiated

Table 1.6. Share of foreign subsidiaries in total manufacturing employment by industry (manufacturing).

Sector (1998)	France	Germany	UK	USA
Food, beverages, tobacco	—	4.80	10.60	11.56
Textiles, clothing, leather, footwear	14.20	3.40	—	4.67
Wood products	17.70	2.70	—	1.28
Paper, printing and publishing	26.80	2.50	—	5.57
Chemical products	44.70	10.3	35.80	37.04
Rubber and plastic products	29.40	4.70	27.70	13.78
Non-metallic mineral products	28.90	4.00	18.80	24.57
Basic and fabricated metals	18.60	4.20	25.70	10.07
Machinery, total	38.90	7.60	40.40	12.20
Electrical electronic equipment	34.50	8.80	41.10	—
Scientific instruments	29.90	7.90	27.30	—
Transportation equipment	20.60	7.30	45.60	19.40
Other manufacturing	18.70	2.50	17.10	—
Total manufacturing	**27.80**	**6.00**	**27.30**	**13.40**

Source: OECD 2001b; STAN Database for Industrial Analysis, Vol. 2002, Release 02.

goods. These assets provide 'services' to all the operations of the firm and they do not need to be expanded at the same rate as output. Thus, these services generate firm-level economies of scale, in that they can be used at low cost by the foreign plants of the MNEs. As will be discussed in Chapters 2, 3 and 6, firm-level economies of scale are important determinants of FDI.

Fact 6. MNEs are larger and sometimes more productive than national firms.

MNEs are generally large companies compared with national firms, both in home and host countries. Foreign subsidiaries of MNEs are on average larger than national firms in host economies (Griffith and Simpson 2001; Fabbri et al. 2002; Barba Navaretti et al. 2003). The home activities of MNEs are also, in general, larger than those of national firms with no foreign subsidiaries (Fabbri et al. 2002). A crude measure of this gap in host countries can be gauged by comparing the average size of foreign subsidiaries with that of all manufacturing firms in the largest G5 countries (Table 1.7). We find that foreign subsidiaries are relatively large when size is measured in terms of the number of employees, turnover and value added.

Table 1.7 also shows that the labour productivity of foreign subsidiaries is above average, both when measured by turnover and value added per employee. This finding, which will be extensively discussed in Chapter 7, is partly due to the sectoral composition of FDI, which is different from that of the economy as a whole. As argued earlier, MNEs tend to operate in more capital-intensive sectors. However,

Table 1.7. Comparing average size and labour productivity of foreign affiliates and all firms in manufacturing for the G5 countries.

	France		Germany		Japan		UK		USA	
Year (1997)	Foreign affiliates	All firms	Foreign affiliates	All firms	Foreign affiliates	All firms	Foreign affiliates	All firms	Foreign affiliates	All firms
Number of employees per firm	265.6	130.9	288.9	172.5	313.8	49.1	301.9	25.4	782.5	52.9
Turnover per firm (millions US$)*	61.1	25.8	105.6	33.8	184.1	11.5	94.5	4.5	234.6	10.7
Value added per firm (millions US$)	18.0	7.7	—	6.0	34.6	3.4	32.2	1.9	66.2	3.8
Turnover per employee (millions US$)*	0.23	0.197	0.366	0.196	0.587	0.234	0.313	0.177	0.3	0.202
Value added (millions US$)/employees	0.068	0.059	—	0.035	0.110	0.068	0.107	0.073	0.085	0.072

*US: turnover for all firms proxied by value of production.

Source: OECD 2001b; STAN Database for Industrial Analysis, Vol. 2002.

econometric studies that have carried out rigorous comparisons of labour and total factor productivity (which measures the efficient use of all the factors of production), controlling for size and sectoral effects, have invariably found that foreign-owned subsidiaries are more productive than firms with no foreign affiliates (Barba Navaretti et al. 2003; Criscuolo and Martin 2003; Griffith and Simpson 2001). Recent studies in the UK and the US have found that the home activities of MNEs are also more productive than those of national firms (Criscuolo and Martin 2003; Doms and Jensen 1998).

Fact 7. Multinational firms are increasingly engaged in international production networks.

