

## **B. Foreign direct investment from developing countries**

Despite the growing recognition of the importance and growth of FDI by developing countries, its magnitude and geographic and sectoral diversification are difficult to evaluate. In addition to the dearth of reliable data, there is also no strict consistency and comparability between studies and data sources. For example, the total stock of FDI from developing countries in 1980 was estimated in a broad range from \$5 billion to \$10 billion in one source, while a UNCTC study put the total at \$15.3 billion.<sup>2</sup> Furthermore, a number of important home developing countries do not collect or publish data on FDI. Even when official estimates are reported, the data series are inconsistent because of changes in reporting systems; with respect to international comparisons, inconsistency is further aggravated due to different requirements for reporting and different definitions of FDI.

Although similar difficulties arise in measuring and comparing FDI for developed countries, the magnitude of the problem is far more acute in the developing world. Firms based in developing countries may not report FDI to their authorities to evade exchange restrictions or other regulations governing capital outflows, which results in an underestimate of its magnitude. On the other hand, reported data also tend to overestimate FDI by developing countries insofar as they do not separate investments by firms with ultimate parents in developed countries from investments by truly developing-country firms. With these caveats in mind, the following data should be interpreted cautiously.

The FDI stock of developing countries in 34 host countries was estimated at some \$50 billion in 1985, with around \$36 billion invested in developed countries and the balance in the developing world (UNCTC, 1990; Fujita, 1990). Estimates on the basis of data available from 58 host countries put FDI stock of developing countries at \$109 billion in 1990 (table II.1).<sup>3</sup> However, more than one-quarter of FDI by developing countries came from offshore investment sites such as Bermuda, the Cayman Islands, Liberia, the Netherlands Antilles and Panama, where TNCs based in developed countries—not indigenous firms—predominate. Exclusion of those countries reduced the FDI stock of developing countries to \$79 billion in 1990. The share of developing countries in total FDI remained constant at about 6 per cent during the 1980s. The data on share of stock do not indicate a rising trend of FDI from developing countries in the 1980s, but the outflow data do show that FDI originating in developing countries is growing faster, with its share in world FDI outflows rising from 0.7 per cent in 1970-1975 to 3.7 per cent in 1986-1991 (table II.2). The cumulative flow during 1970-1991 is estimated at \$46 billion, about 3 per cent of total world outflows. Thus, FDI from developing countries remains marginal on a global scale.

While outflows from developing countries have continued to grow both in absolute terms and as a share of total flows over time, there have been changes in the relative importance of source regions for FDI. Latin America and Asia accounted for almost the same share in the 1970s, but Latin America's share of developing-country FDI fell from 36 per cent in 1970-1975 to just 7 per cent in 1986-1991 (table II.2). Asia accounted for more than four-fifths of developing-country FDI flows in 1986-1991, compared to about 36 per cent in 1970-1975. This dramatic growth from Asia is due to the surge of FDI from China, which has emerged as one of the largest investors

Table II.1. Stock of foreign direct investment from developing countries in 58 host countries<sup>a</sup>, 1980 and 1990 (Millions of dollars and percentage)

Host country	1980 <sup>a</sup>				1990 <sup>c</sup>			
	Stock from developing countries		Developing countries as percentage of total stock		Stock from developing countries		Developing countries as percentage of total stock	
	Total	Excluding FDI from tax havens	Total	Excluding FDI from tax havens	Total	Excluding FDI from tax havens	Total	Excluding FDI from tax havens
<b>Developed economies</b>	23 706	11 929 <sup>d</sup>	7	4 <sup>d</sup>	65 325	40 164 <sup>d</sup>	6	4 <sup>d</sup>
Australia	953	876	7	7	3 887	..	6	..
Austria	727	..	23	..	456	..	7	..
Belgium and Luxembourg	1 031	..	10	..	1 738	..	7	..
Canada	1 077	331	2	1	2 896	1 654	3	2
Denmark	32	..	8	..	68	..	1	..
Finland	4	..	1	..	310	..	8	..
France	1 310	..	9	..	3 645	3 591	7	7
Germany	1 744	1 425	4	3	3 073	2 578	4	4
Greece	176	..	15	..	176	..	15	..
Italy	29	..	-	..	2 758	..	6	..
Ireland	-	..	-	..	-	..	-	..
Japan	171	154	6	6	2 448	..	13	..
Netherlands	3 098	717	16	4	7 232	2 335	13	4
New Zealand	169	..	7	..	162	..	8	..
Norway	21	..	3	..	34	..	1	..
Portugal	51	50	9	9	147	60	7	4
South Africa	555	..	3	..	470	..	4	..
Spain	210	..	4	..	2 623	1 288	6	3
Sweden	4	..	-	..	65	..	1	..
United Kingdom	1 586	..	5	..	6 452	..	5	..
United States	10 760	2 523	13	..	26 683	9 606	7	2
<b>Developing economies</b>	14 831	12 689 <sup>d</sup>	19	16 <sup>d</sup>	43 391	38 719 <sup>d</sup>	20	19 <sup>d</sup>
<b>Africa and West Asia</b>	1 114	1 114 <sup>d</sup>	15	15 <sup>d</sup>	1 247	1 241 <sup>d</sup>	24	21 <sup>d</sup>
Jordan	-	..	-	..	430	..	30	..
Morocco	135	..	24	..	400	..	39	..
Nigeria	964	..	15	..	255	..	12	..
Turkey	15	..	21	..	162	156	12	12
<b>Asia</b>	10 409	10 251 <sup>d</sup>	30	29 <sup>d</sup>	33 599	33 395 <sup>d</sup>	29	29 <sup>d</sup>
Bangladesh	1	..	2	..	-	..	-	..
China	3 332	3 329	58	58	10 153	10 140	65	..
Hong Kong	65	..	13	..	524	456	18	15
India	53	..	5	..	102	..	9	..
Indonesia	2 112	2 091	21	20	11 648	..	25	..
Malaysia	2 698	..	41	..	3 095	3 034	41	40
Pakistan	132	..	19	..	297	297	27	27
Papua New Guinea	1	..	-	..	2	..	1	..
Philippines	103	90	8	7	190	175	12	11
Korea, Republic of	94	53	8	5	169	213 <sup>c</sup>	3	4 <sup>c</sup>
Singapore	391	..	12	..	615	..	5	..
Sri Lanka	248	163	45	30	414	322	49	38
Taiwan Province of China	982	..	36	.. <sup>c</sup>	3 133	..	28	..
Thailand	199	201 <sup>e</sup>	20	21 <sup>c</sup>	3 257	..	40	..

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(Table II.1, continued)

Host country	1980 <sup>a</sup>				1990 <sup>c</sup>			
	Stock from developing countries		Developing countries as percentage of total stock		Stock from developing countries		Developing countries as percentage of total stock	
	Total	Excluding FDI from tax havens	Total	Excluding FDI from tax havens	Total	Excluding FDI from tax havens	Total	Excluding FDI from tax havens
<i>Latin America</i>	3 308	1 324 <sup>d</sup>	9	3 <sup>d</sup>	8 545	4 079 <sup>d</sup>	9	4 <sup>d</sup>
Argentina	239	101	4	2	411	148	16	2
Bolivia	63	35	15	8	140	59	17	7
Brazil	1 741	448	10	3	2 722	745	7	2
Chile	146	97	16	11	1 795	553	29	9
Colombia	181	94	17	9	330	157	9	5
Ecuador	200	133	28	19	349	203	26	15
El Salvador	39	13	25	8	52	23	25	11
Guatemala	23	8	52	20	23	9	33	13
Mexico	42	..	1	..	1 708	..	6	..
Panama	16	..	4	..	33	..	7	..
Paraguay	111	..	45	..	93	..	37	..
Peru	139	52	15	6	287	91	23	7
Uruguay	96	49	29	15	120	79	26	17
Venezuela	276	122	17	8	482	177	13	5
<i>Central and Eastern Europe</i>								
<i>Commonwealth of Independent States</i>	..	..	..	..	424	417 <sup>d</sup>	9	9 <sup>d</sup>
Czechoslovakia	..	..	..	..	312	..	10	..
Hungary	..	..	..	..	5	..	4	..
Poland	..	..	..	..	62	59	7	7
Romania	..	..	..	..	6	5	2	1
<i>Total above</i>	38 538	24 619 <sup>f</sup>	9	6 <sup>f</sup>	109 141	79 295	8	6

Source: TCMD, based on UNCTC, *World Investment Directory 1992: Volume I Asia and the Pacific* (New York, United Nations publication, Sales No. E.92.II.A.11); TCMD, *World Investment Directory 1992: Volume II Central and Eastern Europe* (New York, United Nations publication, Sales No. E.93.II.A.1), *Volume III Developed Countries* (forthcoming), *Volume IV Latin America and the Caribbean* (forthcoming); and official national sources.

a The data are converted into dollars by using end-of-year exchange rates.

b 1986 data for Uruguay; 1984 data for China and Paraguay; 1982 data for France and South Africa; 1981 data for Ireland and United Kingdom; 1979 data for Turkey and Chile; 1978 data for Greece.

c 1989 data for Australia, Canada, Finland, France, Germany, Italy, Netherlands, Spain, United Kingdom, Pakistan, Philippines, Singapore, Argentina, Panama and Uruguay; 1988 data for Austria, Belgium and Luxembourg, Norway, Portugal, Sweden, Bangladesh, India, Papua New Guinea, Paraguay, China, Malaysia and Sri Lanka; 1986 data for Ireland and South Africa; 1985 data for New Zealand; and 1978 data for Greece.

d In calculating regional total, total FDI is used for those countries for which FDI from tax havens is not available.

e FDI stock excluding that from tax-haven countries/territories is larger than non-adjusted FDI due to negative stock from them.

f Excludes Central and Eastern Europe.

in developing countries, and to sharply accelerated outflows from newly industrializing economies such as the Republic of Korea and Taiwan Province of China.

