World Investment Report 1993: Transnational Corporations and Integrated International Production. An Executive Summary*

Transnational corporations are a powerful force for binding national economies together. Through complex corporate strategies and intricate network structures, transnational corporations engage in international production characterised by a sophisticated intra-firm division of labour for each corporate function. The *World Investment Report 1993: Transnational Corporations and Integrated International Production* (United Nations publication, Sales No. E.93.II.A.14), prepared by the UNCTAD Programme on Transnational Corporations (formerly the United Nations Centre on Transnational Corporations), provides an analysis of the changing activities of transnational corporations and their impact on world-wide economic change. It considers the role of these firms in spearheading a new pattern of international economic integration and identifies a shift from shallow, trade-based linkages to deeper, production-based linkages. It furthermore considers new strategies and structures evolving at the firm level which suggest that a more integrated international production system will determine the future pattern of global economic relations. These changes raise important policy issues. The *Report* discusses implications for the legal and fiscal framework of sovereign states and considers the kind of investment policies that could be pursued by national economic policy makers.

The universe of transnational corporations

The universe of transnational corporations (TNCs) is large, diverse and expanding. By the early 1990s, there were 37,000 TNCs in the world, with over 170,000 foreign affiliates (table 1). Of these, 24,000 TNCs were based in 14 major home developed economies, up from 7,000 in 1970. Even those figures understate the number of firms that operate as TNCs, both because of measurement difficulties, and because firms carry out their transnational activities and exert control over foreign productive assets through a variety of non-equity arrangements—subcontracting, franchising, licensing and the like—as well as through the formation of strategic alliances. These forms of international expansion occur with little or no foreign direct investment (FDI), and

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are therefore only partially captured by FDI data or by firm-level data defined by equity participation. More than 90 per cent of TNCs are headquartered in the developed countries and less than 1 per cent are from Central and Eastern Europe. Those from developing countries account for approximately 8 per cent of all TNCs and 5 per cent of the global stock of FDI.

Table 1. Number of parent transnational corporations and foreign affiliates, by area and country, early 1990s

Area/economy	Parent corporations based in country	Foreign affiliates located in country[a]	Year
Developed countries	33 500	81 800	
Australia	1 036	695	1992
Austria	679	2 221	1990
Belgium and Luxembourg	96	1 121	1978
Canada	1 308[b]	5 874	1991
Denmark	800	647[c]	1992
Finland	1 300	1 000	1992
France	2 056	6 870	1990
Germany, Federal Republic of	6 984	11 821	1990
Greece	..	798	1981
Iceland	14[d]	28	1991
Ireland	30	956	1992
Italy	263	1 438	1992
Japan	3 529[e]	3 150	1992
Netherlands	1 426	2 014	1992
New Zealand	201	1 078	1991
Norway	1 321	2 854[f]	1990
Portugal	684	6 680	1992
South Africa	..	1 884	1978
Spain	744	6 232[g]	1992
Sweden	3 529	2 400	1991
Switzerland	3 000	4 000	1985
Turkey	..	267	1989
United Kingdom	1 500[h]	2 900[i]	1991
United States	3 000[j]	14 900[k]	1990
Developing economies[l]	2 700	71 300	
Brazil	566	7 110[c]	1992
China	379	15 966[f]	1989
Colombia	..	1 041	1987
Hong Kong	500[m]	2 828	1991
India	187	926[f]	1991
Indonesia	..	1 064	1988

Area/economy	Parent corporations based in country	Foreign affiliates located in country[a]	Year
Mexico	..	8 953	1989
Oman	..	1 489	1989
Pakistan	57	560[g]	1988
Philippines	..	1 952	1987
Republic of Korea	1 049	3 671	1991
Saudi Arabia	..	1 461	1989
Singapore	..	10 709	1986
Taiwan Province of China	..	5 733	1990
Former Yugoslavia	112	3 900	1991
Central and Eastern Europe[n]	400	21 800	
Bulgaria	26	114[b]	1991
Commonwealth of Independent States[o]	68[e]	3 900	1992
Former Czechoslovakia	26[e]	800	1992
Hungary	66[e]	2 400	1992
Poland	58[e]	3 800	1992
Romania	20[e]	6 900	1992
World	36 600	174 900	

Source: UNCTAD, Programme on Transnational Corporations, *World Investment Report 1993: Transnational Corporations and Integrated International Production* (United Nations publication, Sales No. E.93.II.A.14).

[a]Represents the number of affiliates in the country shown.

[b]For 1990.

[c]For 1986.

[d]For 1989.

[e]For 1991.

[f]For 1988.

[g]For 1987.

[h]Represents at total of 24 bank parents in 1991, and about 1,500 non-bank, non-oil and non-insurance concerns with direct investments above £20 million in 1981.

[i]Represents a total of 2,419 manufacturing affiliates in 1990 and 518 bank affiliates in 1992.

[j]Represents a total of 2,183 non-bank parent corporations in 1990 and 89 bank parent corporations in 1989 with at least one foreign affiliate whose assets, sales or net income exceeded $3 million, and 723 non-bank and bank parent corporations in 1989 whose affiliate(s) had assets, sales and net income under $3 million.

[k]Represents a total of 10,142 non-bank affiliates in 1990 and 467 bank affiliates in 1987 whose assets, sales or net income exceeded $1 million, and 4,336 bank and non-bank affiliates in 1987 with assets, sales and net income under $1 million. Each affiliate represents a fully consolidated Unites States business enterprise, which may consist of a number of individual companies. 10,142 non-bank affiliates represented 31,388 companies in 1990.

[l]Includes the largest host countries and countries for which data on parent corporations could be obtained.

[m]For 1982.

[n]Data for affiliates are estimated using number of joint-venture registrations and available information on the number of registrations that are operational.

[o]Relates to the whole of the economic territory of the former USSR.

The universe of TNCs is highly concentrated in terms of the share of foreign assets controlled by the largest firms. Roughly 1 per cent of parent TNCs own half of the FDI stock or total affiliate assets. The largest 100 TNCs accounted for roughly $280 billion of the world stock of outward investment in 1990, 14 per cent of the total (table 2).

The growth of foreign direct investment

The growing influence of TNCs can be seen in the increase in the stock of FDI and the growth in the number of TNCs and their foreign affiliates. During the 1980s, and especially after 1982, annual FDI flows grew rapidly. By 1992, the global stock of FDI had reached approximately $2 trillion, which generated about $5.5 trillion in sales by foreign affiliates (compared to the world exports of goods and non-factor services of $4 trillion). The pace of growth slowed during 1991 and 1992, but that is probably a temporary phenomenon, largely due to recession in the biggest economies.

The growth of FDI in the 1980s was increasingly concentrated within the Triad regions (UNCTC, 1991). In the early 1990s, however, FDI flows to developed countries declined, while those to developing countries increased, especially in Asia and Latin America and the Caribbean, in response to rapid economic growth and fewer restrictions.