The growth of international production networks, in which different stages of the production of a good takes place in different countries, is now well documented. Chapters 2, 4 and 6 deal extensively with this issue. There are many examples, such as the 'American' car for which

> 30% of the car's value goes to Korea for assembly, 17.5% to Japan for components and advanced technology, 7.5% to Germany for design, 4% to Taiwan and Singapore for minor parts, 2.5% to the UK for advertising and marketing services and 1.5% to Ireland and Barbados for data processing. Only 37% of the production value is generated in the United States.
>
> WTO 1998

This is sometimes referred to as 'vertical specialization' reflecting countries' production of different stages of a good and the consequent trade in intermediate products. (This is also referred to as 'fragmentation', 'disintegration of production' and 'intra-product specialization'.)

The concept of vertical specialization has no direct counterpart in the trade data that are collected, so attempts to measure its level and growth have inevitably had to use indirect methods. One approach has been to identify trade in parts and components, using highly disaggregated bilateral trade data. The best-known study of this type is by Yeats (1998), who establishes that the share of world trade that is in commodities, classified as parts and components, has been increasing steadily, and now accounts for around 30% of world trade in manufactures. East Asian global exports of components grew faster than any other major product group over 1984–96, increasing by 15% a year (compared with 11% for all products (Ng and Yeats 1999)). An alternative approach is to use input–output data to calculate the share of imports in the total inputs used in production. Campa and Goldberg (1997) find that this share increased substantially from the early 1970s to the early 1990s, doubling for the US, and for the UK approaching a share of one-third in electrical equipment

and machinery and transportation equipment. Hummels et al. (2001) work with a different measure, the share of imports in a country's exports. Using input–output data this is measured as the value of imported goods that are embodied in the exports of a particular sector and country. They find that for 10 OECD countries this share increased from 16% in 1970 to 21% in 1990. Furthermore, trade in intermediates accounted for 30% of the growth of total exports of OECD countries between 1970 and 1990. Much, although by no means all, of this trade takes place within multinational firms. Several authors have argued that an increasing share of multinational activity is now of this form. This is evidenced by data on the foreign subsidiaries of US firms, showing that these subsidiaries are becoming less oriented to supplying local markets and more oriented to exporting. Both their imported inputs and exported outputs have increased as a percentage of their overall activity (Hanson et al. 2001).

1.3 The Issues

The stylized facts on MNEs and on FDI outlined above raise a set of issues that are essential to the understanding of MNEs. In the remainder of this introductory chapter, we pose some of the main questions that will be addressed in detail in later chapters of this book.

Issue 1. Why do firms become multinational?

For the purposes of this volume we take as given the existence of large corporations, often with well-known brand names and complex operations ranging across different activities. Yet, the fact that these corporations are large does not mean that they have extensive multinational operations. As we have seen above, small firms are generally less likely to be multinational, yet many—such as the Paduan shoemaker referred to above—are.

There are two quite distinct aspects to multinationality. The first is *the geographic dispersion* of the firm's activities; multinationals have operations in many countries, although the nature of these operations varies widely, from raw materials processing to final product assembly. The other is the concentrated *ownership*, or *internalization*, of these activities. A firm that decides to operate in a foreign country can do it in different ways, for example, by opening a subsidiary or by subcontracting to local firms. Multinationality occurs when the foreign activity is not outsourced to a local firm, but instead undertaken by a subsidiary of the firm itself. An understanding of the trade-offs that firms face in choosing between these two distinct decisions is the essential building block in any analysis of multinationals. It is necessary if we are to understand, for example, what sorts of activities are located in what coun-

tries, how multinationals impact on host economies, and how responsive they are to government policy decisions.[8]

We preview in a non-technical way the analytical issues underlying these choices in Chapter 2, and address them in formal economic models in Chapters 3–5. Chapter 3 deals with the international location of firms' downstream activities, focusing on the product market and supply to final consumers. Chapter 4 looks in detail at more upstream activities (the intermediate stages of production), focusing on factor markets and on input costs. Chapter 5 switches to the internalization decision, investigating the costs and benefits of keeping activities internal to the firm, rather than using external contractors and dealing with them through market transactions. The theories developed in these chapters suggest a number of testable hypotheses regarding the determinants of FDI, and in Chapter 6 we see the extent to which they are supported by the data.

Issue 2. Why do MNEs go to some countries and not to others?

