UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

World Investment Report 2002
Transnational Corporations
and
Export Competitiveness

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WORLD INVESTMENT REPORT 2002
TRANSNATIONAL CORPORATIONS
AND EXPORT COMPETITIVENESS

Page 86: Table IV.1. The world's top 100 non-financial TNCs, ranked by foreign assets, 2000
Total assets of Repsol-YPF (ranked 20th) should read $48,776, not $487,763.

Page 127: Table V.3. Intel's manufacturing sites, January 2002 should read as follows:

Table V.3. Intel's manufacturing sites, January 2002

Country	Facility	Function	Year built	Current process technology	Employees
United States	Facility 1	Wafer fabrication	1978, 1992, 1996, 1999, 2003[a]	0.13-, 0.25-, 0.35-micron	16 000
	Facility 2	Wafer fabrication	1980, 1993, 2002[a]	0.13-, 0.18-, 0.25-, 0.35-micron	5 500
	Facility 3	Wafer fabrication	1988	0.13-, 0.18-micron	8 500
	Facility 4	Wafer fabrication	1994	0.28-, 0.35-, 0.50-micron	2 700
	Facility 5	Wafer fabrication, assembly and testing	1996, 1999, 2001	0.13-, 0.18- micron	10 000
	Facility 6	Systems Manufacturing	1996	..	1 400
	Facility 7	Wafer fabrication	2001	0.18-micron	1 845
Ireland	Facility	Wafer fabrication	1993, 1998, 2004[a]	0.18-, 0.25-micron	3 400
Israel	Facility 1	Wafer fabrication	1985	0.35-, 0.50-, 0.75-, 1.0-micron	800
	Facility 2	Wafer fabrication	1999	0.18-micron	1 500
Malaysia	Facility 1	Board manufacturing, assembly and testing	1996, 1997	..	7 790
	Facility 2	Assembly and testing	1988, 1994, 1997	..	
Philippines	Facility 1	Assembly and testing	1997, 1998	..	5 984
	Facility 2	Assembly and testing	1979, 1995	..	
China	Facility	Assembly and test	1997, 2001	..	1 227
Costa Rica	Facility	Assembly and test	1997, 1999	..	1 845

Source: www.intel.com, January 2002.
[a] Estimated construction completion.

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<u>Page 299</u>: first paragraph, line 3, …"except for New Zealand"…
Should read …"except for Australia and New Zealand"....

<u>Page 315</u>: the column of 1980 under North America
For Canada, should read 23,783
For the United States, should read 215, 375.

<u>Page 315</u>: Annex table B.4, the column of 1980 United States
"United States 0", should read "United States –".

NOTE

UNCTAD serves as the focal point within the United Nations Secretariat for all matters related to foreign direct investment and transnational corporations. In the past, the Programme on Transnational Corporations was carried out by the United Nations Centre on Transnational Corporations (1975-1992) and the Transnational Corporations and Management Division of the United Nations Department of Economic and Social Development (1992-1993). In 1993, the Programme was transferred to the United Nations Conference on Trade and Development. UNCTAD seeks to further the understanding of the nature of transnational corporations and their contribution to development and to create an enabling environment for international investment and enterprise development. UNCTAD's work is carried out through intergovernmental deliberations, technical assistance activities, seminars, workshops and conferences.

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The following symbols have been used in the tables:

Two dots (..) indicate that data are not available or are not separately reported. Rows in tables have been omitted in those cases where no data are available for any of the elements in the row;

A dash (-) indicates that the item is equal to zero or its value is negligible;

A blank in a table indicates that the item is not applicable, unless otherwise indicated;

A slash (/) between dates representing years, e.g., 1994/95, indicates a financial year;

Use of a hyphen (-) between dates representing years, e.g., 1994-1995, signifies the full period involved, including the beginning and end years;

Reference to "dollars" ($) means United States dollars, unless otherwise indicated;

Annual rates of growth or change, unless otherwise stated, refer to annual compound rates;

Details and percentages in tables do not necessarily add to totals because of rounding.

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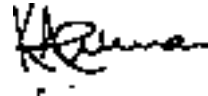
PREFACE

In today's globalizing world economy, no country can sustain growth or achieve development without active participation in world trade. All countries need exports to help them raise standards of living and escape poverty. For developing countries in particular, the challenge is not only to expand and diversify their exports, but also to make them more competitive.

Transnational corporations (TNCs) are increasingly involved in this process, providing additional resources and technology and facilitating access to new markets. But in order to take full advantage of their partnerships with TNCs, governments must do their utmost to mobilize their own countries' resources and capabilities. Investments in education and health pay enormous dividends in building productive labour forces. Investments in science and technology — and in particular information and communications technologies — are essential if countries are to keep pace with an increasingly knowledge-based economy. These are areas where far-sighted government policies can make the difference between integration and marginalization.

This year's *World Investment Report* examines the role of TNCs in making the exports of developing and transition countries more competitive. It highlights the strategies used by TNCs in their international production networks. And it aims to help countries — especially the least developed countries — adopt sound policies, attract foreign investment and make their exports, as they surely should be, a key part of their strategy to achieve Millennium Development Goals. I hope this report reaches a wide readership and strengthens global partnerships for development.

Kofi A. Annan
Secretary-General of the United Nations

New York, July 2002

ACKNOWLEDGEMENTS

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PART ONE

TRENDS IN INTERNATIONAL PRODUCTION

CHAPTER I

GLOBAL TRENDS

Introduction

Global foreign direct investment (FDI) flows declined sharply in 2001. Inflows fell by 51 per cent and outflows by 55 per cent. This reversal – after steady growth since 1991 and very large rises in 1999 and 2000 – reflects two factors: the slowing of economic activity in major industrial economies and a sharp decrease in their stock market activity. These combined to slow down new international investment, particularly the cross-border mergers and acquisitions (M&As) that have driven recent FDI. Developed countries have borne the brunt of declining FDI (59 per cent) but developing countries have also suffered (although only by a relatively small 14 per cent). The economies in transition of Central and Eastern Europe (CEE) are the only ones to have remained immune to this general downturn (a 2 per cent increase).[1]

The fall in FDI in 2001 is likely to continue for most countries in 2002. However, over the longer term, international production – production under the common governance of transnational corporations (TNCs) – seems set to raise its share of global economic activity. Part One of *WIR02* deals with trends in FDI flows and the role of TNCs in host economies in terms of such aspects as FDI stock and flows, sales, value added, employment, profits, and research and development (R&D). It also benchmarks the FDI performance and potential of host countries and looks at the largest TNCs.

The growth of international production is driven by economic and technological forces. It is also driven by the ongoing liberalization of FDI and trade policies. National policy regimes are converging towards a more welcoming stance on FDI, as competition for investment intensifies. The competition is particularly marked for export-oriented investment, as countries try to boost export competitiveness in a setting of accelerating technological change and freer, closer-knit markets. Part Two analyses the role of TNCs in the export competitiveness of developing countries. Part Three then looks at policies that can be pursued to attract export-oriented FDI and increase benefits from it.

A. Trends in FDI flows

World FDI inflows and outflows in 2001 amounted to $735 billion and $621 billion, respectively (table I.1), a drop of 51 per cent in the former and 55 per cent in the latter.[2] This was the first drop in inflows since 1991 and in outflows since 1992, and the largest over three decades in both.[3] FDI inflows to developed countries fell by about half, from $1 trillion in 2000 to $503 billion in 2001. Inflows to developing countries decreased by much less – 14 per cent – from $238 billion to $205 billion. Trends in FDI outflows were very similar: outward investment from developed countries declined from $1.4 trillion in 2000 to $0.6 trillion, while that from developing countries also declined but by much less (annex table B.2).

Preliminary data for such major developed countries as Germany, France, Japan and the United States do not provide any clear indication for the future. For some countries, they suggest that both outflows[4] and inflows[5] may decline further in 2002, while for others the data suggest that either outflows or inflows may decline. The picture is similar for developing countries. FDI flows to China will probably rise in 2002, while those to Argentina, Brazil and Indonesia are likely to remain well below the peak of the 1990s.

The decline in FDI in 2001 reflects a slowdown in the world economy. More than a dozen countries – including the world's three largest economies – fell into recession

in 2001 (United Nations Department of Economic and Social Affairs and UNCTAD, 2002; UNCTAD, 2002a). To the extent that the events of 11 September 2001 exacerbated this slowdown, they may also have contributed to the further decline in FDI. Still, the impact of these events on overseas investment plans of TNCs was modest according to various surveys (box I.1). FDI in 2001 was higher than that in 1998 ($696 billion), after which dramatic increases in cross-border M&As led to record flows in 1999 and 2000.

The decline in FDI flows in 2001 followed rapid increases during the late 1990s. There was a similar pattern during the late 1980s and early 1990s, and in 1982-1983.

Thus, this is the third downward cycle in FDI, each punctuating a long upward trend in FDI every ten years or so. These swings reflect changes in several factors. The main ones are business cycles, stock market sentiment and M&As. These short-term factors work in tandem with longer-term factors, sometimes offsetting and at other times reinforcing them.

There is, on the other hand, a stable and positive relationship between global FDI flows and the level and growth of world GDP.[6] Technological change, shrinking economic distance and new management methods favour international production. Their impact is, however, countered by cyclical

Table I.1. Selected indicators of FDI and international production, 1982-2001
(Billions of dollars and percentage)

Item	Value at current prices (Billions of dollars)			Annual growth rate (Per cent)					
	1982	1990	2001	1986-1990	1991-1995	1996-2000	1999	2000	2001
FDI inflows	59	203	735	23.6	20.0	40.1	56.3	37.1	-50.7
FDI outflows	28	233	621	24.3	15.8	36.7	52.3	32.4	-55.0
FDI inward stock	734	1 874	6 846	15.6	9.1	17.9	20.0	22.2	9.4
FDI outward stock	552	1 721	6 582	19.8	10.4	17.8	17.4	25.1	7.6
Cross border M&As [a]	..	151	601	26.4[b]	23.3	49.8	44.1	49.3	-47.5
Sales of foreign affiliates	2 541	5 479	18 517[c]	16.9	10.5	14.5	34.1	15.1[c]	9.2[c]
Gross product of foreign affiliates	594	1 423	3 495[d]	18.8	6.7	12.9	15.2	32.9[d]	8.3[d]
Total assets of foreign affiliates	1 959	5 759	24 952[e]	19.8	13.4	19.0	21.4	24.7[e]	9.9[e]
Exports of foreign affiliates	670	1 169	2 600[f]	14.9	7.4	9.7	1.9	11.7[f]	0.3[f]
Employment of foreign affiliates (thousands)	17 987	23 858	53 581[g]	6.8	5.1	11.7	20.6	10.2[g]	7.1[g]
Memorandum									
GDP (in current prices)	10 805	21 672	31 900	11.5	6.5	1.2	3.5	2.5	2.0
Gross fixed capital formation	2 285	4 841	6 680[h]	13.9	5.0	1.3	4.0	3.3	..
Royalties and licence fee receipts	9	27	73[h]	22.1	14.3	5.3	5.4	5.5	..
Exports of goods and non-factor services	2 081	4 375	7 430[i]	15.8	8.7	4.2	3.4	11.7	-5.4

Source: UNCTAD, based on its FDI/TNC database and UNCTAD estimates.

[a] Data are only available from 1987 onwards.
[b] 1987-1990 only.
[c] Based on the following regression result of sales against FDI inward stock (in millions dollars) for the period 1982-1999: sales=323+2.6577*FDI inward stock.
[d] Based on the following regression result of gross product against FDI inward stock (in millions dollars) for the period 1982-1999: gross product=364+0.4573*FDI inward stock.
[e] Based on the following regression result of assets against FDI inward stock (in millions dollars) for the period 1982-1999: Assets= -1 153+3.8134*FDI inward stock.
[f] For 1995-1998, based on the regression result of exports of foreign affiliates against FDI inward stock (in millions dollars) for the period 1982-1994: Export=254+0.474*FDI inward stock. For 1999-2001, the share of exports of foreign affiliates in world export in 1998 (34 per cent) was applied to obtain the values.
[g] Based on the following regression result of employment (in thousands) against FDI inward stock (in millions dollars) for the period 1982-1999: employment=12 138+6.0539*FDI inward stock.
[h] Data are for 2000.
[i] WTO estimates.

Note: Not included in this table are the value of worldwide sales by foreign affiliates associated with their parent firms through non-equity relationships and the sales of the parent firms themselves. Worldwide sales, gross product, total assets, exports and employment of foreign affiliates are estimated by extrapolating the worldwide data of foreign affiliates of TNCs from France, Germany, Italy, Japan and the United States (for sales and employment) and those from Japan and the United States (for exports), those from the United States (for gross product), and those from Germany and the United States (for assets) on the basis of the shares of those countries in the worldwide outward FDI stock.

fluctuations in income and growth. On the supply side, FDI is affected by the availability of investible funds from corporate profits or loans, which is in turn affected by domestic economic conditions (*WIR93*, p. 92). On the demand side, growing overseas markets lead TNCs to invest, while depressed markets inhibit them. The more interdependent host and home economies become, and the more widely a recession or upswing spreads, the greater are the corresponding movements in global FDI (*WIR93*, p. 94).