The decline of FDI inflows to developed countries can be attributed, in part, to slow growth and recession in the European Community, Japan and North America (table 3). The attractiveness of these economies as hosts was further reduced since domestic profitability also declined. In addition, recession has reduced the ability and willingness of TNCs from these economies to expand abroad. Japan in particular saw its FDI outflows decline substantially as domestic financial weaknesses on top of declining profitability hampered the ability of Japanese TNCs to invest abroad.

At the same time, the expansion of FDI to developing countries was the result of the resurgence of strong economic performance in a wide spectrum of developing countries in Asia and Latin America, their control of vital natural resources in Africa and their continuing efforts to liberalize and privatize (table 4). The growth of TNCs activities in Latin America and Asia has been further stimulated by progress towards a North American Free Trade Agreement and, in Asia, by various governmental actions to promote trade and FDI. The general trend towards liberalization and privatization has also been evident in Central and Eastern Europe where inflows continue to grow.

Table 2. The largest 100 non-financial transnational corporations, ranked by foreign assets, 1990
(Billions of dollars and number of employees)

Rank	Corporation	Country	Industry[a]	Foreign assets	Total assets	Foreign sales	Total sales	Foreign employment	Total employment
1	Royal Dutch Shell	United Kingdom/ Netherlands	Petroleum refining	69.2[b]	106.4	47.1[b]	106.5	99 000	137 000
2	Ford	United States	Motor vehicles and parts	55.2	173.7	47.3	97.7	188 904	370 383
3	GM	United States	Motor vehicles and parts	52.6	180.2	37.3	122.0	251 130	767 200
4	Exxon	United States	Petroleum refining	51.6	87.7	90.5	115.8	65 000	104 000
5	IBM	United States	Computers	45.7	87.6	41.9	69.0	167 868	373 816
6	British Petroleum	United Kingdom	Petroleum refining	31.6	59.3	43.3	59.3	87 200	118 050
7	Asea Brown Boveri	Switzerland	Industrial and farm equipment	26.9	30.2	25.6[d]	26.7	200 177	215 154
8	Nestlé	Switzerland	Food	..[c]	28.0	35.8	36.5	192 070	199 021
9	Philips Electronics	Netherlands	Electronics	23.3	30.6	28.8[d]	30.8	217 149	272 800
10	Mobil	United States	Petroleum refining	22.3	41.7	44.3	57.8	27 593	67 300
11	Unilever	United Kingdom/ Netherlands	Food	..[c]	24.7	16.7[d]	39.6	261 000	304 000
12	Matsushita Electric	Japan	Electronics	..[c]	62.0	21.0	46.8	67 000	210 848
13	Fiat	Italy	Motor vehicles and parts	19.5	66.3	20.7[d]	47.5	66 712	303 238
14	Siemens	Germany	Electronics	..[c]	43.1	14.7[d]	39.2	143 000	373 000
15	Sony	Japan	Electronics	..[c]	32.6	12.7	20.9	62 100	112 900
16	Volkswagen	Germany	Motor vehicles and parts	..[c]	42.0	25.5[d]	42.1	95 934	268 744
17	Elf Aquitaine	France	Petroleum refining	17.0	42.6	11.4[d]	32.4	33 957	90 000
18	Mitsubishi	Japan	Trading	16.7	73.8	45.5	129.3	..	32 417
19	GE	United States	Electronics	16.5	153.9	8.3	57.7	62 580	298 000
20	Du Pont	United States	Chemicals	16.0	38.9	17.5	37.8	36 400	124 900
21	Alcatel Alsthom	France	Electronics	15.3	38.2	13.0	26.6	112 966	205 500
22	Mitsui	Japan	Trading	15.0	60.8	48.1	136.2	..	9 094
23	News Corporation	Australia	Publishing and printing	14.6	20.7	4.6	5.7	..	38 432
24	Bayer	Germany	Chemicals	14.2	25.4	20.3	25.9	80 000	171 000
25	B.A.T. Industries	United Kingdom	Tobacco	..[c]	48.1	16.5[d]	22.9	..	217 373
26	Ferruzzi/Montedison	Italy	Food	13.4	30.8	8.0	14.0	22 300	44 949

(Table 2, cont'd)

Rank	Corporation	Country	Industry[a]	Foreign assets	Total assets	Foreign sales	Total sales	Foreign employment	Total employment
27	Rhone-Poulenc	France	Chemicals	13.0	21.3	11.1	14.4	50 525	91 571
28	BASF	Germany	Chemicals	..[c]	24.3	19.1[d]	29.0	46 059	134 647
29	Toyota	Japan	Motor vehicles and parts	12.8	55.1	24.8	60.1	11 326	96 849
30	Philip Morris	United States	Food	12.5	46.6	10.5	51.2	66 000	168 000
31	Hoechst	Germany	Chemicals	..[c]	22.9	20.7[d]	27.8	82 169	172 890
32	Roche Holding	Switzerland	Pharmaceuticals	..[c]	17.8	6.7[d]	7.0	41 802	52 685
33	Ciba-Geigy	Switzerland	Chemicals	..[c]	20.5	7.9[bd]	14.3	69 702	94 141
34	Hanson	United Kingdom	Building materials	11.1	27.6	6.3	13.4	52 000	80 000
35	Michelin	France	Rubber and plastics	..[c]	14.9	9.1	11.5	111 533	140 829
36	Dow Chemical	United States	Chemicals	10.9	24.0	10.3	19.8	28 612	62 080
37	Total	France	Petroleum refining	..[c]	20.6	17.1	23.6	23 824	46 024
38	Amoco	United States	Petroleum refining	10.6	32.2	8.5	28.0	10 560	54 524
39	ICI	United Kingdom	Chemicals	10.5	20.8	17.7	23.0	78 400	132 100
40	C.Itoh	Japan	Trading	10.5	58.4	48.3	151.1	3 620	9 643
41	Grand Metropolitan	United Kingdom	Food	10.4	17.7	9.7	16.0	..	138 149
42	Saint-Gobain	France	Building materials	9.9	17.6	7.8	12.7	69 651	104 987
43	Volvo	Sweden	Motor vehicles and parts	9.7	18.1	12.2[d]	14.1	20 346	68 800
44	Petrofina	Belgium	Petroleum refining	..[c]	12.3	5.7	17.4	..	23 800
45	Générale Des Eaux	France	Construction	9.0[g]	27.7	5.5[d]	21.5	55 983	173 000
46	Nissan Motor	Japan	Motor vehicles and parts	..[c]	36.4	16.8	35.7	30 050	129 546
47	RTZ	United Kingdom	Mining and crude-oil production	8.4	9.3	7.3	9.3	58 153	73 612
48	Chevron	United States	Petroleum refining	8.4	35.1	9.8	38.6	10 953	54 208
49	Solvay	Belgium	Chemicals	8.1[g]	8.9	7.2	7.7	36 578	45 671
50	Xerox	United States	Scientific and photographic equipment	8.0	31.5	7.5	18.4	..	110 000
51	Texaco	United States	Petroleum refining	7.8	26.0	18.0	40.9	..	39 199
52	Electrolux	Sweden	Electronics	7.8	11.7	11.9[d]	13.9	123 337	150 892
53	ITT	United States	Diversified services	7.5	49.0	6.5	20.6	..	114 000
54	Daimler-Benz	Germany	Transport and communication	..[c]	45.1	30.2[d]	52.9	73 381	376 785