But the usefulness of the above flow data, drawn mainly from IMF balance-of-payment statistics, is limited because they cannot be broken down by destination or sector. For some countries, outward FDI statistics are available directly from national sources. In other cases, the data are extrapolated from the source distribution of inward FDI, for which estimates are more widely available (table II.3).<sup>4</sup> Economies such as Brazil, Hong Kong, Malaysia, the Republic of Korea, Singapore and Taiwan Province of China had invested each more than \$1 billion by 1990 abroad. Hong Kong is probably the largest investor among developing countries: by the late 1980s, it had invested a cumulative \$19 billion—far more than FDI as of the late 1980s from such developed countries as Belgium and Luxembourg (\$13.2 billion as of 1988), Denmark (\$8.7 billion as of 1990), Finland (\$5.8 billion as of 1988), Norway (\$2.8 billion as of 1988), Austria (\$1.4 billion as of 1988), New Zealand (\$800 million as of 1985) and Portugal (\$200 million as of 1988). However, as one study noted (Chen 1983, pp. 91-92), more than half of Hong Kong's FDI is estimated to have been made by non-indigenous firms.

Table II.2. Outflows of foreign direct investment from developing countries, 1970-1991<sup>a</sup>  
(Millions of dollars)

Home	1970-1975	1976-1980	1981-1985	1986-1991	1970-1991
	(Period average)				(Cumulative)
Africa	9	82	60	128	1 530
Latin America	48	225	219	402 <sup>b</sup>	4 921 <sup>b</sup>
Middle East	19	132	114	549 <sup>c</sup>	4 636 <sup>c</sup>
Asia	56	330	663	5 121 <sup>d</sup>	36 024 <sup>d</sup>
Oceania	1	5	-3	-24	-123
Developing-country total	133	774	1 053	6 035	46 138
World total	19 796	43 186	47 561	162 268	1 546 121
Developing countries as percentage of world	0.7	1.8	2.2	3.7	3.0
Least developed countries as percentage of developing country total	1.3	0.5	0.1	0.2	0.2
Oil exporting developing countries as percentage of developing country total	19.5	26.4	16.2	11.9	13.8

Source: TCMD, based on IMF, balance-of-payments tape retrieved in October 1992 and official national sources.

a Data not available from the IMF have been supplemented by, or estimated from, national sources: data for India (1971-1981), Malaysia, Peru and Taiwan Province of China are supplemented from national sources of outward flows; data for India (1982-1991), Indonesia, Hong Kong, Nigeria, Saudi Arabia and UAE are taken from inflows in the United States; data for Mexico are taken from inflows in the United States, Brazil, Chile, Colombia, Ecuador, El Salvador, Guatemala, Peru and Venezuela.

b Brazil is not included for 1989-1991 due to the unavailability of data.

c Does not include data for 1989-1991 due to unavailability.

d Malaysia is not included for 1988-1991 due to the unavailability of data.

Table II.3. Outward stock of foreign direct investment from selected developing countries<sup>a</sup>  
(Millions of dollars and percentage)

Home country		Host countries					
		Total <sup>b</sup>		Developed countries		Developing countries	
		Volume	Share	Volume	Share	Volume	Share
<i>Asia</i>							
China <sup>c</sup>	1981	40	100	14	34	26	66
	1987	542	100	387	71	154	28
Hong Kong	1980 <sup>d</sup>	5 607	100	468	8	5 139	92
	1990 <sup>e</sup>	18 930	100	3 369	18	15 538	82
India <sup>f</sup>	1985	96	100	1	1	95	99
	1988	76	100	6	8	70	92
Indonesia	1980 <sup>g</sup>	6	100	1	17	5	83
	1990 <sup>h</sup>	183	100	94	51	81	44
Korea, Republic of <sup>i</sup>	1976	57	100	14	25	42	75
	1980	142	100	45	32	97	68
	1991	3 373	100	1 899	56	1 451	43
Malaysia <sup>j</sup>	1976	18	100	..	..	..	..
	1980	406	100	..	..	..	..
	1988	1 489	100	..	..	..	..
Pakistan <sup>k</sup>	1980	40	100	6	16	34	84
	1990	244	100	13	5	231	95
Philippines <sup>l</sup>	1980	171	100	..	..	..	..
	1988	154	100	..	..	..	..
Singapore <sup>m</sup>	1981	819	100	71	9	748	91
	1989	1 554	100	321	21	1 232	79
Taiwan Province of China <sup>n</sup>	1980	101	100	57	57	44	43
	1991	4 733	100	2 340	49	2 393	51
Thailand <sup>o</sup>	1980	13	100	6	47	7	53
	1990	404	100	146	36	216	53
<i>Latin America</i>							
Argentina	1980 <sup>p</sup>	990	100	859	87	131	13
	1990 <sup>q</sup>	960	100	753	78	206	21
Brazil <sup>r</sup>	1977	288	100	243	84	45	16
	1980	652	100	483	74	169	26
	1990	2 397	100	1 296	54	1 101	46
Chile <sup>s</sup>	1990	201	100	23	11	178	89
Colombia <sup>t</sup>	1975	43	100	12	28	31	72
	1980	136	100	30	22	106	78
	1990	402	100	99	25	303	75
Mexico	1980 <sup>u</sup>	185	100	143	77	43	23
	1990 <sup>t</sup>	720	100	670	93	50	7

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(Table II.3, continued)

Home country		Host countries					
		Total <sup>b</sup>		Developed countries		Developing countries	
		Volume	Share	Volume	Share	Volume	Share
Peru <sup>*</sup>	1980	3	100	-	-	3	100
	1990	64	100	13	20	51	80
Venezuela	1980 <sup>u</sup>	185	100	26	14	160	86
	1990 <sup>v</sup>	837	100	679	81	156	19
<i>Middle East</i>							
Iran (Islamic Republic of)	1980 <sup>w</sup>	716	100	646	90	69	10
	1990 <sup>x</sup>	1 232	100	1 120	91	109	9
Kuwait <sup>y</sup>	1987	5 373	100	-	-	5 373	100
Saudi Arabia	1980 <sup>z</sup>	334	100	232	69	103	31
	1990 <sup>aa</sup>	2 249	100	1 959	87	290	13

Source: TCMD, based on UNCTC, *World Investment Directory 1992: Volume I Asia and the Pacific* (New York, United Nations publication, Sales No. E.92.II.A.11); TCMD, *World Investment Directory 1992: Volume II Central and Eastern Europe* (New York, United Nations publication, Sales No. E.93.II.A.1), *Volume III Developed Countries* (forthcoming), *Volume IV Latin America and the Caribbean* (forthcoming) and *Volume V Africa and West Asia* (forthcoming); and official national sources.

a Figures for the countries with an asterisk are reported by their (home) countries. The data are converted into dollars by using end-of-year exchange rates.

b Includes FDI in Central and Eastern Europe. Therefore, sum of host developed and host developing countries may not add up to the total.

c Based on cumulative approved flows since 1979.

d Sum of inward FDI stock from Hongkong in the following host countries: Australia (1980), Germany (1980), Canada (1980), Japan (1980), Portugal (1980), United States (1980), Bangladesh (1980), China (1984), Indonesia (1980), Malaysia (1980), Pakistan (1980), Philippines (1980), Republic of Korea (1980), Sri Lanka (1980), Taiwan Province of China (1980), Thailand (1980), Argentina (1980), Brazil (1980), Guatemala (1980) and Venezuela (1980).

e Sum of inward FDI stock from Hongkong in the following host countries: Australia (1989), Canada (1989), France (1989), Germany (1989), Japan (1990), Portugal (1988), Spain (1989), United States (1990), Bangladesh (1988), China (1987), Indonesia (1990), Malaysia (1987), Pakistan (1989), Philippines (1989), Republic of Korea (1990), Sri Lanka (1987), Taiwan Province of China (1990), Thailand (1990), Turkey (1990), Argentina (1989), Brazil (1990), Chile (1990), Colombia (1990), Commonwealth of Independent States (1990), Hungary (1990), Poland (1990) and Romania (1990).

f Estimated by using the share of each region in the total cumulative value of Indian investments in joint ventures abroad as at the end of each year and applying it to the total stock figures reported by the Ministry of Commerce.

g Sum of inward FDI stock from Indonesia in the following host countries: Australia (1980), Germany (1980), United States (1980), China (1984), Malaysia (1980) and Thailand (1980).

h Sum of inward FDI stock from Indonesia in the following host countries: Germany (1989), Spain (1989), United States (1990), China (1987), Hong Kong (1990), Malaysia (1987), Pakistan (1989), Thailand (1990) and Commonwealth of Independent States (1990).

i Based on cumulative realized outflows since 1968.

j Investments in or claims on branches, subsidiaries and affiliated enterprises abroad and investments in other companies abroad less foreign liabilities to affiliated enterprises abroad.