Data for 1980-2001 show that a bulge in global FDI accompanies high economic growth, and a trough accompanies low growth (figure I.1). However, the relationship between

GDP growth and FDI is not uniform across groups of economies. They go together in developed (figure I.2) but not in developing countries (figure I.3). In CEE, FDI inflows have continued to grow since liberalization began in the early 1990s, and this region has not seen an FDI downturn during the current decline (figure I.4). One explanation for the different patterns of FDI flows is that business cycles spread much faster across developed countries than others. A supplementary explanation may be that some countries (as in CEE) had been cut off from substantial FDI flows for so long that they have a lot of "catching up" to do – short-term cycles do not affect their attractiveness.

Box I.1. Impact of the September 11 events on FDI flows

The effects of the terrorist attacks of 11 September 2001 on FDI flows are difficult to gauge. Company surveys suggest that they were limited. In October/November 2001, a survey by UNCTAD, the *Agence Française pour les Investissements Internationaux* and Andersen Consulting revisited a number of the firms they had surveyed before 11 September (UNCTAD, 2001a). The finding was that few expected to change their investment plans in the light of the attacks. Similarly, a survey by the Japan External Trade Organization (JETRO) found in October 2001 that nearly half the Japanese firms surveyed did not expect to change their FDI plans (box figure I.1.1).[a] These findings are consistent with a survey by A.T. Kearney in September/October 2001: two-thirds of corporate executives of the world's 1,000 largest firms said that they intended to invest abroad at more or less the levels already planned, 16 per cent said that their FDI in 2001 would increase, and 20 per cent that it would decline.[b] A survey of 643 firms by the Multilateral Investment Guarantee Agency (MIGA) in October 2001 found that there was no effect on the expansion plans of 64 per cent of respondents (MIGA, 2002). Virtually none of the respondents intended to cancel their FDI projects.[c]

On the other hand, the higher level of uncertainty created by the September 11 events, including higher perceived political risk (associated with war and terrorism), may have induced some

companies to adopt a "wait-and-see" attitude. Firms may have placed planned investments on hold until they had a clearer picture of economic developments and the longer-term impact of the events on the United States. This was reflected in the JETRO survey, according to which more than half the respondents were unable to make an assessment. Some companies are reported to have cancelled planned investments after the September 11 events.[d]

Box figure I.1.1. Effects of the September 11 events on FDI plans of Japanese TNCs

(Percentage)
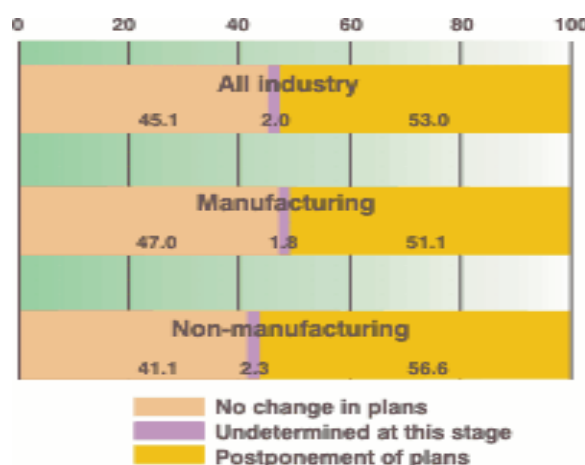
Source: UNCTAD, based on the data provided by the JETRO International Research Division.

Source: UNCTAD.

[a]   The survey was conducted by JETRO in October 2001. The results are based on responses by 659 respondents out of 720 Japanese TNCs (both manufacturing and services). The results were made available to UNCTAD by the JETRO International Economic Research Division.
[b]   A.T. Kearney Press release, 8 October 2001.
[c]   Based on some 130 respondents.
[d]   *Business Latin America* (EIU), 24 September 2001.

Figure I.1. FDI inflows and real growth rates of GDP in the world, 1980-2001
(Billions of dollars and percentage)

Source: UNCTAD, FDI/TNC database, data from UNCTAD secretariat and UNDESA.

Figure I.2. FDI inflows and real growth rates of GDP in developed countries, 1980-2001
(Billions of dollars and percentage)
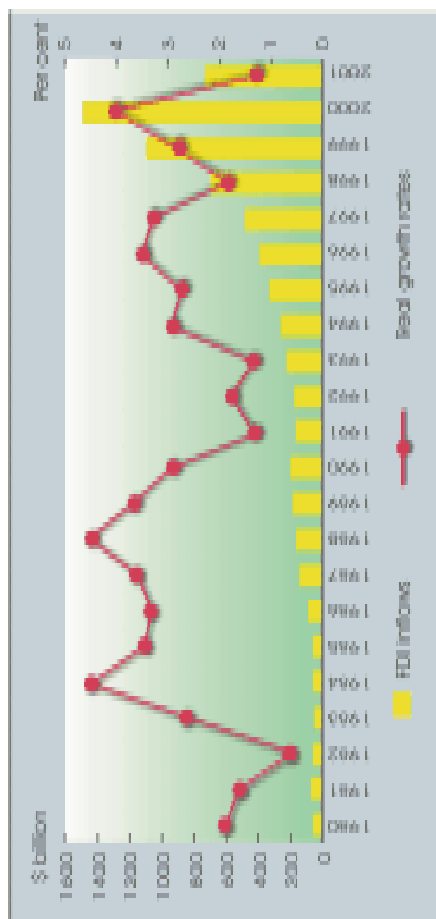
Source: UNCTAD, FDI/TNC database, data from UNCTAD secretariat and UNDESA.

Figure I.3. FDI inflows and real growth rates of GDP in developing countries, 1980-2001
(Billions of dollars and percentage)
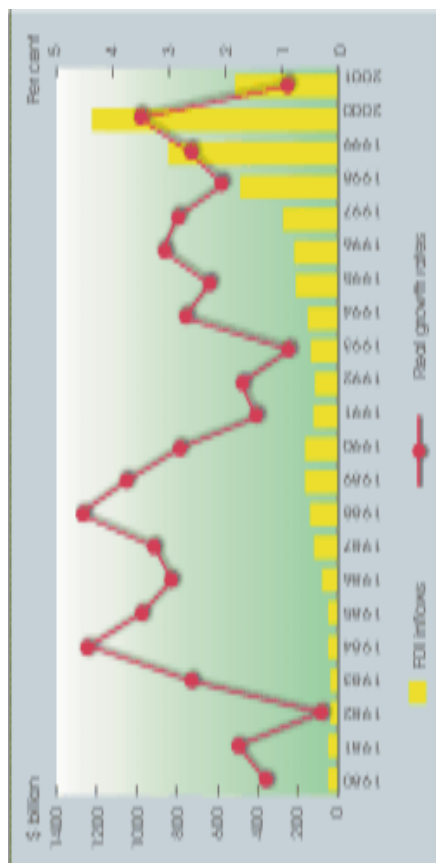
Source: UNCTAD, FDI/TNC database, data from UNCTAD secretariat and UNDESA.

Figure I.4. FDI inflows and real growth rates of GDP in Central and Eastern European countries, 1990-2001
(Billions of dollars and percentage)
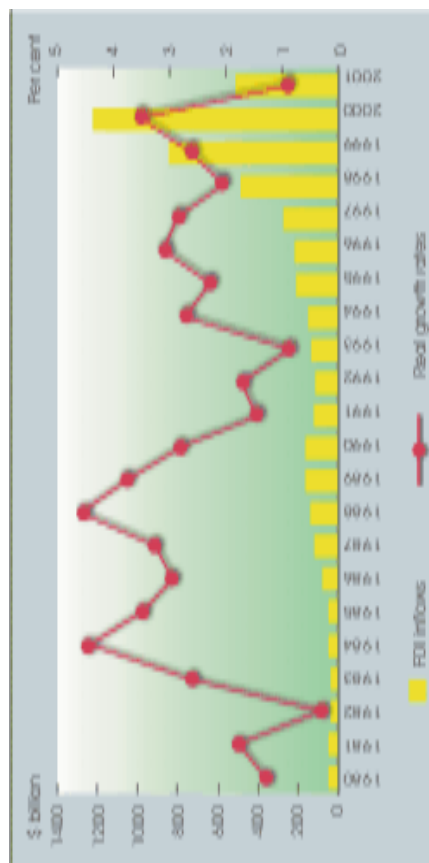
Source: UNCTAD, FDI/TNC database, data from UNCTAD secretariat and UNDESA.

The economic slowdown has intensified competitive pressures, forcing companies to search for cheaper locations. This may have resulted in increased FDI in activities that benefit from relocation to, or expansion in, low-wage economies. Outflows may also have risen from countries in which domestic markets have been growing slower than foreign markets. There are signs that both factors have contributed to the recent increase of Japanese FDI to China (chapter III.A.3**)** and the growth of flows to CEE. More generally, there has been a redistribution of FDI towards developing countries and CEE, where growth has recently been higher than in developed countries. The shares of developing countries and CEE in global FDI inflows reached 28 per cent and 4 per cent respectively in 2001, compared to an average of 18 per cent and 2 per cent in the preceding two years (table I.2).[7] The rise in developing countries' shares may also reflect the further liberalization of their FDI regimes[8] – a trend that continued in 2001 (box I.2) and was reinforced by the growth in the number of bilateral investment treaties (BITs) and double taxation treaties (DTTs) (box I.3).

Table I.2. Distribution of world FDI inflows, 1986-2001
(Percentage)

Region	1986-1990	1991-1992	1993-1998	1999-2000 [a]	2001
Developed countries	82.4	66.5	61.2	80.0	68.4
Western Europe	38.4	46.0	33.7	51.9	45.7
European Union	36.2	45.3	32.1	50.2	43.9
Japan	0.2	1.2	0.3	0.8	0.8
United States	34.6	12.7	21.7	22.6	16.9
Developing countries	17.5	31.2	35.3	17.9	27.9
Africa	1.8	2.2	1.8	0.8	2.3
Latin America and the Caribbean	5.0	11.7	12.3	7.9	11.6
Asia and the Pacific	10.6	17.4	21.2	9.2	13.9
Central and Eastern Europe	0.1	2.2	3.5	2.0	3.7
Memorandum					
Least developed countries	0.4	1.1	0.6	0.4	0.5

Source: UNCTAD, FDI/TNC database.

[a] Years characterized by exceptionally high cross-border M&A activity.

Note: The shaded years are FDI trough periods, while non-shaded years are FDI growth periods.

Box I.2. Changes in FDI regimes in 2001

In 2001, 208 changes in FDI laws were made by 71 countries, raising the total number of annual changes to its highest level since the *WIR* began reporting on them (box table I.2.1). Of the changes in 2001, 194 (93 per cent) created a more favourable investment climate (box figure I.2.1) in an effort to attract more FDI. The Asian and Pacific region introduced the largest number of such changes (43 per cent).

Box table I.2.1. National regulatory changes, 1991-2001

Item	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Number of countries that introduced changes in their investment regimes	35	43	57	49	64	65	76	60	63	69	71
Number of regulatory changes	82	79	102	110	112	114	151	145	140	150	208
of which:											
-more favourable to FDI [a]	80	79	101	108	106	98	135	136	131	147	194
-less favourable to FDI [b]	2	-	1	2	6	16	16	9	9	3	14

Source: UNCTAD, based on national sources.

[a]   Including liberalizing changes or changes aimed at strengthening market functioning, as well as increased incentives.
[b]   Including changes aimed at increasing control as well as reducing incentives.

/...

Box I.2. Changes in FDI regimes in 2001 (concluded)

Box figure I.2.1. Types of changes in FDI laws and regulations, 2001

Source: **UNCTAD, based on national sources.**

Source: UNCTAD.

Box I.3. BITs and DTTs in 2001

In 2001 alone, a total of 97 countries (the largest number ever) were involved in the conclusion of 158 BITs, bringing the total from 1,941 at the end of 2000 to 2,099 by the end of 2001. Developing countries have intensified the practice of concluding BITs among themselves: 66 in 2001 (compared with 36 in 2000) (box figure I.3.1). Asian countries concluded 70 BITs (19 among themselves), followed by African countries with 58 BITs (29 among themselves), and Latin American countries 21 (5 among

Box figure I.3.1. BITs concluded in 2001, by country group

Source: **UNCTAD, BITs and DTTs databases.**

/...

themselves). CEE countries signed 18 BITs with developing countries, 12 with the developed ones and 10 among themselves.

The least developed countries (LDCs) have shown a keen interest in entering into BITs (see chapter II.D). A total of 23 LDCs were involved in the conclusion of 51 BITs in 2001. Of these, 13 were signed among the LDCs themselves, 24 with the rest of the developing world, 12 with developed countries and two with economies in transition.

The total number of DTTs grew from 2,118 at the end of 2000 to 2,185 by the end of 2001. A total of 63 countries were involved (19 from the developed world, 30 from developing countries and 14 from CEE) in 67 DTTs (15 among countries of the developing world, six between countries of CEE) (box figure I.3.2).