(Table 2, cont'd)

Rank	Corporation	Country	Industry[a]	Foreign assets	Total assets	Foreign sales	Total sales	Foreign employment	Total employment
55	Renault	France	Motor vehicles and parts	7.4	23.5	12.2	30.2	42 492	157 378
56	Thomson	France	Electronics	7.4	20.5	9.8[d]	13.9	55 225	105 460
57	Thomson Corporation	Canada	Publishing and printing	7.4	7.9	4.8	5.3	38 700	44 800
58	Stora	Sweden	Forestry products	7.3	15.0	8.9[d]	11.1	47 544	69 691
59	Pechiney	France	Metals	7.3	14.2	8.6	14.2	39 458	70 965
60	Holderbank	Switzerland	Building materials	6.9[g]	7.4	3.4[d]	3.8	27 754	29 557
61	Alcan Aluminium	Canada	Metal products	6.8	10.6	7.6	8.9	41 040	55 500
62	Sandoz	Switzerland	Pharmaceuticals	6.7	10.1	8.7[d]	9.0	42 449	52 400
63	Honda	Japan	Motor vehicles and parts	6.7	18.0	16.1	26.9	23 760[e]	79 200
64	Toshiba	Japan	Electronics	..[c]	39.2	10.3	33.3	27 000	162 000
65	ENI	Italy	Petroleum refining	6.5	60.3	15.6	41.8	22 131	130 745
66	Procter & Gamble	United States	Soaps and cosmetics	6.5	18.5	9.6	24.1	45 278	92 625
67	Eastman Kodak	United States	Scientific and photographic equipment	6.4	24.1	8.2	18.9	54 100	134 450
68	Marubeni	Japan	Trading	6.3	54.9	38.1	131.0	3 500	9 905
69	Glaxo Holdings	United Kingdom	Pharmaceuticals	6.1	8.6	5.1[d]	5.7	20 934	33 225
70	Fletcher Challenge	New Zealand	Forestry products	5.9	10.4	4.9	7.3	..	40 000
71	Nissho Iwai	Japan	Trading	..[c]	38.8	27.5	94.4	2 073	7 350
72	Seagram	Canada	Beverages	5.7	10.2	4.6[d]	4.8	9 328	17 600
73	Chrysler	United States	Motor vehicles and parts	5.7	46.4	8.5	30.6	30 820	109 943
74	Tenneco	United States	Industrial and farm equipment	5.6	19.0	4.6	14.5	..	92 000
75	Usinor-Sacilor	France	Metals	..[c]	20.8	7.3	17.6	31 025	97 300
76	Hewlett-Packard	United States	Computers	5.3	11.4	7.2	13.2	35 000[f]	92 200
77	Akzo	Netherlands	Chemicals	5.3	8.1	6.3	9.5	47 700	69 800
78	Smithkline Beecham	United Kingdom	Pharmaceuticals	5.2	7.5	7.4	8.5	46 413	57 300
79	Bridgestone	Japan	Rubber and plastics	..[c]	13.0	7.6	13.2	56 000	87 234
80	Alcoa	United States	Metals	5.1	11.4	4.3	10.7	27 391	63 700
81	Digital Equipment	United States	Computers	5.1	11.7	7.1	12.9	..	124 000
82	Olivetti	Italy	Computers	5.0	12.4	4.8[d]	7.5	26 690	53 679
83	SKF	Sweden	Metal products	5.0	5.5	4.5[d]	4.7	48 075	53 995

(Table 2, cont'd)

Rank	Corporation	Country	Industry[a]	Foreign assets	Total assets	Foreign sales	Total sales	Foreign employment	Total employment
84	L'Air Liquide	France	Chemicals	4.9	7.1	2.9	5.4	17 000	28 000
85	Atlantic Richfield	United States	Petroleum refining	4.9	23.9	3.9	18.8	..	27 300
86	GTE	United States	Telecommunications	4.9	33.8	3.0	18.4	35 000	177 000
87	Mannesmann	Germany	Industrial and farm equipment	4.9	15.3	9.0	14.8	34 021	123 997
88	Robert Bosch	Germany	Motor vehicles and parts	..[c]	15.8	10.0[bd]	19.7	62 087	179 636
89	SCA	Sweden	Paper and packaging	4.8	8.6	4.2[d]	5.3	19 590	30 139
90	Peugeot	France	Motor vehicles and parts	4.8	22.6	15.8	29.5	31 820	159 100
91	3M	United States	Scientific and photographic equipment	4.7	11.1	6.2[d]	13.0	39 000	89 601
92	McDonald's	United States	Restaurants	4.6	10.7	6.5	18.8	..	177 000
93	Cable and Wireless	United Kingdom	Telecommunications	4.6	7.2	3.3	3.8	28 261	37 681
94	United Technologies	United States	Aerospace	4.4	15.9	7.8	21.4	84 500	192 600
95	Lonrho	United Kingdom	Trading	..[c]	7.0	5.6	9.3	127 369	142 159
96	Johnson & Johnson	United States	Pharmaceuticals	4.4	9.5	5.8	11.2	44 369[e]	84 902
97	BHP	Australia	Metals	4.3	16.2	3.2	10.8	..	52 000
98	Norsk Hydro	Norway	Chemicals	4.3	12.0	5.9	9.8	16 745	33 042
99	Veba	Germany	Trading	..[c]	30.8	9.5	32.9	14 696	106 877
100	LVMH Moet-Hennessy	France	Beverages	4.2	8.8	2.6	3.7	..	14 297

Source: UNCTAD, Programme on Transnational Corporations, *World Investment Report 1993: Transnational Corporations and Integrated International Production* (United Nations publication, Sales No. E.93.II.A.14).

[a]Industry classification of companies follows that in the Fortune Global 500 list in *Fortune*, 29 July 1991, and the Fortune Global Service 500 list in *Fortune*, 26 August 1991, except for Akzo, Daimler-Benz, GTE, ITT, McDonald's and SCA corporations. In the *Fortune* classification, companies are included in the industry or service that represents the greatest volume of their sales; industry groups are based on categories established by the United States Office of Management and Budget. Several companies, however, are highly diversified. These companies include 3M, Ferruzzi/Montedison, GE, Grand Metropolitan, Hanson, ITT, Sandoz, Tenneco, United Technologies and Veba.

[b]Excludes other European countries.

[c]Data for foreign assets not available; ranking is according to foreign assets estimated by the Transnational Corporations and Management Division on the basis of the ratio of foreign to total employment, foreign to total fixed assets or other similar ratios.

[d]Includes export sales which cannot be excluded.

[e]For 1992; previous data not available.