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(Table II.3, continued)

- k Based on cumulative outflows since 1972.
- l Based on cumulative outflows since 1970. Outflows refer to only new equity, that is, remittance by residents of the Philippines for investment in foreign firms or enterprises to create or expand investments.
- m Based on only the amount of paid-up shares of overseas subsidiaries and associates and the net amount due from overseas branches.
- n Based on cumulative approved outflows since 1959. Approved foreign direct investment outflows are substantially lower than those compiled for the balance-of-payments statistics. Cumulative outflows based on the former during 1980-1991 are less than one-quarter of the value reported in the balance-of-payments statistics. Therefore, a significant volume of outward investments is considered to be unreported in the approved outflow data.
- o Based on cumulative outflows since 1978. Sum of developed and developing countries does not add up to total due to exclusion of unspecified countries.
- p Sum of inward FDI stock from Argentina in the following host countries: Germany (1980), France (1982), Denmark (1980), Netherlands (1980), United States (1980), Bolivia (1980), Brazil (1980), Colombia (1980), Ecuador (1980), Paraguay (1984), Uruguay (1986) and Venezuela (1980).
- q Sum of inward FDI stock from Argentina in the following host countries: Australia (1989), France (1989), Germany (1989), New Zealand (1985), Portugal (1988), Spain (1989), United States (1990), Turkey (1990), Bolivia (1990), Brazil (1990), Chile (1990), Colombia (1990), Ecuador (1990), Peru (1990), Paraguay (1988), Uruguay (1989), Venezuela (1990), Commonwealth of Independent States (1990) and Poland (1990).
- r Excludes oil exploration by Petrobras (national oil corporation), the largest investor.
- s Sum of inward FDI stock from Mexico in the following host countries: Australia (1980), Germany (1980), France (1982), United States (1980), Thailand (1980), Argentina (1980), Brazil (1980), Colombia (1980), Ecuador (1980) El Salvador (1980), Guatemala (1980), Peru (1980) and Venezuela (1980).
- t Sum of inward FDI stock from Mexico in the following host countries: Canada (1989), France (1989), Germany (1989), Portugal (1988), Spain (1989), United States (1990), Argentina (1989), Brazil (1990), Chile (1990), Colombia (1990), Ecuador (1990), El Salvador (1990), Guatemala (1985), Peru (1990) and Venezuela (1990).
- u Sum of inward FDI stock from Venezuela in the following host countries: Canada (1980), Portugal (1980), United States (1980), Argentina (1980), Brazil (1980), Colombia (1980), Ecuador (1980), El Salvador (1980), Guatemala (1980), Panama (1980), Peru (1980) and Venezuela (1980). Inward foreign direct investment in Venezuela is by foreign companies in Venezuela.
- v Sum of inward FDI stock from Venezuela in the following host countries: Canada (1989), Germany (1989), Portugal (1989), Spain (1989), United States (1990), Argentina (1990), Brazil (1990), Chile (1990), Colombia (1990), Ecuador (1990), El Salvador (1990), Guatemala (1985), Panama (1989), Paraguay (1988), Peru (1990) and Commonwealth of Independent States (1990).
- w Sum of inward FDI stock from the Islamic Republic of Iran in the following host countries: Australia (1980), Germany (1980), France (1982), Denmark (1980), United States (1980), Pakistan (1980), Republic of Korea (1980), Sri Lanka (1980), Thailand (1980) and Brazil (1980).
- x Sum of inward FDI stock from the Islamic Republic of Iran in the following host countries: France (1989), Portugal (1988), Spain (1989), Pakistan (1989), Republic of Korea (1990), Sri Lanka (1987), Turkey (1990), Brazil (1990), Commonwealth of Independent States (1990) and Romania (1990).
- y Cumulative loans by the Kuwait Fund for Arab Development for investment abroad for the period January 1962-June 1987. Unallocated FDI is included in developing countries.
- z Sum of inward FDI stock from Saudi Arabia in the following host countries: Germany (1980), United States (1980), Pakistan (1980), Republic of Korea (1980), Thailand (1980), Argentina (1980), Brazil (1980), Paraguay (1980) and Morocco (1980).
- aa Sum of inward FDI stock from Saudi Arabia in the following host countries: Austria (1988), Canada (1989), Germany (1989), Portugal (1988), Spain (1989), United States (1990), Bangladesh (1988), Pakistan (1989), Philippines (1989), Republic of Korea (1990), Sri Lanka (1987), Morocco (1988), Turkey (1990), Argentina (1990), Brazil (1990), Paraguay (1988), Commonwealth of Independent States (1990) and Romania (1990).

Among the 19 developing countries surveyed for which the destination of outward FDI is available (table II.3), Argentina, Brazil, the Islamic Republic of Iran, Mexico and Saudi Arabia have invested more in developed countries than in developing countries. By the late 1980s, China, Indonesia, the Republic of Korea and Venezuela also had placed more than one-half of their investments in developed countries. However, developing countries continued to attract substantial portions of investment from these countries as well, accounting for about 30 per cent of FDI by China and 40-45 per cent of outflows from Brazil, Indonesia and the Republic of Korea. Such economies as Colombia, Hong Kong, India, Pakistan, Peru and Singapore placed a remarkably high share of their FDI in developing countries.

Although some developing countries spread their FDI throughout the world, most developing countries concentrate their investments in a limited number of countries. About three-quarters of FDI from Chile, China, Colombia, Hong Kong, the Islamic Republic of Iran, Peru, Saudi Arabia and Thailand and were concentrated in three host countries in the late 1980s (table II.4). Brazil, the Republic of Korea, Singapore and Taiwan Province of China showed more diversified geographical orientations, making investments exceeding \$50 million in each of 8, 11, 10 and 7 countries, respectively. While India and Pakistan show the lowest concentration ratios, their FDI in specific host countries is too small to be interpreted as a genuine geographical diversification of investment.

Neighbouring countries are still important hosts to FDI from developing countries. Eighty-two per cent of FDI stock from Hong Kong (1990), 66 per cent from Singapore (1989) and 53 per cent from Thailand (1990) were located in other East, South and South-East Asian countries (excluding Japan); also in 1990, 72 per cent of Colombian and 74 per cent of Peruvian FDI went to Latin American and Caribbean host countries. For Asian newly industrializing economies, ASEAN is an important host area: at least one ASEAN member ranks among the three largest host countries for Hong Kong, the Republic of Korea, Singapore and Taiwan Province of China (table II.4). In Indonesia, FDI from Hong Kong, the Republic of Korea and Singapore was nearly three times as high as that from the United States by 1991, though still only three-quarters as high as Japanese FDI. In Malaysia, Singapore was the largest investor and accounted for about 30 per cent of FDI stock in 1987. The share of the four Asian newly industrializing economies in total inward FDI stock increased significantly in the Philippines and Thailand during the 1980s (table II.5).

By 1990, 19 countries (11 developed and eight developing) had absorbed more than \$1 billion each in FDI from developing countries. The United States is the largest host country to FDI from developing countries, absorbing about \$11 billion in 1980 and \$27 billion in 1990 (see table II.1). It accounted for some one-quarter of total FDI stock from developing countries in both years. Note, however, that more than \$8 billion in 1980 and \$17 billion in 1990 were invested from tax-haven countries/territories; if these are excluded from developing-country FDI, the United States share as host country decreases to 6-10 per cent of the total stock. Brazil's FDI stock from developing countries shrinks to about \$700-800 million if investment from tax-haven countries/territories is excluded. In the Netherlands, the third-largest host country, about two-thirds of developing-country FDI stock in 1989 were from the Netherlands Antilles.



**Table II.4. The concentration ratio of three largest host countries for foreign-direct-investment stock from selected developing countries**

<i>Home country</i>		<i>Three largest host countries in order of magnitude of FDI stock</i>	<i>Concentration ratio (Percentage)</i>
<i>Asia</i>			
China <sup>a</sup>	1984	United States, Hong Kong, Brazil	76
	1987	Australia, Hong Kong, United States	77
Hong Kong <sup>b</sup>	1980	China, Indonesia, Singapore	75
	1990	China, Indonesia, United States	72
India	1985	Indonesia, Taiwan Province, Malaysia	43
	1988	Indonesia, Senegal, Kenya	38
Korea, Republic of	1980	United States, Indonesia, Saudi Arabia	51
	1991	United States, Indonesia, Canada	64
Pakistan	1980	Saudi Arabia, United Kingdom, Singapore	57
	1990	Saudi Arabia, Libyan Arab Jamahiriya, United Kingdom	54
Singapore <sup>c</sup>	1981	Malaysia, Hong Kong, Australia	75
	1989	Malaysia, Hong Kong, United States	58
Taiwan Province of China	1980	United States, Philippines, Indonesia	62
	1991	United States, Malaysia, Thailand	57
Thailand	1980	United States, Hong Kong, Singapore	97
	1990	Hong Kong, United States, Singapore	79
<i>Latin America</i>			
Brazil	1980	United States, Argentina, Paraguay	73
	1990	United States, Cayman Islands, United Kingdom	69
Chile	1990	Panama, Argentina, Peru	73
Colombia	1980	Panama, United States, Venezuela	69
	1990	Panama, United States, Venezuela	73
Peru	1980	Venezuela, Ecuador, Colombia	99
	1990	Bolivia, Cayman Islands, United States	79
<i>Middle East</i>			
Iran (Islamic Republic of)	1980	Germany, France, Brazil	95
	1990	France, Brazil, Turkey	99
Saudi Arabia	1980	United States, Morocco, Brazil	94
	1990	United States, Morocco, Canada	90

Source: TCMD, based on UNCTC, *World Investment Directory 1992: Volume I Asia and the Pacific* (New York, United Nations publication, Sales No. E.92.II.A.11); TCMD, *World Investment Directory 1992: Volume III Latin America and the Caribbean* (forthcoming) and *Volume IV Africa and West Asia* (forthcoming); and official national sources.