Box figure I.3.2. DTTs concluded in 2001, by country group
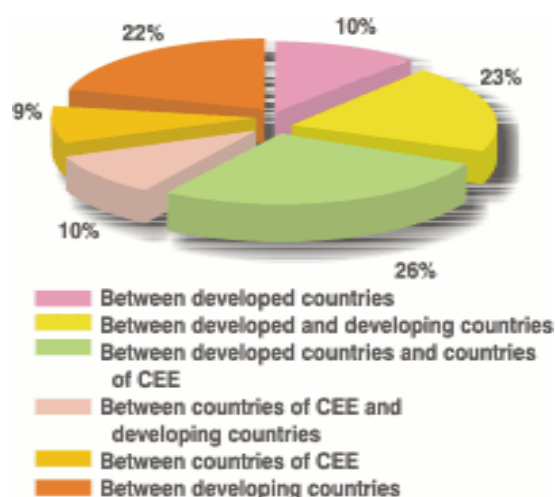
Source: **UNCTAD, BITs and DTTs databases.**

As part of its work programme on international investment agreements, UNCTAD has organized several BIT and DTT negotiation facilitation events since 1998 that resulted in the conclusion of a number of these treaties. These events have provided a platform for developing countries to negotiate BITs with other interested countries, and among themselves. For that purpose, UNCTAD has provided the facilities and technical support, including the services of a resource person, but has not participated in the negotiations themselves. Such events have considerably reduced the cost and time involved in negotiating and finalizing BITs among the countries involved, and they have been highly successful.

Source: UNCTAD.

At the multilateral level, member countries of the World Trade Organization (WTO) have addressed investment issues since the Organization's first Ministerial Conference in Singapore in 1996. Since then, WTO members have been engaged in an analysis of the relationships between international trade and investment and their implications for economic growth and development (box I.4). The issue of investment figured prominently in the preparatory phase for the Fourth WTO Ministerial Conference, which was held in Doha, Qatar, from 9 to 14 November 2001. It was debated until the final hours of the conference and resulted in an agreement that gave further direction to the WTO's work (box I.5). Part of this work involves a substantial technical assistance effort aimed at helping developing countries to evaluate the implications of closer multilateral cooperation for their development process. Relevant international organizations, including UNCTAD, are called upon to provide such assistance (box I.6).

In spite of the substantial liberalizing measures of the past decade, developing countries still attract less than a third of world FDI flows, and these flows remain highly concentrated. In 2001, the five largest host countries in the developing world received 62 per cent of total inflows and the 10 largest received three-quarters (figure I.5). The level of concentration of FDI in developing countries has in fact risen in recent years (figure I.5). Flows to the 49 LDCs, in particular, remain marginal; in 2001, they received only 2 per cent of total FDI flows to developing countries and 0.5 per cent of world FDI (table I.2).

However, absolute values tell only half the story. A different picture emerges once

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Box I.4. Issues discussed in the WTO Working Group on the Relationship between Trade and Investment

The agenda of the Working Group has been as follows:

"Implications of the relationship between trade and investment for development and economic growth, including: economic parameters relating to macroeconomic stability, such as domestic savings, fiscal position and the balance of payments; industrialization, privatization, employment, income and wealth distribution, competitiveness, transfer of technology and managerial skills; domestic conditions of competition and market structures.

The economic relationship between trade and investment: the degree of correlation between trade and investment flows; the determinants of the relationship between trade and investment; the impact of business strategies, practices and decision-making on trade and investment, including through case studies; the relationship between the mobility of capital and the mobility of labour; the impact of trade policies and measures on investment flows, including the effect of the growing number of bilateral and regional arrangements; the impact of investment policies and measures on trade; country experiences regarding national investment policies, including investment incentives and disincentives; the relationship between foreign investment and competition policy.

Stocktaking and analysis of existing international instruments and activities regarding trade and investment: existing WTO provisions; bilateral, regional, plurilateral and multilateral agreements and initiatives; implications for trade and investment flows of existing international instruments.

On the basis of the work above: identification of common features and differences, including overlaps and possible conflicts, as well as possible gaps in existing international instruments; advantages and disadvantages of entering into bilateral, regional and multilateral rules on investment, including from a development perspective; the rights and obligations of home and host countries and of investors and host countries; the relationship between existing and possible future international cooperation on investment policy and existing and possible future international cooperation on competition policy" (WTO, 1998, annex 1: checklist of issues suggested for study).

The WTO already addresses certain aspects of foreign investment. In particular, the Agreement on Trade-related Investment Measures (TRIMs) elaborates on existing GATT provisions by prohibiting certain performance requirements. The General Agreement on Trade in Services (GATS) contains rules relating to the establishment by a service supplier of a "commercial presence" abroad. And the Agreement on Subsidies and Countervailing Measures bears on certain aspects of incentives, especially as regards export-oriented FDI.

Source: UNCTAD, based on WTO, 1998.

FDI inflows are adjusted for the size of the economy. In relation to the size of their markets, the performance of developing countries improves relative to developed countries (annex table A.I.1). This is true overall and for many subregions and countries that receive small amounts of FDI; in particular, regions and subregions such as Central Asia, South, East and South-East Asia and Latin America and the Caribbean performed better than most of the others in the 1990s.

In terms of FDI per capita (annex table A.I.1), developing countries in general, and South, East and South-East Asia in particular, receive less than developed countries, reflecting their larger populations. Latin America and the Caribbean receives more FDI per capita than Asia. The share of non-EU countries in Western Europe in FDI inflows and outflows improves once flows are normalized by GDP or population. The position of CEE also improves if FDI is assessed by economic size or in absolute values.

Box I.5. The Doha WTO Ministerial Conference on investment

After difficult negotiations, the Doha WTO Ministerial Conference agreed on the following text with respect to investment (paras. 20-22):

20. "Recognizing the case for a multilateral framework to secure transparent, stable and predictable conditions for long-term cross-border investment, particularly foreign direct investment, that will contribute to the expansion of trade, and the need for enhanced technical assistance and capacity-building in this area as referred to in paragraph 21, we agree that negotiations will take place after the Fifth Session of the Ministerial Conference on the basis of a decision to be taken, by explicit consensus, at that Session on modalities of negotiations.

21. We recognize the needs of developing and least-developed countries for enhanced support for technical assistance and capacity building in this area, including policy analysis and development so that they may better evaluate the implications of closer multilateral cooperation for their development policies and objectives, and human and institutional development. To this end, we shall work in cooperation with other relevant intergovernmental organisations, including UNCTAD, and through appropriate regional and bilateral channels, to provide strengthened and adequately resourced assistance to respond to these needs.

22. In the period until the Fifth Session, further work in the Working Group on the Relationship Between Trade and Investment will focus on the clarification of: scope and definition; transparency; non-discrimination; modalities for pre-establishment commitments based on a GATS-type, positive list approach; development provisions; exceptions and balance-of-payments safeguards; consultation and the settlement of disputes between Members. Any framework should reflect in a balanced manner the interests of home and host countries, and take due account of the development policies and objectives of host governments as well as their right to regulate in the public interest. The special development, trade and financial needs of developing and least-developed countries should be taken into account as an integral part of any framework, which should enable Members to undertake obligations and commitments commensurate with their individual needs and circumstances. Due regard should be paid to other relevant WTO provisions. Account should be taken, as appropriate, of existing bilateral and regional arrangements on investment."

In the closing plenary session of the Doha Ministerial Conference, on 14 November 2001, the chair stated that, as far as paragraphs 20, 23, 26 and 27 of the Declaration were concerned: "with respect to the reference to an 'explicit consensus' being needed, in these paragraphs, for a decision to be taken at the Fifth Session of the Ministerial Conference, my understanding is that, at that session, a decision would indeed need to be taken by explicit consensus, before negotiations on trade and investment and trade and competition policy, transparency in government procurement, and trade facilitation could proceed. In my view, this would also give each member the right to take a position on modalities that would prevent negotiations from proceeding after the Fifth Session of the Ministerial Conference until that member is prepared to join in an explicit consensus."[a]

Source: UNCTAD, based on "Ministerial declaration", Ministerial Conference, Fourth Session, Doha, 9-14 November, WT/MIN(01)/DEC/W/1 (14 November 2001).

[a] http://www.wto.org/english/thewto_e/minist_e/min01_e/min01_chair_speaking_e.htm.

Box I.6. UNCTAD's post-Doha technical assistance work programme in the area of investment

In response to the WTO Doha Ministerial, and after consultations with a wide range of delegations, UNCTAD developed a technical assistance programme that focuses on the three elements identified in paragraph 21 of the Doha Ministerial Declaration: policy analysis and development, human resources capacity-building and institutional capacity-building. A number

of these activities are undertaken jointly with the WTO.

As of June 2002, two intensive training workshops (in Pretoria and Alexandria), one regional seminar (in Singapore), and two national seminars (in China and Indonesia) had been held.

Source: UNCTAD.

Figure I.5. **The share of the largest 5, 10 and 30 recipients in total FDI inflows to developing countries, 1990-2001**
(Percentage)
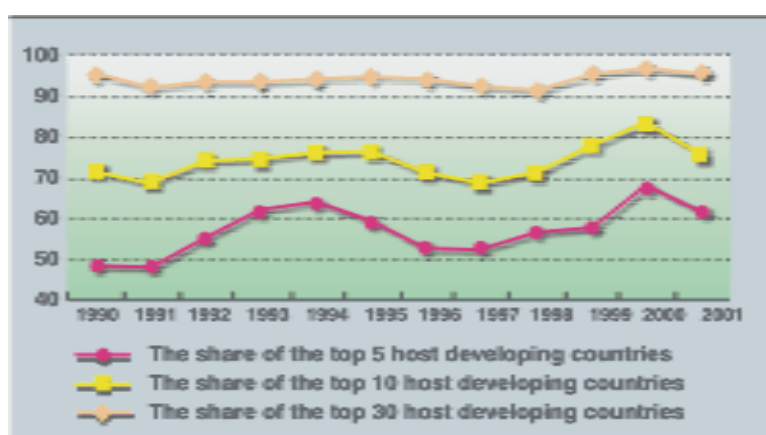
Source: UNCTAD, FDI/TNC database.

The decline in FDI flows in 2001 largely reflects a fall in cross-border M&As – the principal vehicle since the mid-1990s for FDI in developed countries.[9] The decline in cross-border M&As is, in turn, attributable to slower economic growth and prospects of reduced profit, particularly in developed markets. It may also be the result of a lull in the consolidation process of certain industries acquired through M&As,[10] reflecting, for example, companies' need to digest the acquisitions made. Finally, the fall in share prices has played an important role because it has meant a reduction in the value of (assets acquired through) M&As. Moreover, the exchange of shares is an important means of financing M&As. In 2000, for instance, shares were used to finance some 44 per cent of all cross-border M&A deals.[11] In 2001, the market value of stocks listed in the six major stock exchanges fell by one-third (from $29 trillion at the peak in 2000 to $19 trillion at the trough in September 2001).[12] As a result, the value

of cross-border M&As concluded through the exchange of shares fell to 24 per cent of the total in 2001. Lower share prices also made it difficult for companies to raise funds by issuing new stock, again with knock-on effects on FDI.[13]

As a result, the total *value* of cross-border M&As completed in 2001 ($594 billion – see annex tables B.7 and B.8) was only half of what it had been in 2000.[14] In relation to GDP also, the share of cross-border M&As almost halved to less than 2 per cent, a level comparable to that of 1998 (figure I.6).[15] The fall in M&As, particularly, reflected the decline in mega mergers. The value of all worldwide M&As in 2001, domestic and foreign (around $1.6 trillion), was also half the value reported in 2000.[16]

The *number* of cross-border M&As also declined, from more than 7,800 in 2000 to some 6,000 in 2001. The number of cross-border deals worth over $1 billion fell from 175 to 113, their total value falling from $866 billion to $378 billion (table I.3). The earlier sharp increases in FDI in 1999 and 2000 – by some 56 per cent and 37 per cent, respectively – were driven mainly by these mega M&As.[17]

It could be argued that 2001 saw a return of FDI to "normal" levels after the hectic M&A activity (primarily in developed countries) of the previous two years. In developing countries and economies in transition, FDI in 2001 in fact proved fairly resilient despite the global economic downturn and the September 11 events. This resilience

Figure I.6. Values of cross-border M&As and their ratio to world GDP, 1987-2001
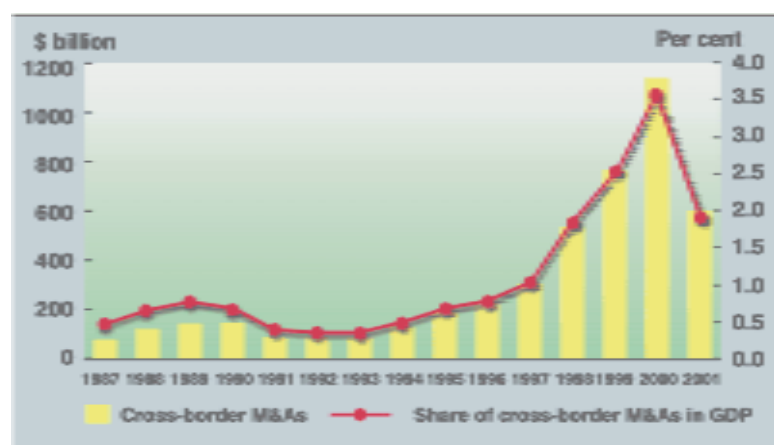
Source: UNCTAD, FDI/TNC and cross-border M&A databases.