We saw above that multinational activity is very unevenly distributed across countries, and also that the geographical pattern of investments has changed in recent years. Why do some countries attract more investments than others? Answering this question is important to the understanding of how some developing countries have been able to grow fast on the basis of successful integration into the world economy, while others appear to have been marginalized. If countries are to be able to design policies to attract investments, then clearly it is necessary that they understand the forces shaping these locational choices.

Many of the forces in play have effects which are not straightforward and that should be carefully assessed. A good example is national legal systems. A legal system that protects the property rights of foreign investors is unambiguously a plus. However, a legal system that protects intellectual property rights might create confidence in the use of independent subcontractors, while in the absence of good protection the firm might keep activity in-house. Multinationality can then be a response to weaknesses in some elements of the legal system, as well as to strengths in other areas. Other aspects of the location choice are also more complex than seems immediately apparent. For example, access to a large market is likely to raise the potential profitability of investments, but it will do so for local firms as well as for multinationals. Taking into account the response of these local competitors to the entry of foreign firms, what can be said about the effect of market size on investment flows? Distance between parts of the firm's operation is important, but again not in

[8]The first comprehensive framework to analyse the location and the internalization choices of MNEs was by Dunning (1977a,b, 1981). Markusen (2002) shows how the choices of MNEs can be incorporated into the general equilibrium theory of trade. A full survey of these contributions will be reported in the analytical chapters of this book.

a clear-cut way. Local production is a way of overcoming trade costs in supplying remote markets, but such markets may also face high costs of imported inputs and difficult communications and management problems. Finally, the availability of cheap factors of production, like labour, may attract foreign investors, but not necessarily if local workers are unskilled and unreliable and the local market is small.

These issues are addressed in the theoretical modelling of Chapters 2–4, and come up again in our review of empirical material (Chapter 6) and the case study looking at the recent experience of Ireland (Chapter 8).

Issue 3. What is the effect of MNEs on host economies?

Many commentators regard MNE investments as a source of benefit, bringing inflows of capital and technology and creating new job opportunities. Others see multinational activity as undermining local firms, threatening economic instability and undermining local government. As usual, careful economic modelling and empirical work is needed to form a judgement about the importance of these effects, and we analyse them in Chapters 3 and 4.

There are several aspects to this evaluation. First, a counterfactual needs to be specified. For example, in the absence of an inward investment would the country instead have been served by imports or local production? Second, the potential channels of welfare gain need to be identified, bearing in mind that investments that simply crowd out similar local activities yields no net economic gain. What are these channels?

In the product market, the entry of a multinational firm might simply crowd out national firms, competing away their market shares. However, benefits can arise through several different channels. One is that the investment makes the market more competitive, eroding monopoly power of local firms. Another is that the investment might raise the productivity of local firms through some sort of spillover effect. This will happen if increased competitive pressure induces firms to reduce internal inefficiencies, or if there are direct knowledge spillovers or learning effects. For example, the presence of foreign firms might enable local firms to learn about new technologies, management methods and market opportunities.

In the labour market, the value of job creation by an FDI project obviously depends on what would have happened in the absence of the project. Is there a net increase in employment, or simply crowding out of some jobs by others? It may also depend on job characteristics. Will there be an increase in the demand for skills? Also, foreign firms may have different hiring and firing costs than national firms and react differently to wage and output shocks in the host economy. They have plants in different locations and may find it relatively easy to switch activities between plants. The welfare effects of this can go either way. On the one hand, it may make

the labour market more competitive, reducing monopoly power of trade unions. On the other, if it creates volatility and (uninsurable) uncertainty, it will be welfare reducing.

In addition to the mechanisms above, it may simply be the case that the total FDI inflow to an economy is large enough, relative to the rest of the economy, to change prices, bidding up wages and improving the economy's terms of trade. In this case there can be gains even if there are no imperfections or externalities in the host economy. We study this in some detail in our Chapter 8 on the Irish miracle. Chapter 7 provides a thorough review of the evidence on the effects of MNEs in host economies.

Issue 4. What is the effect of MNEs on home economies?

FDI also affects the investing economy (the source or home economy of the MNE). The issue is equally controversial. Countries may benefit from being the home of large MNEs, but question the effects of their firms transferring part of their activities to another country. Once again, we will undertake both theory modelling (Chapters 3 and 4), and review and extend the empirical literature (Chapter 9).