- a Based on cumulative approved flows since 1979.
- b Based on inward stock reported by host countries.
- c Based on only the amount of paid-up shares of overseas subsidiaries and associates and the net amount due from overseas branches.

In general, the data show that developing countries are still important host countries to FDI from the developing world. China, Indonesia, Malaysia, Taiwan Province of China, Thailand and Mexico each have apparently attracted more than \$1 billion of FDI from developing countries (excluding the tax havens) by 1990. In China, Malaysia, Morocco and Sri Lanka, more than 40 per cent of inward FDI is owned by developing countries. Foreign direct investment from developing countries (excluding the tax havens) accounts for about 19 per cent of total inward FDI in the developing world—nearly five times higher than their share of investment in host developed countries, at 4 per cent. While the developing world remains an important host target for developing-country investors, the share of FDI in developing countries (excluding FDI from the tax havens) has fallen to less than one-half (48 per cent) in all host countries by 1990. That represents a decline by a few percentage points from 1980, when FDI in host developing countries was equivalent to more than one-half (51 per cent) of FDI in all host countries.

The above figures point to the growing importance of developed countries as host area to FDI from developing countries, paralleled by a shift in FDI away from the developing world. While aggregate annual growth in developing-country FDI (excluding FDI from the tax havens) is only

Table II.5. Foreign direct investment by Asian newly industrializing economies in ASEAN<sup>a</sup>  
(Millions of dollars)

Home country/territory	ASEAN as host countries							
	Indonesia <sup>b</sup>		Malaysia		Philippines <sup>c</sup>		Thailand <sup>d</sup>	
	1980	1991	1980	1987	1980	1989	1980	1990
Korea, Republic of	..	1 956	4	5	6	4	4	46
Hong Kong	1 061	3 934	533	424	54	116	119	910
Singapore	135	1 530	1 805	2 200	5	12	57	535
Taiwan Province of China	..	..	33	36	3	17	2	651
<b>Total</b>	1 196	7 420	2 374	2 665	67	148	181	2 142
Percentage as total inward stock	11.6	14.0	36.4	35.1	5.5	16.1	18.5	26.4
<i>Memo:</i>								
Japan	3 462	9 959	1 145	1 525	206	228	285	3 257
United States	437	2 687	416	465	669	873	322	1 370

Source: Based on UNCTC, *World Investment Directory 1992: Volume I Asia and the Pacific* (New York, United Nations publication, Sales No. E.92.II.A.11) and official national sources.

a Based on stock of foreign direct investment in each host country. The data are converted into dollars by using end-of-year exchange rates.

b Based on cumulative approved inflows since June 1967 except the total inward stock which is based on cumulative implemented inflows since June 1967

c Based on cumulative inflows since February 1970.

d Based on cumulative inflows since 1970.

slightly higher for host developed (13 per cent) than host developing (12 per cent) countries (see table II.1), the shift of FDI towards developed countries is dramatic in individual countries. For example, China invested just one-third of its outward FDI stock in developed countries in 1981; by 1987, that ratio had surged to more than 70 per cent. Similarly, host developed countries attracted only 25 per cent of FDI from the Republic of Korea in 1976; that proportion had doubled to 50 per cent by 1983, reaching 56 per cent in 1991. Indonesia, Singapore, Mexico and Venezuela also showed rising FDI in developed countries during the 1980s.

Data on the sectoral breakdown of outward FDI from developing countries are more difficult to obtain. Thirteen countries provide outward FDI data that can be disaggregated geographically from their own national sources, and the sectoral distribution of FDI stock is available for just eight countries (table II.6). Investment in manufacturing is significant for China, India and Taiwan Province of China, accounting for more than one-half of total investment in the late 1980s. The bulk of investment from Malaysia and Thailand has been in services, especially the financial sector. For example, about one-half of Thailand's investment stock was found in Hong Kong and Singapore in 1990, the leading financial centres of South-East Asia.

Table II.6. Sectoral distribution of foreign-direct-investment stock from selected developing countries

Host country		Primary	Secondary	Tertiary	Total
		(Percentage)			(Millions of dollars)
China	1981	-	5	95	40
	1987	21	56	23	542
Colombia <sup>a</sup>	1970	5	42	43	21
	1980	3	10	85	136
	1990	6	19	75	402
India	1985	2	87	11	96
	1988	3	82	15	76
Korea, Republic of	1970	82	-	18	5
	1980	22	18	60	142
	1991	20	49	31	3 373
Malaysia	1970	67	-71	105	5
	1980	7	-2	95	406
	1988	6	-4	98	1 489
Peru	1980	2	13	85	3
	1990	1	12	87	64
Taiwan Province of China	1980	4	86	10	101
	1991	-	60	39	4 733
Thailand	1980	3	1	97	13
	1990	-	42	58	404

Source: Based on UNCTC, *World Investment Directory 1992: Volume I Asia and the Pacific* (New York, United Nations publication, Sales No. E.92.II.A.11); TCMD, *World Investment Directory 1992: Volume III Latin America and the Caribbean* (forthcoming); and official national sources.

a Total does not add up to 100 because unspecified industries are excluded.

### **C. Home-country influences on outward foreign direct investment**

As noted previously, the strategy, motivation and characteristics of TNCs are influenced by the location advantages of the home country. A more germane consideration is how such location advantages have influenced the evolution of ownership advantages of developing-country TNCs, as well as their spread and growth. The theory and evidence on developing-country TNCs suggest that the nature, growth and composition of their overseas investments reflect many factors that affected their activities at home. In the previous section, data were presented without qualification for home country conditions; this section explores this factor, which has a direct bearing on an analysis of the TNC impact on home countries.

The main point at issue is whether growth in a country's FDI signifies continuous expansion of its domestic industrial and other capabilities, as the ownership-advantage theory would suggest, or whether it reflects a relatively static base of advantages relocated abroad in response to structural shifts in competitiveness. These alternative explanations correspond to the interpretations of United States and Japanese investments in the well-known controversy over the Kojima hypothesis (Kojima, 1978). This hypothesis argued that United States TNCs were large, oligopolistic, technologically sophisticated and trade-displacing, while Japanese TNCs were small, competitive, low-technology and trade-promoting. Its conclusion was that the Japanese model was intrinsically "better" for host countries.

Welfare aspects aside, this interpretation of Japanese investments was heavily influenced by the operations of enterprises that had been losing competitiveness and had invested in industries in host countries that had gained comparative advantage in simple, labour-intensive activities. This manufacturing activity could survive only by relocating part of its activity to areas with lower labour costs; domestically, the firms or productive resources shifted to more sophisticated activities, where Japan had developed competitive strengths. This adjustment extended over a number of years, and is now largely completed for many enterprises. In the meantime, larger high-technology Japanese firms launched "United States-style" FDI at an accelerated pace in the 1980s, and today Japan's international production is overwhelming in sophisticated, complex activities. A significant part of this is contributed by smaller firms, many as suppliers and subcontractors to the large overseas investors—but their ownership advantages rest on a generation of advanced technology rather than the relocation of mature technologies.

This structural shift in the pattern of Japanese investments has implications for the evolution of investments from newly industrializing economies. Are TNCs from different home countries at the early or late stage of development? How rapidly are they shifting—if at all—from one to the other? Do they possess the base of capability development that would enable them to generate the ownership advantages needed to achieve the shift? As noted, answers to questions like these have important repercussions on the main subject of this study: the impact of international operations on the home economy.

While it is not feasible to investigate such issues in detail for all home countries here, it would be useful to examine a smaller sample of developing-country investors. These investors can be separated into three groups based on strategic orientation: the four established newly industrializing economies of East Asia; other leading investors relatively large in size but influenced by past or present inward-oriented market policies in their home countries, such as Argentina, Brazil, India and Mexico; and countries at an earlier stage of internationalization but already emerging as major foreign investors, such as Indonesia and Malaysia.

This section examines the influence of the home country on outward investment—primarily, what influence the location advantages of the home country have had on the development of ownership advantages of domestic firms. A second issue that this raises is whether Government policy encourages these firms to seek overseas markets or hinders that effort. The countries surveyed show a great variety in the degree of promotion of heavy industry, the control exercised over domestic resource allocation and reliance on inward direct investment. Thus, their experience is relevant to a range of other developing countries that have adopted different development strategies.

### **1. Leading investors**

The four newly industrializing economies of East Asia—Hong Kong, Singapore, Taiwan Province of China and the Republic of Korea—easily rank among the leading overseas investors, and have emerged as models of dynamism and success for other developing countries to emulate.