Table I.3. Cross-border M&As worth over $1 billion, 1987–2001

Year	Number of deals	Percentage of total	Value (billion dollars)	Percentage of total
1987	14	1.6	30.0	40.3
1988	22	1.5	49.6	42.9
1989	26	1.2	59.5	42.4
1990	33	1.3	60.9	40.4
1991	7	0.2	20.4	25.2
1992	10	0.4	21.3	26.8
1993	14	0.5	23.5	28.3
1994	24	0.7	50.9	40.1
1995	36	0.8	80.4	43.1
1996	43	0.9	94.0	41.4
1997	64	1.3	129.2	42.4
1998	86	1.5	329.7	62.0
1999	114	1.6	522.0	68.1
2000	175	2.2	866.2	75.7
2001	113	1.9	378.1	63.7

Source: UNCTAD, cross-border M&A database.

was more pronounced in comparison to inflows of portfolio investment and bank lending (figure I.7). On a net basis (inflows less outflows), FDI flows were the only positive component of private capital flows to developing countries and economies in transition during 2000-2001. The total of net private capital flows was projected to be a low of $31 billion in 2001 (IMF, 2002, p. 29).[18]

FDI in developing countries has been larger than official inflows for every year since 1993 (figure I.7). It was 10 times larger than bilateral official development assistance (ODA) in 2000 (figure I.8); this contrasts with the latter half of the 1980s, when the two were about equal. It needs to be stressed, however, that, for LDCs, ODA remains of paramount importance. But even for these countries, the ratio of FDI to bilateral ODA rose until 1999, reaching almost one, but it declined in 2000 (figure I.8). Inflows of FDI accounted for 60 per cent of total resource flows to developing countries in 2000, compared to 6 per cent in 1980 and one quarter in 1990.

The ratio of FDI inflows to GDP in both developed and developing countries fell, from 5.1 per cent in 2000 to 2.1 per cent in 2001 in the former, and from 3.7 per cent

Figure I.7. Total resource flows[a] to developing countries,[b] by type of flow, 1990-2001
(Billions of dollars)
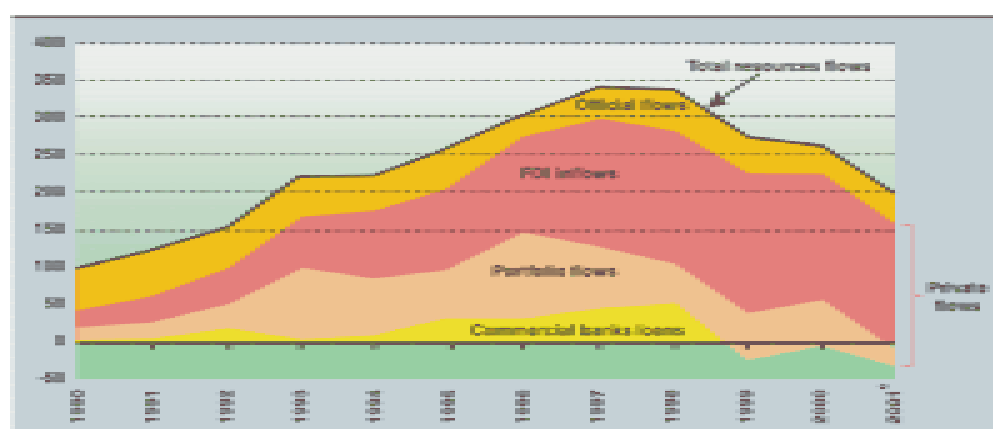
Source: UNCTAD, based on World Bank, 2002a.

[a] Net liability transactions, of original maturity of longer than one year.
[b] The World Bank classifies Central and Eastern European countries as developing countries and excludes some economies considered developing by UNCTAD (Hong Kong, China; Singapore; Taiwan Province of China; Kuwait; Cyprus; Qatar; United Arab Emirates).
[c] Preliminary.

Figure I.8. **The ratio of FDI inflows to bilateral ODA to developing countries, 1980-2000**
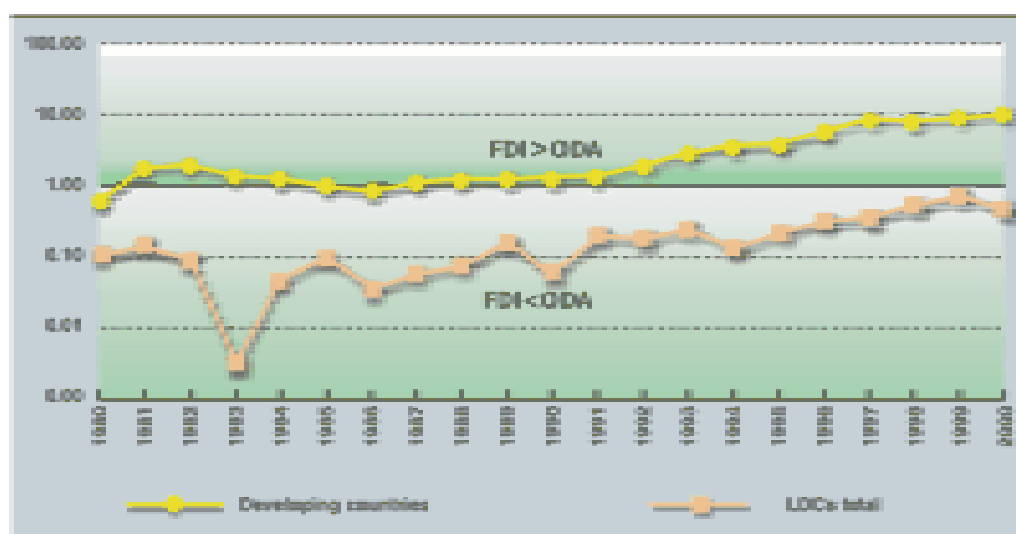
Source: UNCTAD, FDI/TNC database and OECD International Development Statistics online database.
Note: The ratio of one (1) indicates FDI=ODA.

to 3.0 per cent in the latter.[19]   Over the longer term, this ratio had risen from 0.5 per cent in 1980 and 0.9 per cent in 1990 for the world, and from 0.3 per cent in 1980 and 1 per cent in 1990 for developing countries. Most of the steepest declines in FDI inflows and FDI outflows in 2001 occurred in developed countries (table I.4).

What of the *prospects*? Despite the dampening impact of weak demand in the largest economies, the medium-term (three-year) prospects for FDI are promising. Major TNCs, according to the UNCTAD et al. survey, plan to continue their international expansion (UNCTAD, 2001a). This will focus on

production as well as distribution functions. The preferred mode of expansion will continue to be cross-border M&As in developed countries and greenfield investment in developing countries. More specifically, the survey suggests that the preferred destinations will be the United States among developed countries as a whole; Germany, the United Kingdom and France in Europe; China in Asia; Brazil in Latin America; Poland in Eastern Europe; and South Africa in Africa (table I.5). A survey by the Japan Bank for International Cooperation (IBIC) in July/August 2001 yielded similar results. As many as 72 per cent of the Japanese TNCs surveyed said that they would strengthen and expand

Table I.4. **Top 10 winners and losers in FDI flows in 2001**

	FDI inflows (Billions of dollars)				FDI outflows (Billions of dollars)			
	Winner		Loser		Winner		Loser	
	Economy	Increases in absolute value	Economy	Decreases in absolute value	Economy	Increases in absolute value	Economy	Decreases in absolute value
1	Mexico	10.0	Belgium and Luxembourg	-194.6	Italy	9.2	United Kingdom	-214.5
2	France	9.7	United States	-176.5	Japan	6.5	Belgium and Luxembourg	-174.7
3	China	6.1	Germany	-163.3	Australia	6.1	France	-92.7
4	South Africa	5.8	United Kingdom	-62.8	Singapore	5.2	United States	-51.0
5	Singapore	3.2	Canada	-39.2	Mexico	2.7	Hong Kong, China	-50.4
6	Morocco	2.5	Hong Kong, China	-39.1	Panama	1.8	Sweden	-33.4
7	Turkey	2.3	Denmark	-25.3	Ireland	1.4	Netherlands	-27.3
8	Saudi Arabia	1.9	Spain	-15.7	Cayman Islands	1.0	Spain	-26.9
9	Chile	1.8	Ireland	-14.3	China	0.9	Switzerland	-26.3
10	Italy	1.5	Sweden	-10.6	Kuwait	0.6	Finland	-16.8

Source: UNCTAD, FDI/TNC database.

Table I.5. Most favoured host economies as a priority location in 2002-2005, by region, as a percentage of total responses by TNCs

(Percentage)

Developed countries		Developing Asia		Latin America		Central and Eastern Europe		Africa and West Asia	
United States	27	China	27	Brazil	31	Poland	33	South Africa	17
Germany	16	Indonesia	10	Mexico	20	Hungary	20	Egypt	12
United Kingdom	12	Thailand	10	Argentina	15	Czech Republic	18	Turkey	8
France	10	Malaysia	9	Chile	10	Russia	11	Morocco	8
Italy	6	India	9	Colombia	5	Romania	4	Nigeria	6
Japan	5	Korea, Republic of	7	Peru	4	Bulgaria	4	Saudi Arabia	6
Spain	5	Taiwan Province of China	7	Bolivia	3	Ukraine	2	United Arab Emirates	5
Sweden	3	Viet Nam	5	Venezuela	3	Other	7	Israel	2
Canada	3	Hong Kong, China	4	Other	8			Angola	2
Ireland	2	Philippines	4					Other	4
Other	13	Singapore	4						
		Other	4						

Source: UNCTAD, 2001a.

their foreign operations, a jump of 55 per cent compared to the previous year (JBIC, 2002; see also section on Japan).[20] A MIGA 2001 survey shows similar trends: nearly 80 per cent of the respondents plan to expand FDI in both developed and developing countries in the next three years (MIGA, 2002).

The potential for FDI remains large in many developing countries. Many have just started to allow FDI in utilities and other service industries, and should see fresh inflows where conditions are conducive. Others that have already attracted such FDI may get sequential investments after the initial privatization. As the stock of FDI grows, the potential for reinvesting earnings rises, especially where profits are healthy. Though developing countries cannot de-link themselves entirely from global economic fluctuations, they retain considerable drawing power on their own.

For TNCs in tradable goods and services in particular, the issue is less whether to produce at home or abroad and more *where* to locate their production facilities (and other functions) for maximum efficiency. In an increasingly globalized world, the "F" in FDI is fading. This is particularly so for companies that have accumulated the experience and capabilities needed to operate internationally. Such firms increasingly regard the globe as a borderless whole, and make their location decisions mainly on economic and strategic grounds rather than nationality. Thus, from the supply side, the potential for FDI is limited only (or largely) by the potential for investment in general. It is up to the demand side to ensure that the conditions and policies investors need for efficient operation are in place.

B. Developments in international production

There are now some 65,000 TNCs (firms that control assets abroad) engaged in international production, with about 850,000 affiliates abroad (annex table A.I.3). The global FDI stock reached nearly $7 trillion in 2001. Value added by TNCs is estimated at $3.5 trillion and total sales at $18.5 trillion, compared to world exports at $7.4 trillion (table I.1). Foreign affiliates accounted for an estimated 11 per cent of world GDP in 2001 compared to 7 per cent in 1990. This section looks at various measures of TNC activity: investment, employment, sales, value added, profits and innovative activities. (The role of TNCs in exports is examined separately in Part Two.)

1. The significance of foreign affiliates in their host economies

The value of FDI flows is an obvious measure of the role of TNCs. It is, however, difficult to assess that role correctly from FDI flows alone: FDI figures may not show the true value of *investments* by TNCs, where affiliates raise funds in domestic or international markets. For example, affiliates of Japanese TNCs raised $3 billion from local banks alone in 1998 (Japan, METI, 2001a, p. 160), equivalent to 13 per cent of Japanese FDI outflows. They also raised funds through bonds and stocks and via loans from local partners. Data for several large countries such as Japan, Germany and the United States show that the value of FDI

inward stock[21] is considerably lower than that of the total *assets* of foreign affiliates. The ratio of FDI inward stock to assets of foreign affiliates is only one quarter to one fifth in these economies (annex table A.I.4).

In many host developing countries, the two magnitudes also differ but the differences are smaller, suggesting that affiliates rely more on parent firms. There are, however, exceptions. For example, Botswana, with a high domestic savings rate, has a ratio of assets to FDI resembling that of developed host countries (UNCTAD, forthcoming (a) and box I.7). In the aggregate, world assets of foreign affiliates are estimated to be three to four times higher than world FDI stock (table I.1). On the other hand, FDI may exceed the value of assets in host countries when it is used for operating costs or to repay debt by foreign affiliates, or when it is invested in financial assets.

And what of *employment*? While assets held by foreign affiliates are a reasonable indicator of production capacity, they may not be a good measure of their employment capacity. The number of employees in foreign affiliates worldwide is estimated at 54 million in 2001 (table I.1), and this has grown dramatically in developing countries. (For earlier figures, see *WIR94*.) While the number may not be large in relation to total employment in the developing world, they are significant in countries that have attracted sustained FDI (for Asia, see table I.6). Foreign affiliates are major employers in Singapore, accounting for more than half of total employment in manufacturing.[22] Hong Kong (China), Malaysia and Sri Lanka have seen increasing shares of affiliates in total

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Box I.7. Financing international production locally

In the second half of the 1990s, "the biggest capital project ever seen in Botswana"[a] took place. It involved a doubling of the production capacity of the largest diamond mine at Orapa, owned and operated by a foreign affiliate, Debswana Diamond Company, a 50-50 per cent joint venture between De Beers, a leading international diamond group, and the Government. The project involved a total investment of some $320 million. Yet, Botswana's *total* FDI inflows (involving FDI by *all* foreign affiliates) during its realization were only $290 million during 1997-2000. This apparent paradox arises from the methodology used to report FDI inflows.