As with host country effects, the researcher has to identify the channels through which the economy is affected. Shareholders typically gain, as the investment is made to raise profits. Direct employment effects are negative, as activities are transferred to other countries. However, the full impact on the level of home country employment depends on the benefits that the firm receives from the investment. If the relocation lowers the firm's costs, then it may lead to an expansion of its overall production (or prevent a fall in its production), this causing home country employment levels to be higher than they otherwise would have been. The firm may benefit from technology transfer (if, for example, the outward FDI takes the form of setting up R&D facilities in Silicon Valley) and from improved access to foreign markets. Once again, to evaluate the effects of any job creation or destruction from the project, the counterfactual has to be specified: what would have happened in the absence of the investment?

As well as changing aggregate employment levels, FDI may also change the skill composition of employment, and perhaps also the stability of employment. One of the main criticisms of those opposed to MNE activity is that it has led to a deterioration of employment conditions, particularly for unskilled labour in advanced countries. We analyse these effects in Chapter 9.

Issue 5. What are the implications for policy?

The link between MNEs and policy is multifaceted, and the issues will be taken up in Chapter 10. The presence of MNEs may change the effectiveness of domestic policies and may create incentives for new policy measures. The effect of MNEs

on the effectiveness of policy is illustrated by corporate taxation. MNEs may be able to circumvent tax policy by relocating their activities to lower tax countries. Even if they do not relocate, they may be able to engage in transfer pricing which moves their reported earnings to operations based in low-tax countries. Trade policy also operates differently in the presence of MNEs, as rents from protectionist trade policies get transferred to foreign shareholders rather than national citizens. The general point here is that the response of MNEs to policy may be different to that of national firms. Since they span jurisdictions they may be less accountable to national policy makers and regulators. Their ability to relocate activities makes countries' tax bases more volatile. And their sheer size may give them a powerful bargaining position in dealing with national tax and regulatory authorities.

Policies may also be designed explicitly to attract (or discourage) MNE activity. Many areas of policy—from taxes through trade policy, labour market regulations and the legal system—alter the attractiveness of a country as a host for inward investment. New policies can be specifically designed to attract FDIs. The case of Ireland, discussed in Chapter 8, shows very clearly how the targeted activities of the Ireland Development Agency were instrumental to the Irish FDI boom in the 1990s. Ireland is not unique: many countries or local authorities provide large subsidies, tax waivers or exemptions from regulations in order to attract FDI. Although these policies have sometimes proven successful in attracting investments, it is not clear that they have been good value for public money. For example, in the early 1990s, Portugal gave a financial incentive of more than 250 000 dollars per job created in a car plant (UNCTAD 1996). Policy competition between jurisdictions raises the question of international policy coordination. Is it desirable to prevent countries (or regions) competing in the conditions they offer MNEs? The answer is specific to the policy variable considered—competition to give subsidies may be undesirable, but competition to provide a better legal framework may be beneficial. International policy coordination could also be useful in order to harmonize and ensure transparency of a country's regulations governing FDI and to create commitments against the adoption of domestic policies which are distorting and driven by interest groups. That international agreements are useful is demonstrated by the more than 2000 Bilateral Investment Treaties that are currently in effect. However, it has proved extremely difficult to move to a multilateral regulatory framework, largely because of the asymmetries between developing countries (which are on the receiving side of FDI) and high-income countries (which are on both the receiving and the investing side). All major efforts to agree on a common international framework for FDI policies, such as the OECD-sponsored Multilateral Agreement on Investments (MAI) and the WTO agreement on investments, have so far failed.

Another dimension of international policy coordination which is often taken up by the globalization debate is whether firms should also be the subject of international

regulations. The recent multinational scandals of Enron and Parmalat show that national bodies are often unable and do not have the authority to oversee international transactions. Although within regions there are already effective regulatory bodies (e.g. the competition authority of the European Union), there is much discussion as to whether multilateral institutions should be set up ruling on issues as diverse as competition, the environment, labour conditions. Again, this is an area where defining a global framework for consensus is extremely difficult. In Chapter 10 we also provide a cursory discussion of this problem.