Firms from these countries generally have begun the process of internationalization, and are now poised at a juncture similar to that of Japanese TNCs in the 1960s. Typically, they have invested in several individual overseas markets that offered factor conditions similar to their own, and in which they did not have to compete head-on with developed-country TNCs. Now some TNCs from developing countries, having acquired greater technological competence, are attempting to compete with developed-country TNCs directly, often in their home countries. From a strategic perspective, they have effectively reoriented themselves to pursue a global strategy; from a technological perspective, their ownership advantages are now sufficient so as not to require the protection afforded by inward-oriented markets. It would be reasonable to argue that the very fact that these firms are successfully moving into markets at greater "psychic distance" and with different factor conditions proves that their ownership advantages are now of sufficient magnitude to compensate for the disadvantages associated with operating in an unfamiliar environment.

#### **(a) Hong Kong**

Hong Kong has been by far the largest developing-economy investor in Asia and probably in the developing world, investing nearly \$19 billion by 1990 (see table II.3). Hong Kong investments initially were spread widely through neighbouring countries, but by the mid-1980s China had assumed an overwhelming position as a recipient. According to data from the Government of China on actual FDI inflows from 1984-1988, Hong Kong investment came to \$6.5 billion, 61 per cent

of total inflows of \$10.8 billion. More than half of Hong Kong FDI was invested in China by the late 1980s.

Part of Hong Kong's investment in China in fact represents capital flows from other countries. These include Taiwan Province of China, whose investors are prohibited from FDI in China but frequently channel capital through Hong Kong; and the "Hong", large trading companies based in Hong Kong but essentially British in management like Jardine and Swire. However, the great bulk of the activity in China is in light manufacturing for export, which is predominantly owned by indigenous Hong Kong entrepreneurs (Whitmore *et al.*, 1989). Especially for small firms—93 per cent of Hong Kong firms employed less than 50 persons in 1988<sup>5</sup>—China is an attractive site for labour-intensive and low-technology production.

Indonesia, Taiwan Province of China, Singapore, Malaysia and Thailand are the other main developing-country destinations for Hong Kong investments. As a result of the political developments in 1989 in China, Hong Kong firms have increasingly diversified their production to South-East Asia and developed countries, in particular North America. In Indonesia, for example, more than \$1 billion in FDI from Hong Kong was approved in 1990.<sup>6</sup> About one-fifth of FDI was in developed countries by the late 1980s, concentrated primarily in North America and specifically in the United States. Recent major foreign investments are summarized in table II.7, which points to increasing investments in developed countries (see also table II.3).

Information is limited on the sectoral distribution of FDI. While such services as finance, real estate (property- or hotel-related) and trading have been historically significant in Hong Kong's investments, it is reasonable to expect that manufacturing has maintained the dominant role documented for the early 1980s (Chen, 1983). Within manufacturing, there is a fair spread of activities, but the bulk is concentrated in traditional industrial strengths such as textiles, garments, light electronics and plastic products. The main exception is resource-seeking investment in chemicals, basic metals, paper and non-metallic minerals. Overall, the competitive edge of Hong Kong enterprises rests in managerial and marketing advantages acquired in making and selling light consumer goods, its main export products (Chen, 1983).

That such advantages exist, and are backed by dynamic entrepreneurship, is borne out by the sheer size of Hong Kong's overseas investment stock. The geographical distribution of its FDI reflects ethnic and locational (proximity and labour cost) factors: the "Chinese connection" is pervasive. The magnitude of outward investment is so large that Hong Kong companies may employ some 2 million workers in China alone—an estimated 1 million were employed in 1987 by some 2,000 Hong Kong-owned firms in Guangdong Province<sup>7</sup>—compared to around 900,000 employed within Hong Kong. Assuming other overseas locations account for an additional 1 million employees, Hong Kong firms employ around three-and-a-half times more people abroad than at home—probably the highest degree of internationalization of production anywhere in the world.

The conventional approach to TNCs suggests that an economy with such a powerful international projection in manufacturing would possess a diversified industrial base with considerable depth and technological capability, as the investment-development path suggests. This is clearly not the case with Hong Kong. Its advantages are based on mastery of imported technologies

for light consumer-goods assembly and manufacture. Most of its firms are very small by international standards, conduct little or no research and development and lack the ability to diversify into more complex, technologically demanding activities.<sup>8</sup> This does not affect their ability to set up facilities overseas as wages, rents and other domestic costs rise, using their production efficiency and specialized skills and contacts to compete internationally. What it does restrict is the ability of Hong Kong's domestic industrial structure to upgrade and deepen in response to rising costs. Some upgrading does occur, as with Hong Kong garment makers' shift in specialization from low- to

Table II.7. Hong Kong: major foreign direct investment since 1986

<i>Investor</i>	<i>Year</i>	<i>Acquisitions</i>	<i>Host country</i>	<i>Invested amount</i>
Y.K. Pao Group	1986	Standard Chartered Bank	United Kingdom	£200 million
Hutchison Whampoa <sup>a</sup>	1986	Parson PLC <sup>b</sup> (4.99 per cent)	United Kingdom	HK\$ 600 million
Hutchison Whampoa <sup>a</sup>	1986	Husky Oil (52 per cent)	Canada	HK\$ 3.6 billion
Hutchison Whampoa <sup>a</sup>	1987	Cable & Wireless <sup>b</sup> (4.9 per cent)	United Kingdom	HK\$ 3 billion
Hongkong and Shanghai Banking Corp.	1987	Marine Midland Bank (remaining 47 per cent)	United States	\$800 million
Dickson Concepts Ltd.	1987	S.T. Dupont distribution network	France	\$53 million
Semi-Tech Microelectronics (Far East) Ltd.	1988	Consumer Distributing Co.	United States	\$110 million
WOH Corporation <sup>c</sup>	1988	Omni Hotels	United States	..
Semi-Tech Microelectronics (Far East) Ltd.	1989	Singer Sewing Machine Co.	United States	\$269 million
New World Hotels (Holdings) Ltd.	1989	Ramada Inn hotel chain <sup>d</sup>	United States	\$540 million
Jardine Matheson Holdings <sup>e</sup>	1989	Financial Guardian Group	United States	\$70 million
Hutchison Whampoa <sup>a</sup>	1989	Digital Mobile Communications Ltd.	United States	\$68 million
Li Kashing Group <sup>f</sup>	1990	Columbia Savings & Loan Association <sup>g</sup> (50 per cent)	United States	\$150 million
Hutchison Whampoa <sup>a</sup>	1991	Felixstowe Port (75 per cent)	United Kingdom	\$153 million
Hong Kong and Shanghai Banking Corp. <sup>h</sup>	1992	Midland Bank (remaining 85.3 per cent)	United Kingdom	£2-3 billion

Source: TCMD, based on various news accounts.

a Owned by the Li Kashing Group.

b Sold later.

c Owned by Wharf (Holdings) Ltd., one of the Y.K. Pao Group's companies.

d Sold immediately to Ramada Inns in the United States.

e The headquarters has been registered in Bermuda since 1984.

f Purchase by three companies of Li Kashing.

g Owned by Gordon Investment Corp. of Canada.

h Purchase through HSBC Holding plc, a holding company of Hong Kong and Shanghai Banking Corp. which purchased already 14.7 per cent of equity of Midland Bank in 1987.

high-quality products. But such enhancements are limited in comparison to the Republic of Korea, which has been able to diversify into much more heavy, complex industry.

Hong Kong's economic structure has been shaped by its unique history as a trade entrepot that has reaped the spillover benefits from the presence of large British trading and service companies. Its quality education structure, stable administration and laissez-faire economic policies have been important factors in its development; so too was the immigration of large numbers of skilled textile engineers and entrepreneurs from Shanghai. Hong Kong's skill base and trading background allowed it to enter and master rapidly "easy" technologies for serving world markets. However, its lack of explicit support for industrial deepening and technological activity constricted its capability development along specialized and narrow lines, both by activity and by depth of technical knowledge. As Edward Chen (1989, pp. 211-212) argued:

"In most respects, industrial diversification in Hong Kong has been slower than most of our competitors, viz., South Korea, Taiwan and Singapore. The technological base is also less advanced and sophisticated, and Hong Kong lacks many supporting industries to enhance further development of our "older" industries such as electronics and plastics. This is largely the result of the Hong Kong government's non-intervention policy in Hong Kong's industrial development in the past. While it is true that such a non-intervention policy was probably the best for Hong Kong when Hong Kong was undergoing an early stage of export-oriented industrialization in which labour-intensive products were the major exports, it is definitely time now for the government to reconsider such a policy.... With changing comparative advantage, Hong Kong has to diversify into higher technology and higher value-added products and industries".

This constraint puts greater pressure on Hong Kong to internationalize its production than an economy of similar size but with greater technological depth, like Switzerland. Switzerland has managed to retain a strong manufacturing and exporting base through a constant upgrading of its activities, while simultaneously setting up foreign production facilities.