FDI inflows are a balance-of-payments measure, comprising reinvested earnings of foreign affiliates and the financing of these affiliates by *parent companies* in the form of loans or equity capital. They do not include financing through loans by affiliates from local or international capital markets and co-financing by local shareholders.

The Orapa expansion was financed largely by non-FDI means. Nearly one-fifth of the project was financed by a cash injection by the foreign shareholder, through a loan raised by the De Beers Group from local banks. The balance was provided by using reinvested profits, which would otherwise have been distributed to the owners. Only the foreign shareholder's part in this re- investment – that of De Beers – qualifies as FDI, and has been recorded as increased FDI inflows into Botswana. On the other hand, the financing of the part of the project by the local shareholder, the Government, is not recorded as FDI. Assuming that both shareholders contributed reinvested earnings in equal proportions, only 40 per cent of the total value of the project was financed through FDI. In addition, given that this 40 per cent represented profits earned in Botswana and reinvested there by the foreign partner, the project was undertaken without an infusion of fresh capital from abroad. Reinvested earnings are recorded in the balance of payments as FDI inflows, because the assumption is that the foreign parent firm could have repatriated the profits, but instead decided to reinvest them.[b]

This points to limitations of FDI inflows as a measure of the growth of international production because, regardless of the sources of funds, that segment of Botswana's economy that is part of international production has grown more than is indicated by FDI figures. These limitations come particularly into play in developing countries like Botswana that have no shortage of local savings, a liberalized capital account and high creditworthiness – and that also have large foreign affiliates participating in joint ventures.

Source: UNCTAD, forthcoming a.

[a]   "Debswana gearing up and up" *Sunday Times. Business Times*, http://www.btimes.co.za/97/0824/world/ world2.htm; "Botswana lends De Beers R455m", *Daily Mail and Guardian, Business,* 8 July 1999, http://www.mg.co.za/ mg/ za/archive/99jul/08julpm-business.html.
[b]   For more on this, see *WIR99*, pp. 160-161.

employment over the past decade. Latin America is different. Reflecting relatively low FDI inflows during the 1980s and the early 1990s, the share of employment in foreign affiliates declined in Brazil and Mexico during this period (table I.6), though it is not clear whether this trend has continued as no data are available for the subsequent period.

Other popular measures of foreign activity are *sales* and *value added*.[23] Data on these show similar trends (tables I.7-I.8. According to data on manufacturing sales, the developing countries with the highest shares of foreign affiliates are Singapore and Malaysia. The growth of sales by foreign affiliates in China is impressive (table I.7). These countries also have high shares of foreign affiliates in value added. As far as affiliates in developed countries are concerned, Ireland, the Netherlands and Sweden score high.

Foreign affiliates tend to have higher *labour productivity* (as measured by value added per employee) than domestic firms.[24] The ratio is two or higher in Ireland and the Netherlands among developed economies, and in China, Singapore and Taiwan Province of China among developing ones (annex table A.I.5). In the late 1990s, employees of foreign affiliates in manufacturing generated value added ranging from $7,000 (China) to $120,000 (Singapore) in developing countries, and from $60,000 - $70,000 (France, Finland, Japan Norway and Sweden) to $270,000 (Ireland) in developed countries. In France and Sweden, labour productivity in manufacturing was lower in foreign affiliates than in local firms.

Profits, or *net income* of foreign affiliates, is another useful measure of the role of TNCs in host economies. Countries with a higher share of foreign profits or net income are not necessarily the same as

Table I.6. Significance of employment[a] in foreign affiliates in the manufacturing sector in selected host economies, 1985-1999
(Percentage)

Economy	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Developed countries:																
Austria	32.0	33.5	35.3	35.1	37.7	39.7	36.0	39.9	37.1	41.9	28.9	29.6	28.9	27.9	27.6	..
Finland	..	..	..	..	..	..	..	..	..	8.8	9.0	11.8	10.7	12.8	..	..
France	..	..	..	..	..	..	..	..	..	..	..	..	22.7	..	..	..
Germany	..	..	..	..	..	..	14.2	15.6	16.3	16.5	..	..	..	..	..	..
Ireland	..	..	..	..	34.5	34.7	34.5	34.3	34.9	35.8	35.6	36.3	36.7	36.8	..	..
Italy	..	..	11.8	..	..	..	..	..	..	..	..	..	14.0	..	..	..
Japan	..	..	..	1.2	1.3	1.3	1.4	1.4	1.3	1.6	1.6	1.6	1.7	1.8	..	..
Netherlands	..	..	..	..	..	..	..	..	..	..	24.7	24.1	..	..	..	..
Norway	..	..	..	..	..	..	..	6.3	..	..	..	13.2	..	..	..	..
Portugal	..	..	..	..	..	..	..	..	..	..	..	7.3	7.9	7.9	..	..
Sweden	..	..	..	..	..	..	..	..	18.5	18.3	22.6	23.7	24.3	26.8	31.4	..
United Kingdom	..	..	..	..	..	..	..	..	15.9	15.8	14.2	19.5	18.0	..	..	..
United States	8.9	8.8	9.3	10.8	12.7	13.3	14.0	13.9	13.7	14.0	13.5	13.6	13.5	15.1	15.8	..
Developing economies and countries in Central and Eastern Europe:																
Brazil	..	..	24.3	..	..	..	..	..	..	..	13.4	..	..	..	..	..
Hong Kong, China	10.2	11.5	11.7	13.1	13.0	12.9	13.4	13.2	14.2	16.9	19.3	20.3	22.5	..	..	..
Indonesia	..	..	..	..	..	..	..	3.3	..	..	..	4.7	..	..	..	..
Madagascar	..	..	..	..	..	..	..	..	..	..	..	..	..	88.4	..	..
Malaysia	29.8	30.5	33.6	36.4	39.7	43.2	45.6	45.9	43.2	43.7	38.5	..	..	..	..	..
Mexico	42.7	..	..	..	..	..	..	..	17.9	..	..	..	..	..	..	..
Nepal	..	..	..	..	..	..	..	..	..	..	..	..	..	..	25.0	..
Singapore	55.0	56.4	58.0	59.5	59.8	59.7	58.1	56.8	55.1	55.1	54.8	53.4	52.3	49.9	48.5	..
Slovenia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	13.1	14.9
Solomon Islands	..	..	..	..	..	..	..	..	..	..	5.1	..	..	..	..	..
Sri Lanka	19.2	19.0	24.2	25.7	26.9	26.8	32.6	41.8	28.2	30.9	34.3	..	..	..	..	..
Taiwan Province of China	10.7	10.1	9.2	9.6	11.7	12.8	11.9	9.9	10.6	..	..	..	..	..	..	..
Turkey	..	1.5	..	..	..	3.2	..	..	..	..	..	..	..	..	..	..
Viet Nam	..	..	..	..	..	..	..	..	..	..	..	22.6	..	..	..	..

Sources: UNCTAD, based on UNCTAD FDI/TNC database (employment of foreign affiliates) and UNIDO Industrial Statistics Database (employment of all firms).

[a] Defined as the number of employees of foreign affiliates divided by the number of employees of all firms in the manufacturing sector.

Notes: Data for the Netherlands, Sweden and the United Kingdom refer to majority-owned foreign affiliates only. Data for foreign affiliates for Sri Lanka are approval data.

Table I.7. Significance of sales[a] of foreign affiliates in manufacturing in selected host economies, 1985-2000

(Percentage)

Economy	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Developed countries:																
Austria	..	..	..	..	..	..	..	..	..	..	25.4	25.2	26.3	26.2	25.8	..
Finland	..	..	..	..	..	..	..	..	..	9.1	8.6	13.4	11.5	12.8	..	..
Germany	..	..	..	..	..	..	25.3	25.5	26.1	26.1	..	..	..	..	..	..
Ireland	50.2	50.0	52.0	55.1	56.2	54.0	53.9	55.5	58.3	61.6	65.2	66.4	69.2	74.9	..	..
Italy	17.7	..	20.3	..	21.9	..	26.4	..	24.9	..	26.7	..	28.3	..	..	..
Japan	..	..	..	3.0	3.1	3.3	3.1	3.1	2.9	3.8	3.9	3.7	4.0	3.9	..	..
Netherlands	38.6	..	..	..	..	..	..	..	..	46.5	..	..	..	..	..	..
Portugal	..	..	..	..	..	..	..	..	..	..	..	16.1	16.3	16.3	..	..
Sweden	..	..	..	..	..	..	..	..	..	..	..	..	..	28.8	39.5	..
United Kingdom	..	..	..	..	..	..	..	..	25.8	25.8	25.1	35.0	34.1	..	..	..
United States	10.0	9.9	11.0	12.4	15.0	16.4	16.7	16.5	17.0	17.6	17.5	17.0	16.4	18.1	18.0	..
Developing economies:																
China	..	..	..	..	..	2.3	5.3	7.1	9.1	11.3	14.3	15.1	18.6	24.3	27.7	31.3
Hong Kong, China	20.1	19.3	19.1	24.3	20.2	22.6	26.0	27.0	30.8	35.7	43.5	44.6	44.8	..	..	..
India	..	..	6.4	6.4	5.8	5.4	5.5	..	6.1	5.5	3.1	..	..	..	..	..
Malaysia	34.0	36.1	37.8	38.0	40.8	44.1	45.4	47.6	48.6	52.6	50.1	..	..	..	..	..
Singapore	72.4	73.5	75.3	74.7	76.2	76.9	75.4	74.7	74.8	75.1	76.6	75.9	75.8	76.0	81.1	..
Taiwan Province of China	12.7	12.7	13.7	13.5	15.0	17.8	19.2	20.9	18.7	21.5	..	..	..	..	..	..
Turkey	..	6.8	..	..	..	2.7	..	..	..	..	..	..	..	..	..	..

Sources: UNCTAD, based on UNCTAD FDI/TNC database (employment of foreign affiliates) and UNIDO Industrial Statistics Database (employment of all firms).

[a]   Defined as sales of foreign affiliates divided by sales of all firms in the manufacturing sector.

Table I.8. Significance of value added[a] of foreign affiliates in selected host economies, 1985-1999

(Percentage)

Economy	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Developed countries:																
Finland	..	..	..	..	..	..	..	..	..	3.4	4.3	5.3	5.7	6.1	9.5	..
France												4.0	4.2	4.1		..
Ireland	19.6	29.6	20.0	22.5	23.8	21.3	22.3	23.1	24.4	26.8	30.2	30.6	31.8	35.8	40.2	..
Japan	..	..	..	..	..	..	..	..	..	1.1	0.6	0.6	0.6	0.5	..	..
Netherlands	..	..	..	..	..	..	..	..	..	..	7.5	10.2	..	..	..	..
Norway	..	..	..	..	..	..	..	0.9	1.0	1.2	2.3	2.2				..
Portugal	..	..	..	..	..	..	..	..				7.1	6.0	6.4	6.2	..
Sweden	..	..	..	..	..	..	..	..	..	..	..	..	..	9.3	11.5	..
United Kingdom	..	..	..	..	..	..	..	..	5.5	6.0	5.9	6.6	6.0			..
United States	..	..	..	..	..	..	..	4.2	4.3	4.4	4.4	4.6	4.7	4.8	4.9	..
Developing countries and countries in Central and Eastern Europe:																
China	..	..	..	..	..	..	..	..	..	..	4.4	4.2	4.8	..	..	..
Czech Republic	..	..	..	..	..	..	..	..	..	..	..	..	..	..	10.2	13.7
Estonia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8.4	..
Hungary	..	..	..	..	..	..	..	..	..	..	..	..	..	..	24.0	24.2
India	1.1	..	1.5	1.4	1.4	1.3	1.3	..	1.4	1.3	1.0	..	..	..	..	..
Malaysia	15.8	15.0	15.5	15.0	16.1	17.5	18.6	20.1	20.6	23.1	23.8	..	..	..	..	..
Slovenia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3.5	5.4
Viet Nam	..	..	..	..	..	..	..	..	..	..	11.3	11.6	12.5	..	..	..

Sources: UNCTAD, based on FDI/TNC database (value added for foreign affiliates) and UNCTAD secretatiat (GDP).

[a]   Defined as value added of foreign affiliates divided by GDP.

Notes: Data on value added for France, Ireland, Netherlands, Norway and the United Kingdom represent data for majority-owned foreign affiliates.

those with a higher share of foreign value added. There is, for example, an interesting contrast between Japan and the United States in this respect (figure I.9). Although foreign affiliates play an insignificant role in Japanese production, they play a more significant one in Japanese profits; the profitability (profits divided by sales) of foreign affiliates in Japan is twice that of domestic firms (Japan, METI, 2001b). On the other hand, foreign affiliates in the United States do not earn as much as domestic firms and account for

Figure I.9. Profitability[a] of foreign affiliates operating in Japan and the United States, 1989-1999

(Percentage)
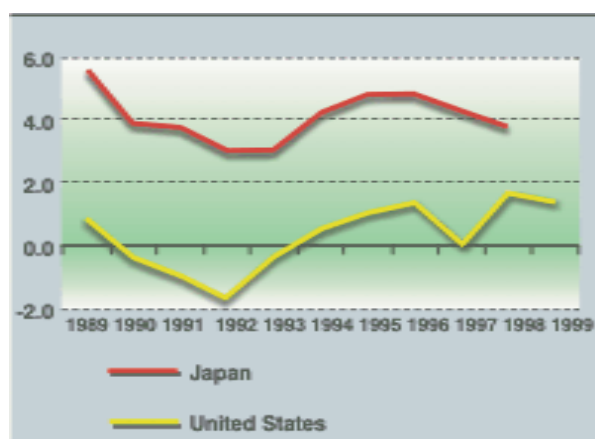
Source: UNCTAD, FDI/TNC database.