[f]For 1993; previous data not available.

[g]Company's own estimate.

Shifts across sectors in foreign direct investment

The rapid increase in FDI throughout the world has been accompanied by a pronounced change in its sectoral composition, from the primary sector and resource-based manufacturing towards services and technology-intensive manufacturing (table 5). Although the growth in services FDI has followed advances in information technology, global expansion through FDI has been constrained by legislative obstacles. Consequently, the recent wave of liberalization has had a particularly marked effect on services FDI, which is likely to continue during the coming decade. Significant capital-intensive service industries (such as telecommunications and air transportation) have only recently opened up to FDI, providing new opportunities for TNCs.

The stock of FDI in the primary sector is now dwarfed by that in other sectors. However, it still grew quite impressively during the 1980s. Indeed, in developed market economies, its inward stock grew faster than in any other sector and faster than the stock of primary sector inward FDI to developing countries. This unexpected development was brought about by the combined effect of intense merger activity, notably in petroleum, and the search for safer investment locations. However, as more developing countries introduce open and stable FDI regimes, there are signs that locational decisions in the primary sector are again emphasizing natural advantages. But the continuing uncertainty in some resource-rich economies in transition, particularly the Russian Federation and southern Africa, will affect future flows of FDI in this sector.

The stock of FDI in the secondary sector has declined, relative to services, although in developing countries in 1990 its stock was still considerably larger than that in other sectors. The significant changes in manufacturing have been more qualitative in their nature. In particular, there has been a shift from labour-intensive manufacturing towards more capital-intensive industries, both across and within countries. During the 1980s, this was most pronounced in the inward stock of FDI in the newly industrializing economies. Furthermore, increasing technological demands in much of manufacturing are leading to new forms of corporate activity. Non- and low-equity FDI have become established means to control assets abroad, and strategic alliances have expanded, particularly in those industries with short product cycles and high research-and-development costs.

Trends and cycles in foreign direct investment

The decline in world-wide investment flows in 1991 and 1992 has marked the end of a period of constantly and rapidly rising flows that began in 1982 (figure 1). This slow-down raises the question of the extent to which the surge in foreign-

Table 3. Inflows and outflows of foreign direct investment, 1987-1992 (Billions of dollars and percentage)

Country	1987	1988	1989	1990	1991	1992[a]	1981-1985	1986-1990	1991[a]	1992	1981-1985	1986-1990	1991[a]	1992
	(Billions of dollars)						Share in total (Percentage)				Growth rate (Percentage)			
Developed countries														
Inflows	109	132	167	172	108	86	74	83	74	68	0.2	24	−37	−20
Outflows	132	162	203	225	177	145	98	97	97	97	3	24	−21	−18
Developing countries														
Inflows	25	30	29	31	39	40	26	17	26	32	−4	14	21	3
Outflows	2	6	10	9	5	5	2	3	3	3	33	45	−39	0
All countries														
Inflows	135	162	196	203	149	126	100	100	100	100	−0.9	22	−27	−15
Outflows	135	168	213	234	183	150	100	100	100	100	4	24	−22	−18

Source: UNCTAD, Programme on Transnational Corporations, *World Investment Report 1993: Transnational Corporations and Integrated International Production* (United Nations publication, Sales No. E.93.II.A.14).

[a]Based on preliminary estimates.

Table 4. Inflows of foreign direct investment to developing economies, by region, 1981-1985, 1986-1990 and 1991 (Billions of dollars and percentage)

Country/economy	1981-1985	1986-1990	1991	1992[a]	1981-1985	1986-1990	1991	1992	1981-1985	1986-1990	1991	1992
	(Billions of dollars)				Share in total (Percentage)				Growth rate (Percentage)			
All countries	50	155	149	126	100	100	100	100	–1	22	–27	–15
Developing countries	14	26	39	40	26	17	26	32	–4	14	24	3
Africa	2	3	3	2	3	2	2	2	12	6	21	–33
East, South and South-East Asia	5	13	20	21	10	9	13	17	–3	21	8	5
Latin America and the Caribbean	6	9	15	16	12	6	10	13	–10	9	53	7
Oceania	0.1	0.2	0.1	0.5	0.3	0.1	0.1	0.4	–2	27	–57	400
West Asia	0.4	0.4	0.8	0.8	1	0.3	0.5	0.6	7	27	61	0
Other[b]	0.03	0.05	0.1	0.1	0.1	0.03	0.1	0.08	–10	103	35	0
Least developed countries	0.2	0.1	0.2	..	0.3	0.1	0.1	..	–0.4	1	12	..
Ten largest host developing economies	9[c]	17[d]	25[e]	26[e]	18[b]	11[c]	16[d]	21[e]	–9[b]	18[c]	44[d]	4

Source: UNCTAD, Programme on Transnational Corporations, *World Investment Report 1993: Transnational Corporations and Integrated International Production* (United Nations publication, Sales No. E.93.II.A.14).

[a]Estimated.

[b]Malta and Yugoslavia.

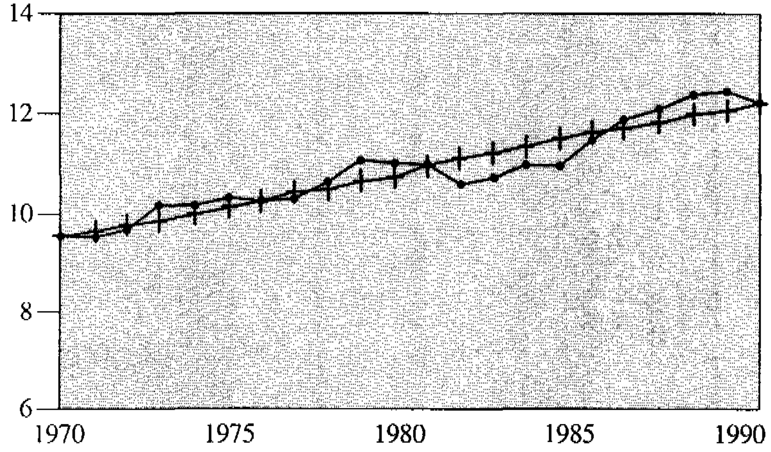
[c]Argentina, Brazil, China, Colombia, Egypt, Hong Kong, Malaysia, Mexico, Nigeria and Singapore.

[d]Argentina, Brazil, China, Egypt, Hong Kong, Mexico, Nigeria, Singapore, Taiwan Province of China and Thailand.

[e]Argentina, Brazil, China, Indonesia, Malaysia, Mexico, Republic of Korea, Taiwan Province of China, Thailand and Venezuela.

direct-investment flows in the 1980s was the result of short-term factors—the strong growth of the world economy and the boom in mergers and acquisitions activity—or whether the influence of long-term factors is also changing the underlying trend.

Figure 1. Outflows of foreign direct investment, 1970-1991 (Logarithmic values)



Source: UNCTAD, Programme on Transnational Corporations, *World Investment Report 1993: Transnational Corporations and Integrated International Production* (United Nations publication, Sales No. E.93.II.A.14).