Hong Kong faces the prospect of being forced to wind down its industrial sector slowly, specializing in servicing its overseas affiliates.<sup>9</sup> Its own manufactured exports were growing at just 2-3 per cent per year in the late 1980s; by contrast, outward processing-related exports made by Hong Kong firms in China increased by 28 per cent in 1989.<sup>10</sup>

In sum, Hong Kong's massive outward projection in manufacturing is rooted in specific strengths, but also reflects structural weaknesses in the domestic manufacturing base. It is very similar to the first stage of international production by Japanese enterprises, but without the domestic restructuring that accompanied the latter's relocation of sunset industries. In the longer term, therefore, the expansion of Hong Kong manufacturing investments is likely to slow and, as effective competitors emerge, possibly come to a halt. On the other hand, as Hong Kong moves into design and service activities, its overseas investments in these fields are bound to grow.



This assumes that Hong Kong FDI will not run into social or political constraints related to 1997. Hong Kong's present loss of skills may erode its competitive base in manufacturing and services, a development whose longer-term effects are difficult to predict.

*(b) Singapore*

Singapore's outward FDI is far lower than that of Hong Kong. Estimates put Singaporean FDI at about \$600 on a per capita basis, roughly one-fifth of Hong Kong's \$3,300 level in the late 1980s.<sup>11</sup> This may seem surprising at first sight because both are open, trade-based economies, pursuing liberal policies on FDI inflows and outflows. Moreover, Singapore has a much heavier industrial structure—manufacturing contributed 26 per cent of GDP compared to Hong Kong's 21 per cent in 1989, while machinery and chemicals contributed 64 per cent of manufacturing value-added compared to Hong Kong's 24 per cent in 1988.<sup>12</sup> This should suggest greater ownership advantages for Singaporean enterprises, nevertheless, there are reasons for lower level of FDI from Singapore. These are explained below.

A modest amount of research has been conducted on Singaporean TNCs in terms of their specialization and strengths (Pang and Komarman, 1984; Lecraw, 1985). In manufacturing, they seem to be concentrated in labour-intensive industries such as electronics assembly and food processing, though some heavier resource-seeking investments also exist (Whitmore et al., 1989, p. 12). The Government of Singapore is directly involved in several of the country's larger foreign ventures. It is likely that a considerable share of FDI in manufacturing is made by Singaporean affiliates of developed-country TNCs, which are now shifting the more labour-intensive aspects of their operations to neighbouring countries as costs rise in Singapore.

The relative slack in FDI by Singapore, in comparison to Hong Kong, may therefore reflect lower ownership advantages on the part of indigenous entrepreneurs. This weakness may be traced to two factors. First, local entrepreneurs traditionally have been weak in Singapore which, unlike Hong Kong, never enjoyed the benefits of an influx of experienced industrialists from China. Second, the deliberate strategy of relying on developed-country FDI to lead the economy into advanced industries—without specific promotion for local entrepreneurs in the advanced technologies concerned—further reduced their ownership advantages in activities where foreign TNCs were well established.

Singapore moved quickly out of the simple, labour-intensive consumer goods that were the mainstay of Hong Kong's entrepreneurial activity. Some indigenous development did take place in food processing, especially ethnic foods, packaging of natural products and simple labour-intensive industries such as textiles and garments, metal products, glass and plastic products, paper and printing. These led to outward investments to exploit the resulting ownership advantages (Lecraw, 1985). However, these advantages were meager in relation to the level of development of the economy and its stature in world markets.

The geographical distribution of Singaporean FDI is rather similar to Hong Kong's, with one major difference: China. However, proximity and the "Chinese connection" evidently play powerful roles, and a substantial volume of informal capital flows must take place between the two countries

within the closely knit Chinese community. The Government is seriously considering plans for a "triangle" of activity including the neighbouring countries of Malaysia and Indonesia, exploiting their relative skills and factor endowments (including the overwhelming foreign TNC presence in Singapore).

Singapore is attempting to induce foreign TNCs to upgrade their activities further, shifting from capital- and skill-intensive manufacturing to local design and development. Towards this end, it is gearing its already high-quality education system to produce broader and deeper technical skills, and offering various inducements to TNCs to establish more training centres and raise local research and development.

While this strategy has met with some success, and Singapore's innovative base is stronger than Hong Kong's, there are obvious problems. The growth of local technological capabilities is entirely dependent on foreign investors (and Government promotion), and thus runs the risk of being subject to forces outside its control. This form of research and development, even if it were to grow significantly, might provide few external benefits because it is likely to be tightly interwoven into the global research-and-development networks of the TNCs concerned and narrowly specialized in certain segments of the innovative spectrum. More importantly for the present volume, it is unlikely to raise significantly the technological capabilities of indigenous firms.

Like Hong Kong, Singapore's outward FDI thus reflects both the strengths and weaknesses of its indigenous entrepreneurs and the particular industrial strategy adopted by the Government. The strategy has been clearly successful in a general sense, using its location, infrastructure and highly developed skills (which are more advanced than Hong Kong's) to attract FDI and build up a high-income economy. However, the impact on indigenous entrepreneurship has been different from Hong Kong's. A technologically more advanced industrial base has tended to weaken rather than strengthen local entrepreneurs. Its overseas investments in manufacturing do not seem to be based on a dynamic set of technological advantages.

In services, the base may be stronger: such financial conglomerates as OCBC, UOB and OUB are large indigenous enterprises. The food and beverage company Fraser & Neave and the Straits Trading tin refinery, both part of the OCBC Group, have extensive networks of affiliates in South-East Asia. Singapore has set out an explicit strategy of moving into sophisticated services in the future, and it is possible that indigenous enterprises will play a significant role in this. If they do, the long-term pattern of Singapore's overseas investments will reflect their growth.

### *(c) Taiwan Province of China*

Taiwan Province of China appears to be the fastest-growing overseas investor in the developing world. Its outward FDI stock grew at an annual rate of 42 per cent between 1980 and 1991 (table II.3). The latest investment surge started in 1987, when the Taiwanese dollar appreciated by about 20 per cent over the previous year and foreign exchange regulations were liberalized.<sup>13</sup> Foreign direct investment from Taiwan Province of China was distributed in roughly equal proportions between developing (generally neighbouring) countries and developed countries, mainly in North America in the 1980s.

About three-fifths of FDI stock had gone into manufacturing by 1991; electrical equipment and chemicals ranked as the largest industries, together accounting for two-thirds of manufacturing investments. But the services sector has been increasingly important, growing from 10 per cent of outward FDI stock in 1980 to 39 per cent in 1991.

The bulk of FDI from Taiwan Province of China, measured by number of projects, is undertaken by its small- and medium-size enterprises. But its largest firms have undertaken a few major overseas ventures, specifically in the developed world, that appear to account for most of the value of FDI outflows: hence the preeminence of investments in electrical equipment and chemicals, industries dominated by large companies. There were more than 2,000 Taiwanese firms in China in 1991, and more than 1,000 factories have been established in South-East Asia; most are labour-intensive small- and medium-size enterprises targeted at the low end of the market.<sup>14</sup>

Small- and medium-size enterprises are the norm in Taiwanese industry, spreading over a broad base from simple labour-intensive activities to high-skill, technology-intensive processes.<sup>15</sup> In heavy industry and other activities involving large economies of scale, Taiwan Province of China has a number of large private groups in mini-computers (Acer Group) and plastics (Formosa Plastic Co. and Nan Ya Plastics Corp.), as well as public enterprises such as China Petroleum Corp., China Steel Corp. and the Ret-Ser Engineering Agency.<sup>16</sup> Indigenous entrepreneurship is highly developed, and the Government's strategy of selective protection and promotion of areas of dynamic comparative advantage has enabled it to diversify far more broadly than Hong Kong and Singapore. Its development has been based on high endowments of human resources—specifically technical—from the earliest stages of its industrial development. This has permitted its diversification, as well as the development of a variety of supporting institutions for skill and technology development and marketing (Lall, 1990).

The lead in FDI recently has been taken by a broad cross-section of small- and medium-size enterprises in traditional industries, firms that were earlier reluctant to go overseas. Rising cost pressures at home, currency appreciation, small size and the consequent handicaps in adjusting to competitive pressures are now leading low-technology small- and medium-size enterprises to shift part of their production overseas. However, the implications for the domestic economy are different from those for Hong Kong. The diversity of the industrial sector and the vitality of local entrepreneurship, sustained by policies to intervene in support of technological deepening, mean that restructuring can continue on a sustained basis within manufacturing, drawing impetus primarily from domestic sources. The final impact of restructuring on small- and medium-size enterprises will depend on the ability of local survivors to upgrade rapidly into higher value-added activities, and this will probably depend on even stronger official interventions to support the technology-acquisition process.

Investments by small- and medium-size enterprises—similar in export orientation and ownership advantages to firms in Hong Kong, or Japan in the 1960s—constitute only one prong of FDI from Taiwan Province of China. The second prong consists of large enterprises with differentiated products, advanced technological capabilities and far-flung sales networks. These have invested partly in developing countries to take advantage of cheaper labour or natural resources,

and partly in developed countries to establish market positions, promote brand products, gain access to advanced technologies and, in some cases, secure raw material supplies. Some recent acquisitions of United States firms by large enterprises are shown in table II.8.

Major investments began in the 1970s. For example, Tatung, an electric and electronics company, set up marketing affiliates in the United States and Singapore in 1972; it initiated United States-based production of electric fans in 1975 and colour televisions in 1977, adding a second colour TV plant in the United Kingdom in 1981. Formosa Plastic moved into the United States to secure plastic materials in the late 1970s. The ownership advantages of these investors are very different from the previous type, based more on technological assets developed by investments in formal research and development, training and interaction with the science-and-technology infrastructure.