[a] Defined as profits before taxes divided by sales.

less than 1 per cent of total profits. The profit share is considerably lower than any other measure of the significance of foreign affiliates in the United States. In developing countries such as Mexico and Singapore, foreign affiliates account for a fairly large share – more than one-third – of total profits in manufacturing (table I.9).

In general, the share of foreign affiliates in host economies is lower in terms of profits than in terms of other variables. As the difference between value added and profits is mainly wages and salaries, this suggests that employees of foreign affiliates are better paid than those of domestic firms. This does, indeed, seem to be the case (*WIR94*). It is, however, also possible that, especially in very competitive markets with low country-risk (e.g. in the United States), TNCs are willing to settle for lower profit margins. Transfer pricing may also play a role. High or low profits of foreign affiliates affect the volume of FDI flows, as part of them is often used for reinvestment. However, there seems to be no strong relationship between reinvested earnings and the level of net income of foreign affiliates (figure I.10). Reinvested earnings and profits of foreign affiliates vary from year to year.

Another important aspect of international production is *innovative acti*vity by foreign affiliates. The presence of research and development (R&D) can signify that affiliates are engaging in complex and high-value functions. R&D can contribute to capacity-building in host countries and provide spillover benefits to local researchers. According to the scattered data available, the share of foreign affiliates' R&D in the total R&D of host countries is lower than their share in production. However, there are wide variations: foreign affiliates accounted for 2 per cent of R&D in Japan and 66 per cent in Ireland in the late 1990s (table I.10),

Table I.9. Significance of profits[a] of foreign affiliates in manufacturing in selected host economies, 1983-1999

(Percentage)

Economy	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Developed countries:																
Canada	..	..	..	14.4	..	..	..	..	8.8	..	..	..	..	..	..	..
Finland	..	..	..	..	..	..	..	..	..	1.2	2.5	3.5	5.7	4.4	..	..
France	..	..	13.2	..	..	..	..	12.7	..	..	..	..	..	..	..	..
Japan	..	..	..	0.9	0.8	0.5	0.5	0.2	0.4	0.6	0.7	0.7	0.7	0.5	..	..
Netherlands	..	..	..	..	..	..	..	..	..	..	29.7	33.9	..	..	..	..
Norway	..	..	..	..	..	..	..	7.7	..	..	..	..	..	..	..	..
Sweden	4.2	..	..	..	..	..	..	..	..	11.2	..	..	..	..	..	..
United Kingdom	13.1	..	..	..	..	..	..	14.7	..	..	..	..	..	..	..	..
United States	..	..	..	..	..	..	..	0.4	0.6	1.4	1.4	1.6	1.7	1.9	1.5	..
Developing economies and countries in Central and Eastern Europe:																
India	..	..	..	..	..	..	..	..	2.9	2.7	2.4	..	..	..	..	..
Malaysia	9.1	11.1	12.2	14.4	13.6	13.7	12.9	12.0	10.7	19.0	14.2	..	..	..	..	..
Mexico	12.7	..	..	..	..	..	..	..	34.3	..	..	..	..	..	..	..
Singapore	22.3	37.6	41.1	39.7	40.2	38.4	37.3	30.6	36.6	37.5	42.7	42.7	40.6	39.5	56.8	..
Slovenia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	41.3	32.7
Taiwan Province of China	3.3	5.0	5.5	7.4	7.6	6.2	6.6	8.4	7.0	9.8	..	..	..	..	..	..

Sources: UNCTAD, based on UNCTAD's FDI/TNC database (profits of foreign affiliates) and UNIDO Industrial Statistics Database (profits of all firms).

[a] Defined as profits of foreign affiliates divided by profits of all firms in the manufacturing sector.

Figure I.10. **Comparison of reinvested earnings of FDI inflows and profits of foreign affiliates in the United States, 1983-1999**
(Billions of dollars)
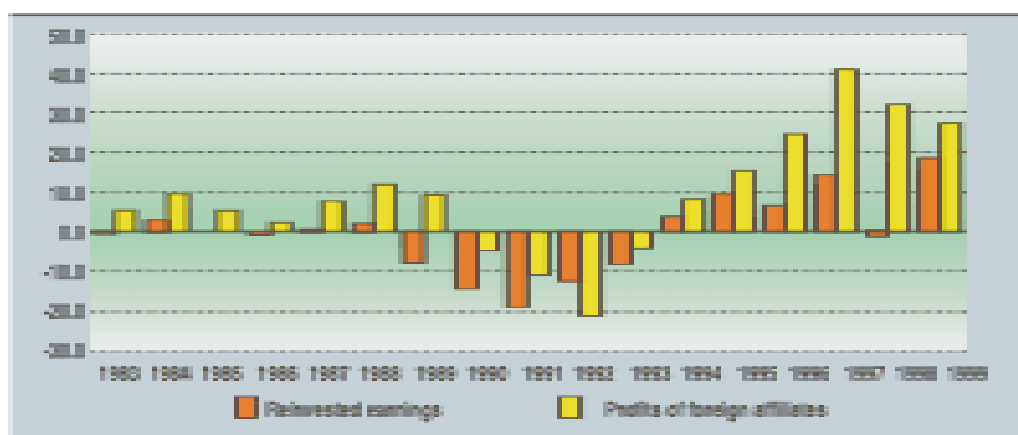
Source: UNCTAD, FDI/TNC database.

Table I.10. **Significance of R&D expenditures of foreign affiliates in selected host economies, 1986-1999**
(Percentage)

Economy	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Developed countries:														
Canada	..	..	..	..	..	..	..	31.8	29.7	29.7	31.7	34.6	34.2	..
Finland	..	..	..	..	..	..	..	..	..	..	..	13.3	13.2	14.9
France	..	..	..	..	..	..	..	..	14.2	17.1	16.7	..	16.4	..
Greece	..	..	..	..	..	..	..	6.5	..	3.8	3.4	3.6	..	..
Ireland	..	..	..	..	..	..	..	71.0	..	64.6	..	65.6	..	..
Japan	..	..	..	..	..	..	..	0.9	1.5	1.4	0.9	1.3	1.7	..
Netherlands	..	..	..	..	..	..	..	..	..	..	..	20.6	21.8	..
Portugal	..	..	..	..	..	..	..	..	..	..	..	..	..	18.0
Spain	..	..	..	..	..	..	..	..	..	26.8	..	35.7	..	32.8
Sweden	..	..	..	..	..	..	..	14.7	10.4	18.4	18.7	15.9	17.5	..
United Kingdom	..	..	..	..	..	..	..	..	28.0	29.2	30.1	32.5	30.1	31.2
United States	..	..	..	..	..	..	..	12.1	13.0	13.3	12.4	12.2	14.9	..
Developing economies and countries in Central and Eastern Europe:														
Czech Republic	..	..	..	..	..	..	..	..	..	..	..	1.3	2.7	6.4
Hungary	..	..	..	..	..	..	..	..	22.6	21.8	44.4	65.3	78.5	..
India	..	0.5	0.4	0.3	0.4	0.4	..	2.0	1.6	..	..	..	..	..
Taiwan Province of China	28.0	26.2	26.1	23.1	29.9	52.9	33.1	24.5	65.3	..	..	..	..	..
Turkey	..	..	..	..	..	..	..	16.3	29.4	32.8	21.7	18.6	10.1	..

Sources: UNCTAD, based on OECD 2001a, table 59, UNCTAD's FDI/TNC database and World Bank, 2001b.
Notes: Data refer to R&D expenditures of foreign affiliates as a percentage of R&D expenditures of all enterprises.

with other developed countries ranging in between. In developing and transition economies, affiliates in Hungary and Taiwan Province of China also accounted for a high share of R&D – over 50 per cent. However, most other developing countries were not successful in attracting R&D by TNCs (*WIR01*).

The share of R&D conducted abroad by parent firms varies widely by home country. In the United States, 87 per cent of the R&D by TNCs was conducted at home in 1998 (United States, Department of Commerce, 2001); in Japan, the figure was 97 per cent

in 1995 (Japan, MITI, 1998). These shares can be compared with the one-third and one-quarter of total sales generated by the foreign affiliates of United States and Japanese TNCs. However, these trends are not representative of other developed countries (*WIR99*). A broader coverage of data is available from patents taken out internationally (in the United States) by parent companies and affiliates, which reflects better their pattern of R&D spending.[25] The patent data show that, in smaller countries (e.g. Belgium, the Netherlands and Switzerland), the ratio of overseas to domestic patenting was over half in the early

1990s. Even the United Kingdom, a larger but highly internationalized economy, had a ratio of 56 per cent, Germany 21 per cent and Sweden 42 per cent. Thus, apart from Japan and the United States, TNC R&D is quite internationalized, although most of it continues to be undertaken in other industrial countries.

2. The Transnationality Index of host countries

This index was developed by UNCTAD to compare the transnationality of countries in which TNCs operate (*WIR99*). It attempts to measure the transnationalization of economic activity of host countries in real terms, taking into consideration both the production potential created through inward FDI and the results of this investment. The transnationality index for a country is based on two FDI variables and two variables related to foreign firms' operations in a host country:

- FDI inflows as a percentage of gross fixed capital formation;
- FDI inward stock as a percentage of GDP;
- value added by foreign affiliates as a percentage of GDP; and
- employment by foreign affiliates as a percentage of total employment.

The simple average of these four shares results in the Transnationality Index of a host country (annex table A.I.6). The first two shares indicate the importance of inward FDI flows and stocks in an economy. A larger capital base – corresponding to larger FDI – indicates the potential to produce more. The last two shares capture the significance of foreign affiliates. The two sets of variables are correlated: high FDI shares are normally reflected in more activities by foreign affiliates in a country. The average value of the first two variables of the 74 countries for which it is calculated was 24.0 in 1999, higher than the average of the last two which was 9.8 (annex table A.I.6). The average Transantionality Index of these 74 countries was 16.9.

The world's most transnational host economy is Hong Kong (China), followed by Belgium and Luxembourg, Trinidad and Tobago and Nigeria. Regionally most host countries with a high Transnationality Index are in Latin America (figure I.11). In general,

the average index, by group of economies, is higher for developing (19.5 in 1999) than for developed countries (18.0) and for CEE (11.2). The low index number for CEE reflects the fact that this region opened its markets to foreign investors only in the 1990s.

The ranking of some economies based on the Transnationality Index is significantly different from their ranking based on the FDI variables alone. Denmark (ranking 18th among 74 countries by the Transnationality Index as opposed to 38th by the FDI shares only), Greece (ranking 35th and 59th, respectively), Honduras (ranking 13th and 42nd), Spain (ranking 33rd and 48th) and Taiwan Province of China (ranking 60th and 69th) are typical examples. This suggests that foreign affiliates in these countries use more resources than those provided by parent firms and/or generate more employment and value added per unit of resources than do foreign affiliates in other host countries.

Notes

[1] Starting with this year's *Report*, some changes are made to the country composition in each group of economies. CEE now includes all countries of former Yugoslavia; South Africa is now included in Africa; and Malta is grouped with developed countries. For details, see the definitions and sources in Annex B.

[2] All FDI figures in *WIR02* and previous *WIRs* are in current prices. In constant prices (using the world import prices of 1995 as the base year), world inflows and outflows would be $872 billion and $736 billion, respectively.

[3] FDI inflows declined in 1976 (by $6 billion or 24 per cent), 1982 (by $10 billion or 15 per cent), 1983 (by $8 billion or 13 per cent), 1985 (by $2 billion or 4 per cent) and 1991 (by $43 billion or 21 per cent). Similarly, outflows declined in 1974 (by $2 billion or 6 per cent), 1980 (by $9 billion or 15 per cent), 1982 (by $25 billion or 47 per cent) and 1991 (by $35 billion or 15 per cent).

[4] FDI outflows in the first four months of 2002 were: $0.8 billion for Germany ($9.3 billion during the same period of 2001), $14.7 billion for France ($24.4 billion), $15.1 billion for Italy ($5.2 billion), $14.7 billion for Japan ($14.4 billion), $20 billion for the United Kingdom (27.4 billion during the first quarter only) and $21.3 billion for the United States ($22.9 billion during the first quarter only).

[5] FDI inflows in the first quarter of 2002 were $6.7 billion for Brazil ($6.8 billion during the same period of 2001), $2.8 billion for Mexico ($3.0 billion), $6.7 billion for the United Kingdom ($24.0 billion) and $24.6 billion for the United States ($42.6 billion), $24.6 billion for China

Figure I.11. Transnationality index[a] of host economies,[b] 1999
(Percentage)

[a]   Average of the four shares : FDI inflows as a percentage of gross fixed capital formation for the past three years, 1997-1999; FDI inward stocks as a percentage of GDP in 1999; value added of foreign affiliates as a percentage of GDP in 1999; and employment of foreign affiliates as a percentage of total employment in 1999.