The pattern of FDI flows in the second half of the 1980s was the result of an interplay between short- and long-term factors. Similar to domestic investment, investment flows are strongly correlated with the growth of gross national product. The strong growth of the world economy in the 1980s boosted the growth of FDI flows from the major home countries. The mergers-and-acquisitions boom also promoted the surge in FDI. The impact of those short-term factors was amplified by long-term factors—policy-related developments and changes in the structure of the world economy as a result of the operations of TNCs—which changed the underlying trend of investment flows. Policy-related developments included the liberalization of trade and investment regimes, especially in the devel-

Table 5. Sectoral distribution of foreign-direct-investment stock for the largest developed home countries and the largest developed and developing host countries, 1970-1990 (Billions of dollars and percentage)

Groups of countries and sectors	1970	1975	1980	1985	1990	1971-1975	1976-1980	1981-1985	1986-1990	1981-1990	1970	1975	1980	1985	1990
	Billions of dollars					Average annual growth rate in per cent					Share in per cent				
A. Outward stock															
Developed countries[a]															
Primary	29	58	88	115	160	14.0	8.7	5.5	6.8	6.2	22.7	25.3	18.5	18.5	11.2
Secondary	58	103	208	240	556	11.7	15.1	2.9	18.3	10.3	45.2	45.0	43.8	38.7	38.7
Tertiary	41	68	179	265	720	10.4	21.4	8.2	22.1	14.9	31.4	27.7	37.7	42.8	50.1
Total	129	229	475	620	1 436	11.7	15.7	5.5	18.3	11.7	100.0	100.0	100.0	100.0	100.0
B. Inward stock															
Developed countries[b]															
Primary	12	17	18	39	94	4.7	5.9	16.7	19.2	18.0	16.2	12.1	6.7	9.2	9.1
Secondary	44	79	148	195	439	10.7	13.4	5.7	17.6	11.5	60.2	56.5	55.2	46.2	42.5
Tertiary	17	44	102	188	499	16.5	18.3	13.0	21.6	17.2	23.7	31.4	38.1	44.5	48.4
Total	73	140	268	422	1 032	11.3	13.9	9.5	19.6	14.4	100.0	100.0	100.0	100.0	100.0
Developing countries[c]															
Primary	..	7	17	31	46	..	19.4	12.8	8.2	10.5	..	20.6	22.7	24.0	21.9
Secondary	..	19	41	64	102	..	16.6	9.3	9.8	9.5	..	55.9	54.6	49.6	48.6
Tertiary	..	8	17	34	62	..	16.3	14.9	12.8	13.8	..	23.5	22.7	26.4	29.5
Total	..	34	75	129	210	..	17.1	11.4	10.2	10.8	..	100.0	100.0	100.0	100.0

Source: UNCTAD, Programme on Transnational Corporations, *World Investment Report 1993: Transnational Corporations and Integrated International Production* (United Nations publication, Sales No. E.93.II.A.14).

[a]Australia, Canada, France, Germany, Italy, Japan, Netherlands, United Kingdom and United States; together these countries accounted for almost 90 per cent of outward FDI stock in 1990. 1970 and 1971-1975 growth data exclude Australia and France.

[b]Australia, Canada, France, Germany, Italy, Japan, Netherlands, Spain, United Kingdom and United States; together these countries accounted for approximately 72 per cent of total inward FDI stock in 1990. 1970 and 1971-1975 growth data exclude Australia, France and Spain.

[c]Argentina, Brazil, Chile, China, Colombia, Hong Kong, Indonesia, Republic of Korea, Malaysia, Mexico, Nigeria, Philippines, Singapore, Taiwan Province of China, Thailand and Venezuela; together these countries accounted for 68 per cent of total inward FDI in developing countries.

oping countries; the spread of privatization allowing TNCs to enter previously closed industries; changes in the exchange rate between the dollar and the yen, encouraging a wave of Japanese FDI; and regional integration schemes, notably the European Community, that induced considerable intra- and interregional investments. Structural factors—the size of international production and its increasingly integrated nature—also influenced the underlying trend.

These long-term factors suggest that the scope for rapid growth of FDI flows remains substantial, over and above the stimulus to those flows from a recovery in the world economy. Imbalances across countries and regions—for example, the low level of FDI flows to Japan—also indicate that there is plenty of room for further growth. The *Report* therefore projects that FDI flows will grow along an upward trend, although cyclical factors will continue to result in short-term fluctuations during the 1990s.

Such projections do not fully reflect the role of TNCs in influencing world development. Transnational corporations have an impact because they embody a package of potentially growth-enhancing attributes, including capital, technology, managerial and organizational know-how and access to international markets (UN, TCMD, 1992). These are becoming increasingly potent features of the growing integration of the world economy.

Recent policy developments

The continuing growth of FDI is being facilitated by developments in the policy framework. At the multilateral level, examples include the adoption of the World Bank Guidelines on the Treatment of Foreign Direct Investment. They propose general standards of fair and equitable treatment, national treatment and most-favoured-nation treatment. Those standards apply, in principle, to all activities of foreign investors, from setting up abroad to the ultimate disposal of an investment. Elsewhere, the United Nations Conference on Environment and Development, held in Rio de Janeiro in June 1992, adopted the Agenda for the 21st Century. It considers generic management issues and recommends that corporations establish world-wide corporate policies on sustainable development. These include policies to facilitate the transfer of clean technology to developing countries, to go beyond the existing practices and adopt no less stringent standards of operation as in their home country, and to report annually on their environmental records. These developments at the multilateral level, combined with an initiative of the OECD to examine the feasibility of a "wider" investment instrument, suggest that the search for a more comprehensive approach to FDI and the activities of TNCs continues.

At the bilateral and national levels, too, policy developments continued in 1992. The number of bilateral investment treaties concluded by OECD countries reached 506 at the end of 1992, with a marked growth in the participation of Latin American countries and the newly independent states in Central and Eastern Europe. Nationally, all 79 new legislative measures adopted in 1992 in 43 countries were intended to liberalize the rules on FDI; in 1991, 80 of 82 measures were more liberal (UN, TCMD, 1992). Other significant policy changes included legislative actions to increase intellectual property protection and to provide the legal conditions for the participation of TNCs in the privatization of state industries, a major source of FDI growth.

New strategies by transnational corporations

The ability of TNCs to contribute to international economic integration is a result both of their attributes and of how they respond to the economic and policy environment in which they operate. The strategies of TNCs evolve, as firms respond to various pressures and opportunities, including improvements in information technologies, the convergence of demand patterns across countries, the intensification of competition and the opening of markets to international trade and FDI. The new strategies imply significant changes in how production is organized across borders; they have led firms to locate a wider range of their value-adding activities abroad.

The strategies of TNCs increasingly involve more complex forms of cross-border integration (table 6). Under the simplest strategies—standalone affiliates or multi-domestic affiliates engaged in international production while serving a single host economy or host region—affiliates have a high degree of autonomy from the parent firm. They are responsible for most of the activities that comprise their value chain, and in some instances can act as self-contained entities.