The authorities of Taiwan Province of China—faced with the need for industrial upgrading, able to tap large foreign exchange reserves, and driven by the political need to win friends—has taken to promoting FDI actively. In a reversal of attitudes prior to the mid-1980s, investment regulations have become quite liberal to redress the large foreign exchange reserves. The Central Bank also now lends some foreign reserves to firms that undertake FDI.<sup>17</sup> However, the recent crash in local stock markets and a slowdown of export growth has cooled some of the ardour for overseas ventures and acquisitions.

In general terms, FDI from Taiwan Province of China reveals many similarities with that from Hong Kong, as well as with the early stages of Japanese FDI. Its very large population of small- and medium-size enterprises, many unable to upgrade domestically in the face of rising costs, account

Table II.8. Taiwan Province of China: major foreign acquisitions in the United States since 1989

<i>Investor</i>	<i>Year</i>	<i>Acquired company</i>	<i>Amount (Millions of dollars)</i>
Continental Engineering Corp.	1989	American Bridge Co.	200
Mitac Inc.	1989	Wyse Technology Inc.	156.7
China Petroleum Corp.	1990	Huffington Oil	700
President Enterprises Corp.	1990	Wyndham Biscuits	335
Acer Group	1990	Altos Computer Systems Inc.	94
Pacific Electric & Cable	1990	Eight Texas savings and loan associations	37.5
Hualon Microelectric Corp.	1990	Seeq Technology Inc.	5.3
Kung Ying Enterprise	1990	Mouse Systems Corp.	..
Sampo	1990	Payless Car Rental	..
Taiwan Aerospace Corp.	1991	McDonnell Douglas (40 per cent) <sup>a</sup>	2 000
Mitac International	1992	Compac Electronics Inc.	6.4

Source: TCMD, based on various news accounts.

a Tentative agreement reached in November 1991.

for a significant part of its overseas surge—a sign of local technological weakness, but also a positive input in the industrial restructuring process. On the other hand, FDI from Taiwan Province of China has some elements of the latter stages of Japanese overseas expansion: its large firms have many advantages similar to TNCs from industrial countries, and the long-term future of industrial development in Taiwan Province of China depends in large part on how rapidly one form of FDI can be transformed into the other. These technology-based firms, however, are relatively few in number, and small- and medium-size enterprises have to grow rapidly to provide continuous impetus to FDI expansion.

**(d) Republic of Korea**

The Republic of Korea has the largest, heaviest and most advanced industrial structure of the four newly industrializing economies. Its FDI stock reached a total of \$3.4 billion by the end of 1991, showing a very rapid increase from 1980, when it totalled only \$142 million. Within this, manufacturing FDI has increased sharply, from 18 per cent of the total stock in 1980 to 49 per cent in 1991 (see table II.6). Primary sector investments accounted for another 20 per cent, with such services as trading, transportation, construction and real estate making up the remaining 31 per cent.

By destination, the United States was the largest host country, at 35 per cent of total FDI stock in 1991. South and East Asia ranked next at 34 per cent, with Indonesia alone accounting for one-half of FDI in the region; Europe accounted for an additional 7 per cent. Other regions took smaller investments: 5 per cent each for Latin America and the region of Australia, New Zealand and Oceania; and 2 per cent for Africa. The overall geographical spread seems broader than for other newly industrializing economies.

Large firms<sup>18</sup> account for the overwhelming bulk of FDI from the Republic of Korea, 73 per cent by value (but 28 per cent by number) in total FDI stock as of 1991.<sup>19</sup> This indicates a higher level of concentration than other newly industrializing economies. This mirrors a similarly high level of market concentration within the country—the manufacturing sector in the Republic of Korea is dominated by a relatively small number of private conglomerate groups (*chaebol*). The top 50 groups reported total sales of 136 trillion won, accounting for 15 per cent of the nation's economic growth in 1990.<sup>20</sup> Among the largest 500 industrial companies in the world, the Republic of Korea placed 11 firms in 1990, the same number as Switzerland.<sup>21</sup> Overall concentration levels exceed even those for Japan (where conglomerates are also prevalent), and dwarf those for Taiwan Province of China, where small- and medium-size enterprises dominate.

Such a structure is the deliberate creation of the Government, which utilized a highly interventionist strategy to push industry into large-scale, complex, technologically demanding activities while simultaneously restricting FDI inflows tightly to promote national ownership. It was deemed necessary to create enterprises of large size and diversity, and to undertake the risk inherent in launching investments in high-technology, high-skill activities that would remain competitive in world markets. The *chaebol* acted as the representatives and spearheads of the Government's strategy: they were supported by protection against imports and TNC entry,

subsidized credit, procurement preferences and massive investments in education, infrastructure and a science-and-technology network (Pack and Westphal, 1986).

The ownership advantages of the *chaebol* derive from two main factors. First, levels of investment in research and development far exceed levels recorded anywhere else in the developing world. Thus, research-and-development expenditure in the Republic of Korea comes to around 1.9 per cent of GNP (1988), compared to 1.2 per cent for Taiwan Province of China (1988), 0.9 per cent for India (1986) and Singapore (1987), 0.6 per cent for Mexico (1984), 0.5 per cent for Argentina (1988) and 0.4 per cent for Brazil (1985). The country's performance even outstrips that of many developed countries, such as Finland (1.8 per cent in 1987), Belgium (1.7 per cent in 1987), Denmark (1.5 per cent in 1987), Canada (1.4 per cent in 1987), Austria (1.3 per cent in 1985), Italy (1.2 per cent in 1987) and Ireland (1 per cent in 1986). However, it still lags industrial powers such as Japan (2.8 per cent in 1987), Germany (2.8 per cent in 1987) and Switzerland (2.8 per cent in 1986).<sup>22</sup>

The link between internal research-and-development investment and the Republic of Korea's restrictions on inward FDI must also be noted. The country was second only to India in its low reliance on FDI inflows. Foreign capital stocks totaled just 2.3 per cent of GNP in 1987 for the Republic of Korea—above the 0.5 per cent estimate for India, but far below levels of 5.3 per cent for Taiwan Province of China, 17 per cent for Hong Kong, a massive 87 per cent for Singapore, 10 per cent for Brazil and 14 per cent for Mexico.

Also significant is the Republic of Korea's extraordinary investments in skill creation. Enrolments in tertiary education by 1989 came to 38 per cent of the relevant age group, compared to 17 per cent for Taiwan Province of China (1989), 15 per cent for Mexico (1988), 13 per cent for Hong Kong (1984), 11 per cent for Brazil (1988), 8 per cent for Singapore (1980) and 6 per cent for India (1985). Even the United Kingdom (23 per cent in 1987) and Japan (27 per cent in 1988) could not match such high enrolment levels in higher education in the Republic of Korea.<sup>23</sup>

It was the combination of high skill levels with intense technological efforts, within large conglomerate enterprises with powerful export drives and supported by an efficient science-and-technology infrastructure, that determined the country's industrial structure and performance. Taiwan Province of China offered some of these features, but not the formidable combination of size and technological effort, both direct results of the different patterns of intervention pursued by the two Governments. The other newly industrializing economies, as well as the large inward-oriented economies of South Asia and Latin America, lacked many of the features of the country's combination.

These characteristics of the country's strategy make it unique among developing countries (Lall, 1990), giving its industry a level of technological depth and competitive prowess perhaps unmatched in the Third World. The very high initial levels of intervention yielded an industrial structure that was capable of more autonomous development than, say, that of Taiwan Province of China, which experienced less intervention earlier but may need more now to overcome high entry barriers in advanced activities. They also account for the preponderance of the *chaebol* in the

country's overseas investment activity, which in turn may account for its wider geographical dispersion.

The same characteristics may, contrary to expectation, also explain the country's lower FDI profile in comparison with economies with smaller ownership advantages. The pressure on the *chaebol* to relocate to cheaper production bases overseas is far less (for a similar rise in wages or currency appreciation) in initial stages than that faced by economies with a higher proportion of small- and medium-size enterprises in lower-technology activities. Of course, a number of small- and medium-size enterprises in the Republic of Korea are in labour-intensive industries that do face such pressures, and are now starting to respond like their counterparts in Hong Kong or Taiwan Province of China—but these account for a small proportion of the country's total foreign activity. Foreign direct investment by the *chaebol* is more directed at establishing market shares in host countries (in South-East Asia and developed countries), or at gaining access to new technologies and skills, and to a lesser extent to gain cheaper labour.

In view of the country's industrial structure, it is reasonable to anticipate a relatively short-lived spurt of relocation by small- and medium-size enterprises in labour-intensive industries. This will be accompanied by domestic restructuring, as in Taiwan Province of China, but led by the established industry leaders and a new batch of higher-technology small- and medium-size enterprises. The similarity with Japan is much greater here than for the other newly industrializing economies. Sustained growth in FDI will therefore come from the *chaebol* and, at a later stage, from the new breed of small- and medium-size enterprises, with ownership advantages quite different from the present small- and medium-size enterprise generation: again, the parallel with Japan is much greater than for other newly industrializing economies.