[b]   Only the economies for which data for all of these four shares are available were selected. Data on value added are available only for Finland, France (1998), Italy (1997), Japan (1998), Netherlands (1996), Norway, Portugal, Sweden, United Kingdom (1997), United States, China (1997), India (1995), Malaysia (1995), Singapore and Taiwan Province of China (1994) . For other economies, data were estimated by applying the ratio of value added of United States affiliates to United States outward FDI stock to total inward FDI stock of the country. Data on employment are available only for Austria, Denmark (1996), Finland, France (1998), Germany, Ireland, Italy (1997), Japan (1998), Netherlands (1996), Norway (1996), Portugal (1996), Sweden, United Kingdom (1997), United States, Hong Kong (China) (1997), Indonesia (1996) and Singapore. For other countries, data were estimated by applying the ratio of employment of Finnish, German, Japanese, Swedish, Swiss and United States affiliates to Finnish, German, Japanese, Swedish, Swiss and United States outward FDI stock to total inward FDI stock of the economy. Data for France, Ireland, Netherlands, Norway, Sweden and United Kingdom refer to majority-owned foreign affiliates only.

For Albania, Belarus, Bosnia and Herzegovina, Croatia, Estonia, Lithuania, the Republic of Moldova, Poland, Ukraine and Yugoslavia, the employment impact of foreign-owned affiliates was estimated on the basis of their per capita inward FDI stocks. For the benchmark data, see annex table A.I.5. With the exception of the Czech Republic, Hungary and Slovenia, the value added of foreign-owned firms was estimated on the basis of the per capita inward FDI stocks. For the benchmark data, see annex table A.I.3.

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($20.7 billion during the first six months), $15.3 billion for Germany (-$0.3 billion for the first four months), $9.2 billion for France ($12.6 billion for the first four months) and $6.4 billion for Japan ($11.5 billion for the first four months).

6. The correlation between the FDI growth rate and the GDP growth rate was 0.3 during 1971-2000. Similarly, a simple regression of FDI inflows against GDP during the same period is as follows:

FDI inflows = -190.9 + 0.0251(GDP).
$R^2 = 0.75$, adjusted $R^2 = 0.55$,
t-value of GDP coefficients = 6.0.

7. In earlier years as well, when the growth rates of the world economy were low, the share of developing countries in world flows rose: from an average of 22 per cent during 1976-1980 to 39 per cent during 1981-1982; and from 18 per cent during 1986-1990 to 31 per cent during 1991-1992.

8. This is what a number of Asian countries did in partial response to the Asian financial crisis (see *WIR98*).

9. For a detailed account on trends in cross-border M&As and their impact on economic development, see *WIR00*.

10. For example, in the transport, storage and communications industries, the value of cross-border M&As declined from almost $366 billion in 2000 to just over $121 billion in 2001; and in the motor vehicle and other transport equipment industries, from about $25 billion in 2000 to about $5.7 billion in 2001 (annex table B.9).

11. Data from the UNCTAD cross-border M&A database. This figure represents deals concluded through the exchange of shares.

12. The six major stock exchanges are the New York Stock Exchange, the NASDAQ, the Tokyo Stock Exchange and the stock exchanges of Frankfurt, London and Paris. *Nihon Keizai Shimbun*, 2 October 2001.

13. For example, Japanese TNCs financed some 30 per cent of capital expenditures in their affiliates in the United States and Europe with funds raised through stocks and bonds in 1998 (Japan, METI, 2001a, pp. 166-172).

14. The data cover completed cross-border M&A deals involving more than 10 per cent equity only. For details on the nature of the data, see "Definitions and Sources" in annex B.

15. In comparison, the ratio of FDI to GDP worldwide was 2.3 per cent, 4.8 per cent and 2.4 per cent, respectively in 2001, 2000 and 1998.

16. "M&A volume down almost a half in 2001", *Financial Times*, 10 December 2001.

17. Some prominent examples were the $200-billion acquisition of Mannesmann (Germany) by VodafoneAirTouch (United Kingdom) in 2000 and the $60-billion deal of AirTouch Communications (United States) and Vodafone

Group (United Kingdom) in 1999. By comparison, in 2001, the largest cross-border deal (the acquisition of VoiceStream (United States) by Deutsche Telekom AG (Germany)) was worth "only" $29 billion (annex table A.I.2).

18. Flows are netted out. The other components – net portfolio investment flows and other net private capital flows such as bank lending – were projected to be negative in 2001, -$30 billion and -$114 billion, respectively (IMF, 2002).

19. Figures for FDI flows to developing countries are strongly affected by the geographical coverage of estimates made by different sources. For example, the Institute of International Finance estimates $132.5 billion in 2000, $148.8 billion in 2001 and $117.1 billion in 2002 in direct equity investments for 29 emerging countries, which include seven countries in CEE (see IIF, "Capital flows to emerging market economies", 30 January 2002). In comparison, UNCTAD's estimate for developing countries is based on data on FDI covering all of Africa, Asia (except Japan and Israel), Latin America and the Caribbean, and Oceania (except Australia and New Zealand), while that for CEE is based on all economies of that region.

20. The survey covered 501 respondent manufacturing firms.

21. Defined as the total value of equity and reserves in foreign affiliates held by parent companies, plus loans by their parent companies to the affiliates. (For details, see "Definitions and Sources" in annex B.)

22. Although the share of employment of foreign affiliates in total employment is higher in Sri Lanka than in Singapore, Sri Lanka's data on affiliates' employment are overestimated as they are figures for cumulative (potential) employment in approved FDI projects, some of which have not been realized.

23. While sales data are more widely available than value-added data, appropriate sales data do not exist to measure the size of foreign affiliates' activity in the services sector (e.g. wholesale trade, financial institutions). On the other hand, value-added data do not suffer from measurement problems, or from differences in interpretation of the concept (unlike sales, which can be operating revenues, total revenues or net sales). As value added is the value of outputs minus the inputs that firms purchase (or net addition to production), it can be compared with GDP.

24. Labour productivity can reflect many differences other than efficiency between firms: capital intensity, capacity utilization, scale economies, extent of vertical integration and so on.

25. The data for 1991-1995 are taken from Cantwell and Janne, 1998.

CHAPTER II

BENCHMARKING FDI PERFORMANCE AND POTENTIAL

A. Introduction and methodology

Benchmarking national economies is now an important tool for policy-making (Lall, 2001b). Comparisons with similar economies are a good indication of how well countries are doing against the competition, while comparisons with better performing economies can show where to head in the future. Since attracting FDI is now an important policy concern for countries at all levels of development, it is useful to develop benchmarks of inward FDI performance.

One simple way to benchmark FDI performance is to compare the absolute values of inflows or the shares of FDI in national investment. The *World Investment Report* has long provided such data (see tables in annex B). These comparisons do not, however, take into account the size of the host economy. It is a reasonable assumption that the larger the economy (as measured by GDP) the more FDI it will get. It is more interesting to assess how successful an economy is in attracting FDI after taking size into account. This can implicitly capture the effect of other factors to which foreign investors are sensitive: political and macroeconomic stability, the FDI policy regime, industrial competitiveness, natural and human resources, and the like.

WIR01 introduced an Inward FDI Index to benchmark success in attracting FDI.[1] This chapter simplifies and revises that index, renaming it the *UNCTAD Inward FDI Performance Index*. The Inward FDI Performance Index is the ratio of a country's share in global FDI flows to its share in global GDP. Countries with an index value of one receive FDI exactly in line with their relative economic size. Countries with an index value greater than one attract more FDI than may be expected on the basis of relative GDP. They may have exceptionally welcoming regulatory regimes, be very well managed in macroeconomic terms, or have efficient

and low-cost business environments. They may offer other competitive attractions: good growth prospects, ample and economical skilled labour, natural resources, good R&D capabilities, advanced infrastructure, efficient financial support or well-developed supplier clusters. Or they may have privileged access or a favourable location for exporting to large markets, or serve as entrepôt bases or tax havens, and so on. On the other hand, countries with index values below one may suffer from instability, poor policy design and implementation or competitive weaknesses in their economies.

The Inward FDI Performance Index should be treated with care as an indicator of countries' inward FDI positions. There are problems in compiling and comparing FDI inflow data.[2] Tax havens will tend to show massive inflows in relation to their size. Some countries may have "lumpy" inflows for short periods, say because of newly discovered resources, mega M&As involving foreign investors or large privatizations. Economies that have been relatively isolated from international capital flows and have recently opened up may also get a substantial wave of FDI. Even countries with steady FDI inflows may change ranks if their share in global GDP changes.

To offset these problems, the coverage of the Index excludes most tax havens (it ends up with a sample of 140 countries) and uses data for three-year periods rather than a single year. However, this does not overcome all the difficulties, as noted in the discussion below. The Index is calculated for two periods spanning the past decade: 1988-1990 and 1998-2000.

WIR02 also constructs an index to rank countries according to their *potential* to attract FDI: the *UNCTAD Inward FDI Potential Index*. It is not possible, with the available data, to capture the host of factors that can affect FDI (figure II.1). Social, political

and institutional factors are difficult to quantify at the national level. It is particularly difficult to compare how efficiently policies are implemented. Many economic and competitiveness factors – of the type relevant to foreign investors – are also difficult to benchmark. Take, for instance, the skills available for manufacturing or services. Data on enrolments in formal education, generally used to benchmark the skill base, cannot capture the availability or quality of specific skills. There are similar problems in comparing technological capabilities or infrastructure. Such factors as the strength of local suppliers or the efficacy of support institutions are even more difficult to measure. Finally, FDI decisions depend also on the *perception* of individual TNCs, and this may be at variance with data based on past performance.

This said, it is still useful to benchmark the key measurable factors (apart from the size of an economy) that are expected to affect inward FDI. After examining a large number of variables, construction of the FDI Potential Index settled on eight; the final index is then an unweighted average of their normalized values.[3] The variables are *the rate of growth of GDP; per capita GDP; share of exports in GDP; telephone lines per 1,000 inhabitants; commercial energy use per capita; share of R&D expenditures in gross national income; share of tertiary students in the population; and country risk*. The annex to this chapter gives the rationale for their inclusion, a brief description and sources of information for these variables. The FDI Potential Index is also calculated for the two periods, 1988-1990 and 1998-2000.

Note that these two indices are not intended to provide a full-blown model of FDI location or to measure the impact of FDI on host economies. The exercise is more modest: to provide useful data to policy-makers and analysts on relative performance.

B. The UNCTAD Inward FDI Performance Index

The Inward FDI Performance Index values for countries vary widely (table II.1). There are nine countries with FDI Performance Index values of one (whose inward FDI matches their size). There are 31 countries for which FDI is more or less in line with their size (taking a broader median FDI Performance Index ranging from 1.2 to 0.8), 43 countries that get more FDI than expected given their size, and 66 that get less.

Figure II.1.   Host country determinants of FDI
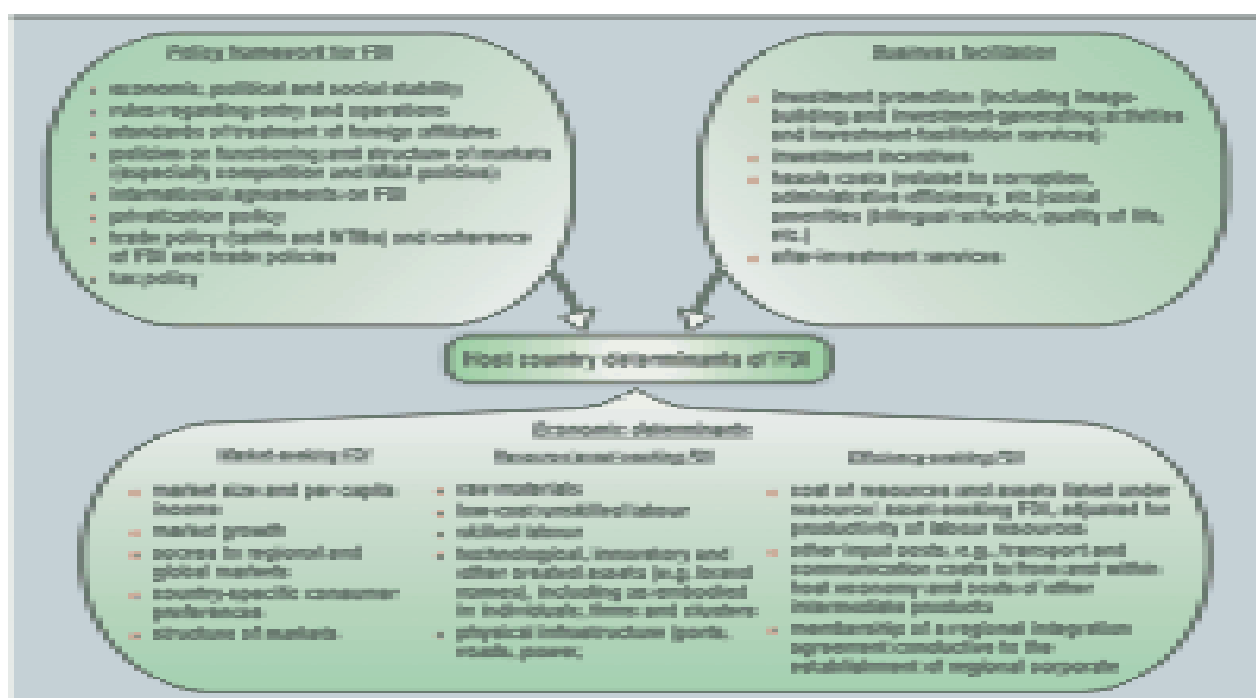
Table II.1. Values of and country rankings by the UNCTAD Inward FDI Performance Index and Inward FDI Potential Index, 1988-1990 and 1998-2000[a]