1.4 Guide to the Book

This book revolves around the issues outlined above. Chapter 2 gives an overview of the theoretical issues and the main empirical results. The next part of the book focuses on theory. Chapters 3 and 4 discuss the determinants and the impact of MNEs, looking at horizontal and vertical FDI respectively. Chapter 5 deals with the choice of the mode of supplying a foreign market, whether internalized through a foreign subsidiary or outsourced through a market transaction with another firm. Readers not interested in formal economic theory can get the main theoretical insight from Chapter 2, skip Chapters 3–5 and move directly to the empirical chapters. Indeed, the rest of the book is devoted to empirical issues. Chapter 6 reviews the available evidence on the determinants of FDI. Chapter 7 looks at host country effects of MNEs and Chapter 8 is a case study of Ireland, the country which has been most successful in attracting FDI and in using FDI to boost its economic development. Chapter 9 examines the home country effects of FDI. Chapter 10 discusses the main policy issues and Chapter 11 reports the main conclusions and outlines potential areas for future research.

Statistical Appendix

In this appendix we report details of the areas of origin and destination of FDI flows and of the distribution by industry of inward FDI stocks in OECD countries.

Table 1.8. Outward current FDI by area of origin (% of GDP).

	1970 –75	1976 –80	1981 –85	1986 –90	1991 –93	1994 –96	1997 –2001
Advanced countries							
USA	0.73	0.74	0.31	0.49	0.80	1.13	1.47
Europe	0.68	0.70	0.80	1.70	1.32	1.94	6.06
Japan	0.30	0.27	0.42	1.22	0.57	0.44	0.66
Oceania	0.23	0.25	0.60	1.62	0.90	0.99	1.20
Total	**0.65**	**0.66**	**0.54**	**1.14**	**0.97**	**1.32**	**3.17**
Developing countries and transition economies							
Latin America	0.02	0.04	0.08	0.12	0.31	0.37	0.97
Africa	0.05	0.11	0.40	0.28	0.35	0.43	0.30
Asia (excl. Japan)	0.01	0.03	0.11	0.52	0.90	1.47	0.85
Oceania	0.00	0.10	0.08	0.14	0.16	0.02	0.67
Eastern Europe	0.00	0.09	0.01	0.01	0.02	0.08	0.97
Total	**0.02**	**0.05**	**0.14**	**0.32**	**0.53**	**0.89**	**0.78**
World	0.48	0.49	0.41	0.93	0.87	1.21	2.73

Source: UNCTAD, World Bank.

Table 1.9. Inward current FDI by area of destination (% of GDP).

	1970 –75	1976 –80	1981 –85	1986 –90	1991 –93	1994 –96	1997 –2001
Advanced countries							
USA	0.14	0.31	0.52	1.07	0.49	0.85	2.12
Europe	0.67	0.54	0.49	1.08	0.94	1.20	4.46
Japan	0.04	0.02	0.03	0.01	0.04	0.01	0.16
Oceania	1.45	1.13	1.30	2.78	1.89	2.40	203
Total	**0.45**	**0.44**	**0.46**	**0.92**	**0.62**	**0.85**	**2.73**
Developing countries and transition economies							
Latin America	0.96	0.82	0.87	0.95	1.49	2.23	4.43
Africa	0.81	0.32	0.54	0.69	0.85	1.33	2.26
Asia (excl. Japan)	0.25	0.26	0.90	0.95	1.80	2.65	2.02
Oceania	4.99	1.56	3.02	2.77	2.28	2.64	2.21
Eastern Europe	0.00	0.08	0.04	0.03	0.59	1.50	3.42
Total	**0.58**	**0.45**	**0.82**	**0.82**	**1.42**	**2.28**	**2.47**
World	0.44	0.41	0.50	0.85	0.76	1.13	2.93

Source: UNCTAD, World Bank.

Table 1.10. Inward FDI stocks in OECD countries: distribution by industry (% of total shares).

Sector	1982–86	1987–91	1992–94	1995–97	1998–2000
Primary	15.15	12.77	10.15	6.33	5.65
Manufacturing	39.83	38.65	34.75	35.69	39.87
Services	41.21	45.53	54.44	56.46	53.22
Unallocated	2.89	4.99	2.42	0.72	0.29
Total	**100**	**100**	**100**	**100**	**100**

Source: OECD Direct Investment by Industrial Sector, Vol. 2001, Release 01, and OECD International Direct Investment Statistics.

Note: Percentages are based on values in current US dollars.