After a slow start in comparison to its main competitors in East Asia, FDI by the Republic of Korea may be expected to grow on a more sustained basis, especially in skill- and technology-intensive areas. Its role in domestic industrial restructuring and upgrading would be smaller than that in other newly industrializing economies—but it would offer other advantages of the type normally found in FDI from developed countries.

## 2. Other leading investors

A second group of home countries with relatively sizeable outward FDI are such countries as Argentina, Brazil, India and Mexico. These countries share many similarities arising from the size of their economies and the inward orientation of their strategies. In brief, their FDI covers a wide range of activities and tends to embody a substantial amount of indigenous know-how and capital goods. It tends to be fairly inward-oriented in host countries—generally not oriented to develop world markets nor driven to exploit locational advantage, as Hong Kong FDI is. Lacking the competitive push to relocate labour-intensive operations overseas or the technological base of the leading firms from the larger East Asian newly industrializing economies, it displays less dynamism and is subject to wider variations over time. The three leading Latin American countries and India are discussed individually below.

**(a) Argentina**

Argentina was a relatively advanced country until the Second World War and produced large TNCs. In fact, the first recorded Third World TNC was an Argentine textile manufacturer, *Alpargatas*, which set up a manufacturing affiliate in Uruguay in 1890, followed by the establishment of a similar plant in Brazil (Katz and Kosakoff, 1983). By the 1930s, *Alpargatas* had been joined by two other major TNCs, *Siam di Tella* in mechanical engineering and *Bunge y Born* in diversified trade and manufacturing. However, *Alpargatas* became a tiny shareholder in its major operations in Brazil; *Siam di Tella* went into Government ownership after large losses; and *Bunge y Born* shifted its base to Brazil.

While no official data are available on outward FDI reported by Argentina, inward FDI data from 19 important host countries indicate that Argentina's outward FDI stock was about \$1 billion in 1990 (see table II.3). Of that sum, 42 per cent was invested in the United States and 18 per cent in France; about 20 per cent was invested in neighbouring developing countries. The bulk of FDI in developed countries is believed to be in the banking and financial industries.

Foreign direct investment from Argentina in neighbouring developing countries indicate two sets of ownership advantages. One set is derived from Argentina's early industrialization relative to other neighbouring countries in such industries as pharmaceuticals, textiles and chemicals; the other is related to its abundant natural resources and developed in such industries as agriculture, petroleum and mining. A certain amount of vertical integration in upstream activities has occurred in both sets of industries, and some FDI in these industries emerged in the late 1960s (Teitel and Sercovich, 1984). However, the value of non-service investments is still estimated at less than 10 per cent.

Until the end of the 1980s Argentina retained a strong inward orientation.<sup>24</sup> While its policy has acted as a catalyst for the development of ownership advantages, substantial areas of inefficiency have persisted. Its relatively high skill levels—indicated by a high ratio of school enrolment at the tertiary level, 41 per cent in 1987,<sup>25</sup>—do not seem to have increased its industrial competitiveness and dynamism.

However, FDI from Argentina in neighbouring countries may grow as Argentina and its Southern Cone neighbours move to consolidate economic links. In 1991, Argentina, Brazil, Paraguay and Uruguay agreed to establish a common market by January 1995, which would supersede previous unworkable mechanisms first discussed in 1986 between Argentina and Brazil. The agreements include the phase-out of tariffs for intra-market trade and establishment of external common tariffs by the end of 1994, patterned on those of the integrated European Community. The prospective creation of a market with a GDP of \$420 billion and a population of 190 million<sup>26</sup> may have a positive effect on FDI within the region.

**(b) Brazil**

Brazil ranks first in Latin America in terms of outward FDI stock at some \$2.4 billion in 1990, up from \$300 million in 1977 (see table II.3). Developed countries accounted for 54 per cent of total FDI stock, with the United States alone accounting for about one-third of the total. Developing



countries increased their relative share from 16 per cent in 1977 to 46 per cent in 1990—but nearly two-thirds of the FDI in developing countries has been made in tax-haven countries and territories. The share of FDI flows to neighbouring countries (Argentina, Chile, Paraguay and Uruguay) has been on the rise, accounting for 9 per cent of the total in 1990, up from 5 per cent in 1977.

Brazilian FDI differs from that of other Latin American countries in its scope. Brazilian firms have made FDI in the traditional industrial sector and for motives that have typically been associated with developing-country TNCs—use of factor-endowments that are generally typical of developing countries and in which the technology is relatively mature. Still, a considerable proportion of FDI is also made in relatively technology-intensive industries such as electrical and electronic equipment as well as transport equipment.

Although one study concluded that only 10 per cent of Brazilian products meet international standards,<sup>27</sup> some TNCs have achieved world-class technological competence: Caloi (bicycles), Cofap (car parts), Embraer (aircraft), Grupo Gerdau (steel), Labra (pencils), Pao de Acucar (supermarket chain), Petrobras (oil), Rede Globo (TV network) and Tenenge (engineering).<sup>28</sup> Some of these companies have invested in developed countries to tap advanced technologies or sell their world-class products.

To enhance its technological base, Cofap, for example, built a \$10 million research-and-development centre in Germany, one of whose functions is to support Cofap's plant in Portugal in which it invested \$100 million in 1990. Metal Leve, another car-part company, set up research-and-development facilities in the United States in 1988; and Grupo Gerdau acquired Canada's Courtice Steel for \$52 million in 1989. Examples of investments to facilitate overseas marketing abound. Citrusuco Paulista made a major investment in Japan in 1990 to sell orange juice; Copersucar purchased Hill Brothers Coffee in the United States in 1976; Embraco (the world's second-largest maker of refrigerator compressors) has established subsidiaries in Germany and the United States, and now accounts for 28 per cent of compressor sales in the latter market; and Pao de Acucar has established retailing facilities in Portugal, where it has become a dominant force.

This dichotomy reflects various influences specific to the home country. Perhaps most important is the import-substituting orientation taken by past Governments. The large size of the domestic market as well as the active role of the state in orienting and stimulating structural change and demand have allowed domestic manufacturers to develop an indigenous capital goods industry that has been able to produce on an efficient scale. Past Governments have also rigorously controlled the operations of foreign firms in the domestic market through local content and export requirements and encouraged arm's-length technology transfers wherever possible. Another important reason for the development of ownership advantages has been the creation of sufficient skills and institutional support. In some industries such as aircraft, electrical and electronic equipment machinery, these factors have tended to promote technological development; in others, notably the automobile industry, this has not occurred.

There are no explicit policies on outward FDI. However, with the onset of the debt crisis in 1982, Brazil experienced a domestic market slowdown leading to excess capacity as well as rapid devaluations in the currency. This has acted as a "push" factor for exports and market-seeking FDI.

The Government of Brazil had adopted a policy that virtually prohibited imports of advanced technology to protect local industries. Since 1990, however, this policy has been liberalized, and even the computer market—tightly protected and in many areas closed to foreign participation over the past decade—is expected to be opened up in October 1992.

Brazilian firms seem to be entering a new phase of internationalization as they have begun to pursue a global strategy. At the same time, as in the case of Argentina, the establishment of a common market among four Latin American countries including Brazil by the end of 1994 may stimulate FDI flows into neighbouring countries.

(c) *India*

The value of Indian FDI in joint ventures abroad (in current production or in process of implementation) totaled an estimated \$76 million at the end of 1988, with 92 per cent of the total located in developing countries (see table II.3). The amount going to developed countries has begun to increase rapidly, both in absolute and relative terms. Developed countries accounted for 8 per cent of total stock in 1988, up from 1 per cent in 1985.<sup>29</sup> However, these figures do not provide a complete picture because a considerable proportion of outward investment is done through holding companies and subsidiaries of Indian companies already located overseas. For example, while official sources estimate the outstanding stock of Indian FDI in Nigeria at \$7 million, the actual figure may be closer to \$100 million (Narula, 1991). This large discrepancy is due in part to the restrictive impact of Indian regulations on capital outflows.

Indonesia, Thailand, Senegal, Kenya and Nigeria represent the largest host countries in the developing world. The majority of the stock in the developed countries is placed in the United Kingdom. About four-fifths of this investment is in the secondary sector, especially in textiles, chemicals, metals and paper; growth in manufacturing has more recently been replaced by growth in services. The share of the services sector increased from 11 per cent in 1985 to 15 per cent in 1988.

The ownership advantages of Indian firms up to now have been primarily in labour-intensive, mature industries with relatively well-diffused technologies that conform to the product-life-cycle theory (Lall, 1983). Much of Indian proprietary technology has been based on adaptations to such technologies to fit the particular factor conditions prevalent in developing countries. However, as Indian TNCs have matured and evolved, limited investment has emerged in capital- or technology-intensive industries based on entirely indigenous innovations. A recent example is the establishment of a plant in Silicon Valley in the United States by Hindustan Computers in 1989 to sell its computers on an OEM basis.

The acquisition of advanced technology has become an important motivation for some Indian TNCs, especially against the backdrop of restrictive technology-flow policies. In 1979, the Tata group established Tata-Elix in the United States to acquire technology from its partner Elix, previously engaged in research and development. Most FDI is undertaken through large conglomerates and state-owned enterprises, with relatively few small and medium-size enterprises: 18 groups