As trade barriers fall, as communications technologies improve and as international competition intensifies, firms are turning to outsourcing for parts of their value-adding operations. They are strengthening the links with their foreign affiliates and with separate firms operating as subcontractors, licensees etc. However, these links are only for specific activities. The existence of outsourcing is based largely upon the cost advantages of a particular host country for a particular component. The affiliate or subcontractor engaged in outsourcing cannot stand alone. It depends upon the parent firm for a number of key activities, while the parent firm depends on the affiliate for part of its overall value chain.

More recently, many TNCs have moved beyond these "simple integration" strategies. They are now treating all activities across the entire value chain as potential candidates for being performed by one or more affiliates.

Table 6. Evolution of the strategies and structures of transnational corporations

Form	Types of intra-firm linkages	Degree of integration	Environment
Standalone, e.g., multi-domestic	Ownership, technology	Weak	Host country accessible to FDI; significant trade barriers; costly communications and transportation
Simple integration, e.g., outsourcing	Ownership, technology, markets, finance, other inputs	Strong at some points of value chain, weak in others	Open trade and FDI regime, at least bilaterally; non-equity arrangements
Complex international, production, e.g., regional core networks	All functions	Potentially strong throughout value chain	Open trade and FDI regime; information technology; convergence in tastes; heightened competition

Source: UNCTAD, Programme on Transnational Corporations, *World Investment Report 1993: Transnational Corporations and Integrated International Production* (United Nations publication, Sales No. E.93.II.A.14).

This new approach—"complex integration"—is made possible by huge improvements in communication and information technologies. They allow TNCs to coordinate a growing number of activities in a widening array of locations. This, in turn, changes the way in which TNCs structure their activities. In a number of instances, indeed, information technology is leading to a "re-engineering" of relationships within firms.

Complex integration is also being driven by the tendency for markets to converge. More products are sold in the same or similar form in a growing number of national markets. In addition, competition forces firms to seek cost savings and profits from all segments of their value chains. As a result, companies are arranging certain functions—research and development, procurement, accounting, data entry and processing, as well as activities for specific products or product lines, such as component manufacturing and assembly—in a way that requires close links between parent firms and foreign affiliates, among foreign affiliates themselves and between parents and affiliates and firms linked via alliances. With that type of integration, separate activities performed in international locations are valued according to how they contribute to the objectives of the firm as a whole, rather than their profitability at the host country location.

Integration is also occurring across geographical lines. Multi-domestic strategies are being superseded by regional and global strategies. The institution or strengthening of regional integration agreements has helped foster regional strategies of TNCs (UN, TCMD, 1992). Some TNCs are beginning to pursue global strategies that include several major regions and cover the allocation of many elements in their value chains. Thus, activities such as research and development or procurement may be situated in an affiliate in a host country or region and linked to operations elsewhere to produce goods and services that are then sold in many markets.

Integration is proceeding at different rates across industries and functions. The cross-national division of labour has undoubtedly proceeded most rapidly in certain manufacturing industries, such as automobiles and electronics, and in services industries including air transport and banking. Research and development, spurred by advances in information technologies, is becoming increasingly cross-border, both within firms and between firms through strategic alliances. But a truly global research-and-development and manufacturing system is still restricted to a relatively small number of firms. Financial management is probably the most global of the major corporate functions, stimulated by electronic transfers and the 24-hour trading day. Marketing has taken advantage of communications technologies, but is still subject to national, regional and cultural differences in consumer tastes and habits. Such activities as data processing and software-writing can take place almost anywhere in the world. On the other hand, regulatory differences mean that accounting and legal reporting are still largely nationally based. In principle, however, virtually every corporate function can be located anywhere and carried out in an integrated manner for a corporate system as a whole. To the extent that this is the most cost-effective way of organizing production—as it seems to be—it becomes a benchmark for firms that have not yet seized this opportunity or have not yet been driven by competitive pressures to re-engineer themselves.

Organizational evolution

The strategies adopted by TNCs go together with changes in organizational structures. In particular, complex strategies have led to more complex mechanisms for organizing international production. Within firms, the decentralization of functional activities has led to a greater use of regional headquarters to manage regional activities, product headquarters located in host economies to manage the regional or global organization of particular products and functional headquarters in host economies to manage firm-wide activities for a specific function. The dispersion of activities along the value chain leads to a dispersion of responsibility for those functions.

In addition, the growth of strategic alliances has led to cross-firm linkages geared to specific activities frequently limited to well-defined periods of time. Strategic alliances usually involve shared functional responsibility and can blur the boundaries of the firm. The multiplicity of intra- and interfirm linkages, combining horizontal and vertical lines of authority and resource flows between units and across countries, can best be described in terms of networks. The growth of such networks is a major source of the deepening of economic linkages between countries.

Although the nature of integration by TNCs has tended to become more complex, many firms continue to maintain older and simpler ways of organizing their international production. This is partly because the conditions leading towards complex integration are still evolving, and also because many of the simpler organizational forms remain useful. In addition, many firms will be unable or unwilling to adapt to changing conditions, but will continue to survive for some time.

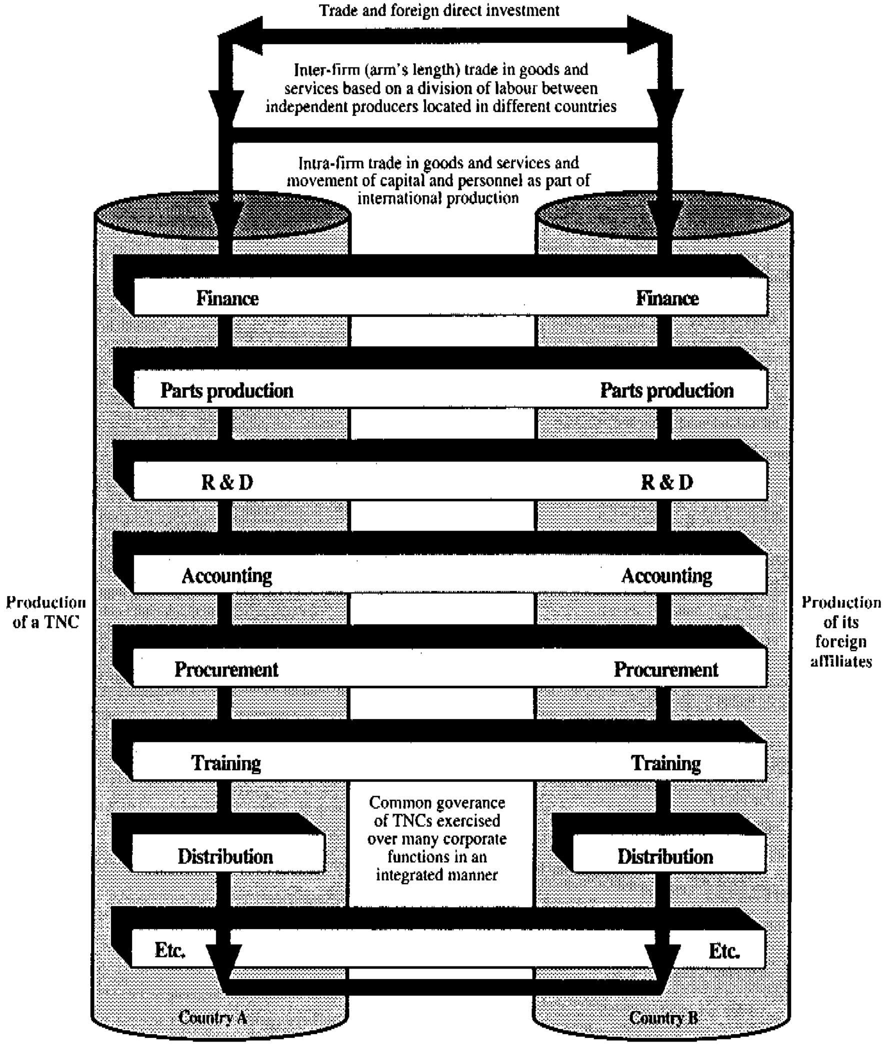
Towards an integrated international production system

Complex strategies, pursued with greater functional integration both within and across firms and over a wide geographical area, combined with network structures of organizing activities, describe integrated international production at the level of the firm. The aggregation of the activities of those TNCs that are involved in such production creates a system of integrated international production at the level of countries. For Japan and the United States, between a quarter and a third of private-sector productive assets are potentially under the common governance of TNCs pursuing integrated international production. For the world as a whole, this percentage may be one-third.

Integration can occur at different levels. The reduction in tariff barriers throughout most of the past 45 years and the recent spread of regional integration agreements have stimulated the exchange of goods and services among countries. This "shallow" form of integration opens many areas of an economy to the influence of international economic developments. The conditions that stimulate shallow integration also encourage TNCs to establish cross-border production systems that lead to "deep" integration, which is integration at the level of the production of goods and services as a result of complex corporate strategies and network structures (figure 2).

Economic integration evolves through distinct stages. Links between countries move from (a) a relatively shallow type, to (b) somewhat deeper but still limited integration through international production by TNCs pursuing multidomestic or simple integration strategies, to (c) links that are deeper, richer and qualitatively more complex. These last links are the features of integrated international production.

Figure 2. Deep integration as a result of functionally integrated international production by transnational corporations



Source: UNCTAD, Programme on Transnational Corporations, *World Investment Report 1993: Transnational Corporations and Integrated International Production* (United Nations publication, Sales No. E.93.II.A.14).

The power of TNCs in stimulating integration stems from their role as central organizers of a broad range of economic activities, and the focus of their organizing efforts is increasingly towards (c). They are helped in this by the liberalization in many host countries of regulations on foreign control of assets. In addition, the proliferation of regional integration agreements—most prominently the Single Market within the European Community—stimulates deep integration, as they increasingly contain provisions liberalizing both trade and FDI. Thus, these agreements, described frequently as free-trade agreements, are also "free-production agreements" among national economies. As a result, the division of labour across countries increases, and trade and technology flows, especially intra-firm, but also interfirm, expand.

Will a global system emerge?

Just how many countries will be affected by this new system remains unclear. Foreign direct investment has tended to be concentrated among the industrialized economies, particularly the Triad, with a clustering of developing countries and economies in transition around each Triad member (figure 3). To some extent, this is because FDI follows trade, which is itself regionally concentrated. However, trade is more concentrated than FDI within regions. This suggests that trade may have played a prominent role in intraregional integration, whereas FDI has a greater capacity for promoting global integration. The emergence of integrated international production, which is likely to be more widely dispersed, should further strengthen the potential of FDI as a force for global integration. If that happens, trade may also begin to show more cross-regional patterns, given the linkages between FDI and trade.

The extent to which individual countries become part of, and benefit from, the emerging integrated international production system depends upon the interaction of their location-specific advantages with the changing firm-specific advantages that TNCs enjoy in the context of integrating their functional activities on a regional or global basis. The emergence of complex integration strategies and structures implies changes in the nature of the ownership, internalization and locational advantages of TNCs. In particular, ownership advantages are becoming system-wide in nature and are exploited through either intra-firm or interfirm mechanisms. The result is a broader range of opportunities for host countries to attract TNC activities, but also higher requirements in terms of human resources and infrastructure, as well as open frameworks for trade and investment. Given the differentiation that prevails as regards attributes of developing host countries, the types of investments they can attract are likely to differ; it should also be recognized that the emerging international production system may leave many developing countries largely untouched for the time being.

Figure 3. Foreign-direct-investment clusters of Triad members, 1990
(Economies in which a Triad member dominates inward foreign-direct-investment stocks and/or flows)

Latin America

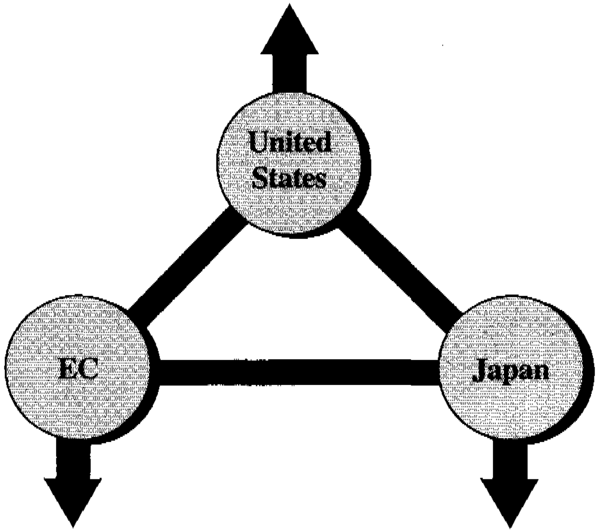
Argentina[b]
Bolivia[ab]
Chile[ab]
Columbia[ab]
Dominican Republic[b]
Ecuador[ab]
El Salvador[b]
Hunduras[b]
Mexico[ab]
Panama[ab]
Peru[b]
Venezuela[ab]

Asia and the Pacific

Bangladesh[a]
India[a]
Pakistan[a]
Philippines[ab]
Taiwan Province of China[ab]
Papua New Guinea[ab]

Africa and West Asia

Ghana[b]
Nigeria[a]
Saudi Arabia[ab]



Central and Eastern Europe

USSR[ab]
Czechoslovakia
Hungary[ab]
Poland[ab]
Slovenia[b]
Yugoslavia[ab]

Latin America

Brazil[ab]
Paraguay[ab]
Uruguay[ab]

Africa and West Asia

Ghana[a]
Kenya[ab]
Morocco[ab]
Nigeria[b]
Tunisia[a]
Zambia[a]
Jordan[b]

Asia and the Pacific

Bangladesh
India[b]
Sri Lanka[b]

Asia and the Pacific

Hong Kong[a]
Malaysia[a]
Republic of Korea[ab]
Singapore[a]
Sri Lanka[ab]
Taiwan Province of China[a]
Thailand[a]
Fiji[a]

Source: UNCTAD, Programme on Transnational Corporations, *World Investment Report 1993: Transnational Corporations and Integrated International Production* (United Nations publication, Sales No. E.93.II.A.14).

[a]In terms of average inward FDI flow, 1988-1990.

[b]In terms of inward FDI stock for 1990.

For those countries that do become part of the system, participation in the international division of labour is increasingly determined and coordinated by TNCs and their affiliates. The possibility to attract specific corporate functions may allow a host country to realize its own comparative advantages better. However, to reap the full benefits, developing countries must build up their indigenous human resources through education and training and their physical and technical infrastructure through investment.

Emerging policy issues

All these changes raise a wide range of policy issues, including corporate nationality, parent-affiliate relations and responsibilities and the international allocation of the taxable income of TNCs and policy options for host countries to maximize the benefits from integrated production. As regards the first three of these issues in particular, the more sophisticated forms of division of labour between foreign affiliates and their parent firms and among foreign affiliates located in a number of countries, a certain decline of economic autonomy of the constituent parts of integrated TNC systems and a certain dispersion of authority throughout those systems are beginning to strain some traditional concepts and approaches.

The nationality of corporations

The established approach in national and international law attributes nationality to corporations in accordance with certain criteria. This is done to ascertain what laws are applicable to corporations or to determine the Government that may exercise diplomatic protection on their behalf. Under conditions of integrated international production, this approach is becoming more difficult to apply and also less meaningful. Increasingly elaborate interpretations are needed to keep legal and policy prescriptions in touch with business realities. The growing use of the national treatment standard and of the broad provisions of investment-protection treaties may, in the long run, decrease the practical value of corporate nationality as a legal concept. Yet, informal understandings to clarify the issues and outline principles and procedures for avoiding or resolving conflicts could help to deal with emerging problems.

Parent-affiliate relations

A second area where integrated international production affects the status and operations of TNCs concerns the relations between parent firms and their foreign affiliates. The traditional legal view is that each affiliate within a larger corporate group is a separate entity with its own rights and responsibilities. In reality, however, the concept of separate corporate personality does not accurately reflect the functional ties between affiliates as a business group, and can hinder the attribution of responsibility among them. In the case of a TNC, the fact that individual affiliates have their assets and operations in several countries poses further jurisdictional and procedural problems that do not confront a domestic company.

Integrated international production compounds those problems. As foreign affiliates become integrated parts of regional and global corporate systems, they may lose autonomy over both managerial and operational aspects. In such an environment, the concept of "parental responsibility" may need to be re-evaluated.

Integrated international production can produce a network structure in which the concept of the parent firm itself takes on a different, more limited meaning. The parent may become more of a coordinating agent for certain corporate activities, which have been dispersed to regional, product-line or functional headquarters or to individual affiliates. The right thing to do may therefore be to focus on relations and responsibilities among all members within a corporate group, rather than on the parent firm or affiliate responsibility; perhaps the concept of "group responsibility" deserves further exploration.

The increasingly complex nature of corporate activities has already resulted in the adoption of group concepts in various areas of law. The practice differs from jurisdiction to jurisdiction, depending on the specific concerns to be tackled. This risks increasing the number of conflicting requirements being imposed on TNCs by States. It would be useful if those countries already experimenting with specific aspects of group concepts were to cooperate whenever some legal uniformity is possible.

Public opinion seems to be relevant to the issue of corporate responsibility. In the public's perception, the business of a parent company and that of its affiliates are typically one and the same. Also, TNCs do recognize that their reputations rest on the behaviour of affiliates as well as parents. Although parent companies have refused to accept legal responsibility for the actions of their affiliates, they have nevertheless been actively involved in out-of-court settlements of law suits brought against their affiliates, especially when environmental catastrophes are involved. Thus, while the law still wrestles with how to allocate responsibility between the parent firm and its foreign affiliates, solutions may be shaped by public opinion.

Taxation

The deepening of TNC linkages also raises questions about where groups of associated enterprises earn taxable income, how it is distributed and how the revenue from taxing their income is ultimately allocated among countries.

The prevailing conventional approach to the allocation of business income for tax purposes has been to treat the parent firm and its foreign affiliates as separate and independent enterprises, and to apply the arm's-length standard for determining the allocation of taxable income from transactions involving related or unrelated parties. Given the widespread use of various intra-firm arrangements under conditions that differ from those prevailing between independent parties, a number of tests have been developed over the years aimed at determining whether related-party transactions conform with arm's-length standards for tax purposes. However, with the growing complexity of the intra-firm division of labour, it is harder to identify separate costs and earnings for individual transactions and to compare them with unrelated-party transactions.

Those difficulties have led authorities to explore other approaches and methods for allocating income. Overall, the general norm appears to be to use the separate enterprise approach when comparable prices exist, and to use an apportionment approach that takes the TNC system as a whole when they do not exist. Finding satisfactory solutions matters as much to Governments as to TNCs. Governments need to prevent an erosion of their revenue base while, at the same time, providing a climate that attracts and retains FDI.

An integrated policy framework

Apart from the legal and policy issues, integrated international production has also implications for the national policy framework concerning TNCs. The rapid growth of FDI during the 1980s has made Governments more aware of the benefits that such investment can bring to an economy in terms of capital, technology, management and access to established distribution networks. In the resulting competition to attract TNCs, FDI regimes in many countries have become broadly similar. In particular, differences regarding right of establishment, fair and equitable treatment, national treatment, nationalisation, compensation, dispute settlement and the repatriation of earnings become less effective as a means to capture FDI. Instead, the nature of the overall policy framework and the economic conditions of production become the key to locational decisions.

There is general agreement that efficient economic institutions and a stable macroeconomic climate are preconditions for attracting FDI. Beyond that, Governments must provide efficient infrastructure and facilitate international trade exports to allow firms to bind into the international production system. However, since integrated international production involves more sophisticated corporate strategies and structures, government policies need to become more sophisticated too. In particular, since every part of the value chain can potentially be located anywhere in the world, Governments need to focus their promotional strategies on attracting those functions in which their countries have a comparative advantage. Furthermore, Governments could give more attention to reducing transactions costs for potential investors, providing post-approval support services and attracting specific TNCs of particular value to the national economy.

The *World Investment Report 1992* suggested that policy discussions—nationally, regionally and multilaterally—might benefit from greater attention to FDI issues (UN,TCMD, 1992). As host countries, especially developing countries, seek to boost their competitive position in a world economy that is becoming integrated at the production level, their ability to dovetail their domestic economies to the strategies and structures of TNCs becomes increasingly critical. At the international level, the need to avoid "policy competition" among host countries, as each seeks to attract TNC activities, expands the range of policy issues on the international agenda and may lead to a greater concern for policy harmonization. ■

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