Economy	FDI Performance Index				FDI Potential Index			
	Value		Rank		Score 0-1		Rank	
	1988-1990	1998-2000	1988-1990	1998-2000	1988-1990	1998-2000	1988-1990	1998-2000
Albania	3.9	0.6	12	81	0.165	0.207	97	100
Algeria	0.0	0.3	126	111	0.198	0.216	76	96
Angola	-0.0	5.1	129	3	0.151	0.166	105	126
Argentina	1.2	1.4	48	37	0.204	0.317	72	55
Armenia	0.2	2.5	112	15	0.204	0.170	71	123
Australia	2.8	0.6	22	88	0.475	0.569	15	16
Austria	0.4	0.7	98	75	0.458	0.524	17	23
Azerbaijan	9.2	3.3	3	8	0.224	0.174	64	121
Bahamas	0.5	1.1	82	48	0.342	0.462	28	28
Bahrain	1.9	1.3	31	40	0.324	0.430	33	30
Bangladesh	0.0	0.1	127	122	0.098	0.162	130	128
Belarus	0.1	0.5	122	90	0.312	0.305	36	58
Belgium and Luxembourg	3.9	13.8	13	1	0.516	0.604	11	10
Benin	2.6	0.8	23	71	0.086	0.160	134	130
Bolivia	1.0	3.0	54	10	0.154	0.266	103	76
Botswana	2.2	0.3	29	109	0.297	0.346	41	45
Brazil	0.4	1.3	95	42	0.209	0.241	70	89
Brunei Darussalam	0.0	0.1	125	128	0.315	0.424	35	33
Bulgaria	0.8	1.8	67	24	0.301	0.321	39	53
Burkina Faso	0.1	0.2	116	116	0.137	0.185	112	113
Cameroon	-0.3	0.1	137	120	0.164	0.181	99	115
Canada	1.3	1.6	46	30	0.618	0.629	2	5
Chile	3.7	2.3	15	17	0.239	0.342	56	47
China	0.9	1.2	61	47	0.234	0.251	59	84
Colombia	0.4	0.7	96	77	0.213	0.242	69	88
Congo, Dem. Rep. of the	-0.1	0.2	134	118	0.097	0.085	131	138
Congo	0.3	0.7	107	79	0.171	0.207	91	101
Costa Rica	2.6	1.0	24	56	0.223	0.316	65	56
Côte d'Ivoire	0.4	0.9	101	64	0.150	0.195	107	108
Croatia	0.8	1.7	65	27	0.218	0.343	68	46
Cyprus	1.9	0.4	35	102	0.331	0.414	30	34
Czech Republic	2.8	2.5	20	13	0.325	0.380	31	39
Denmark	0.8	2.8	62	12	0.517	0.615	10	8
Dominican Republic	1.9	1.6	32	31	0.191	0.328	80	52
Ecuador	1.5	1.2	41	45	0.171	0.199	92	107
Egypt	2.8	0.5	21	91	0.172	0.287	90	66
El Salvador	0.2	1.1	111	50	0.127	0.332	119	49
Estonia	9.4	2.3	2	16	0.282	0.391	47	37
Ethiopia	0.1	0.5	118	97	0.085	0.171	135	122
Finland	0.5	1.9	81	22	0.559	0.626	6	6
France	0.9	0.8	60	69	0.510	0.553	13	19
Gabon	1.4	0.5	44	96	0.188	0.253	81	83
Gambia	1.9	0.9	34	62	0.199	0.250	75	85
Georgia	0.5	1.4	88	36	0.235	0.140	58	134
Germany	0.3	1.3	106	43	0.520	0.547	9	20
Ghana	0.2	0.3	113	107	0.140	0.179	110	117
Greece	1.3	0.1	45	125	0.301	0.414	40	35
Guatemala	2.0	0.5	30	94	0.110	0.234	125	91
Guinea	0.6	0.3	74	106	0.129	0.203	118	106
Guyana	0.7	2.2	72	19	0.110	0.351	127	43
Haiti	0.4	0.1	102	124	0.065	0.133	139	136
Honduras	1.2	1.0	49	53	0.155	0.232	101	93
Hong Kong, China	5.4	5.9	4	2	0.441	0.589	21	13
Hungary	5.0	1.1	6	49	0.274	0.357	48	42
Iceland	0.3	0.4	104	98	0.516	0.604	12	9
India	0.1	0.2	121	119	0.165	0.204	96	104
Indonesia	0.8	-0.6	63	138	0.203	0.189	73	110
Iran, Islamic Rep. of	-0.1	0.0	135	135	0.154	0.278	102	69
Ireland	0.7	5.1	71	4	0.377	0.599	25	11
Israel	0.4	0.8	100	70	0.388	0.531	24	21
Italy	0.6	0.2	79	115	0.412	0.464	23	27
Jamaica	1.9	1.7	33	26	0.186	0.265	83	79
Japan	0.0	0.1	128	131	0.557	0.586	7	14
Jordan	0.4	0.6	97	86	0.179	0.301	87	60
Kazakhstan	3.3	2.0	17	21	0.269	0.260	49	82
Kenya	0.5	0.2	90	117	0.127	0.168	120	124
Korea, Republic of	0.5	0.6	93	87	0.449	0.558	19	18
Kuwait	0.0	0.0	124	132	0.229	0.425	61	32
Kyrgyzstan	3.9	1.0	14	55	0.186	0.139	82	135
Latvia	4.7	1.6	7	32	0.358	0.289	26	65
Lebanon	0.1	0.1	117	126	0.141	0.297	109	62
Libyan Arab Jamahiriya	0.5	-0.1	86	136	0.182	0.218	85	95
Lithuania	1.0	1.5	56	33	0.332	0.304	29	59
Madagascar	0.5	0.4	89	99	0.121	0.184	121	114
Malawi	1.1	1.0	51	61	0.150	0.203	106	105

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Table II.1. **Values of and country rankings by the UNCTAD Inward FDI Performance Index and Inward FDI Potential Index, 1988-1990 and 1998-2000ᵃ (concluded)**

Economy	FDI Performance Index				FDI Potential Index			
	Value		Rank		Score 0-1		Rank	
	1988-1990	1998-2000	1988-1990	1998-2000	1988-1990	1998-2000	1988-1990	1998-2000
Malaysia	4.4	1.2	8	44	0.252	0.368	52	40
Mali	0.3	0.7	105	76	0.132	0.216	117	97
Malta	2.4	4.6	28	5	0.324	0.500	34	24
Mexico	1.5	0.7	42	78	0.196	0.278	77	70
Moldova, Republic of	1.7	1.7	38	29	0.285	0.194	46	109
Mongolia	0.8	0.5	66	93	0.254	0.266	51	75
Morocco	0.6	0.4	76	101	0.178	0.237	88	90
Mozambique	0.3	1.8	109	23	0.068	0.178	137	118
Myanmar	1.9	0.6	36	82	0.067	0.083	138	139
Namibia	0.5	0.9	94	63	0.164	0.279	98	68
Nepal	0.1	0.0	120	133	0.110	0.163	126	127
Netherlands	3.1	3.3	19	7	0.520	0.592	8	12
New Zealand	4.0	1.0	10	54	0.429	0.492	22	25
Nicaragua	0.0	3.1	123	9	0.087	0.206	133	102
Niger	0.7	0.1	69	121	0.102	0.185	128	112
Nigeria	4.0	0.8	11	72	0.134	0.204	114	103
Norway	0.9	1.0	59	60	0.560	0.634	5	4
Oman	1.2	0.1	47	130	0.306	0.335	38	48
Pakistan	0.6	0.2	77	114	0.141	0.159	108	132
Panama	-2.8	2.5	139	14	0.225	0.384	63	38
Papua New Guinea	5.1	1.5	5	34	0.160	0.263	100	80
Paraguay	0.6	0.6	75	85	0.182	0.213	84	99
Peru	0.2	0.8	114	68	0.174	0.282	89	67
Philippines	1.7	0.6	39	89	0.139	0.265	111	78
Poland	1.9	1.4	37	38	0.256	0.329	50	51
Portugal	3.2	0.9	18	65	0.288	0.411	43	36
Qatar	-0.1	0.5	133	92	0.451	0.530	18	22
Romania	0.8	1.0	64	57	0.201	0.248	74	87
Russian Federation	0.3	0.3	108	104	0.310	0.291	37	64
Rwanda	0.6	0.1	73	129	0.072	0.094	136	137
Saudi Arabia	0.3	0.1	103	127	0.222	0.332	66	50
Senegal	0.6	0.6	78	83	0.133	0.180	116	116
Sierra Leone	1.0	0.0	55	134	0.101	0.078	129	140
Singapore	13.8	2.2	1	18	0.470	0.641	16	3
Slovakia	1.5	1.5	40	35	0.287	0.361	44	41
Slovenia	0.6	0.3	80	110	0.291	0.429	42	31
South Africa	-0.0	0.2	131	113	0.220	0.266	67	77
Spain	2.5	1.1	26	52	0.353	0.455	27	29
Sri Lanka	0.5	0.4	85	103	0.135	0.187	113	111
Sudan	-0.1	1.0	132	58	0.047	0.166	140	125
Suriname	-12.7	-2.0	140	140	0.166	0.315	94	57
Sweden	0.9	4.1	57	6	0.608	0.650	3	2
Switzerland	1.4	1.4	43	39	0.594	0.617	4	7
Syrian Arab Republic	0.5	0.3	92	105	0.171	0.320	93	54
Taiwan Province of China	0.9	0.3	58	112	0.444	0.570	20	15
Tajikistan	0.7	0.6	70	80	0.240	0.176	55	120
Macedonia, TFYR	0.5	0.9	91	66	0.194	0.250	78	86
Thailand	2.6	1.3	25	41	0.235	0.298	57	61
Togo	1.1	1.2	52	46	0.166	0.177	95	119
Trinidad and Tobago	2.4	2.8	27	11	0.227	0.295	62	63
Tunisia	0.7	0.8	68	67	0.179	0.268	86	74
Turkey	0.5	0.1	83	123	0.192	0.275	79	72
Uganda	-0.0	1.0	130	59	0.115	0.228	123	94
Ukraine	0.4	0.5	99	95	0.287	0.261	45	81
United Arab Emirates	0.1	-0.1	115	137	0.324	0.488	32	26
United Kingdom	3.3	1.8	16	25	0.478	0.559	14	17
United Republic of Tanzania	0.1	0.6	119	84	0.120	0.161	122	129
United States	1.1	0.8	50	74	0.649	0.666	1	1
Uruguay	0.5	0.3	87	108	0.233	0.348	60	44
Uzbekistan	0.3	0.4	110	100	0.251	0.233	53	92
Venezuela	0.5	1.1	84	51	0.246	0.269	54	73
Viet Nam	1.0	2.0	53	20	0.134	0.277	115	71
Yemen	-0.6	-1.0	138	139	0.090	0.216	132	98
Zambia	4.2	1.7	9	28	0.111	0.160	124	131
Zimbabwe	-0.2	0.8	136	73	0.152	0.147	104	133

Source: UNCTAD.

a Covering 140 countries.

Notes: The Inward FDI Performance Index for 1988-1990 for some countries refer to periods different from 1988-1990 as follows: 1989-1991 for Myanmar, 1990-1992 for Slovenia, 1991-1993 for Mongolia; 1992-1994 for Albania, Armenia, Belarus, Bulgaria, Czech Republic, Estonia, Hungary, Kazakhstan, Latvia, Lithuania, Poland, Republic of Moldova, Romania, Russian Federation, Slovakia, Ukraine and Uzbekistan; 1993-1995 for Croatia and Kyrgyzstan, and 1994-1996 for Azerbaijan, Georgia, Tajikistan and the former Yugoslav Republic of Macedonia. For other notes, please see annex table A.II.2.

How do regions fare according to the Index? The developed world is more or less balanced in terms of the FDI it receives vis-à-vis its economic size – with index-values at or close to one in both periods (table II.2). However, within the group of developed countries, there are interesting differences: the European Union scores highest and "other developed countries"[4] the lowest (the latter reflecting the low score for Japan). In considering performance on the basis of the Index, it is important to recall that the greater part of FDI in developed countries takes place in the form of M&As. Thus, the implications for them of a given position on the Index may be different, to some extent, from those for countries for which the same position primarily reflects greenfield investments. In both cases, however, similar (relative) additions are being made to host country production that is part of the international production systems of foreign firms, and many of the longer-term consequences are similar.[5]

The transition economies of CEE have ranked, as a group, at almost the same level throughout the decade, and receive more or less the FDI that their GDP would warrant. The developing world as a whole has also maintained its score over time, but its FDI inflows reflect its relative size. Among developing regions, Africa shows a large fall in its score, with both subgroups losing ground. In particular, "other Africa" (sub-Saharan Africa) goes from a score of 0.8 to 0.6, suggesting a loss in its relative attractiveness, even given its low share of global GDP. By contrast, Latin America and the Caribbean show a marked improvement in their scores. This reflects the strong performance of countries in South America; other countries in the region, including Mexico, show a significant fall in ranking.

Asia as a whole moves from a score of above one to below one. This reflects weakened performance in West Asia and East and South-East Asia. There is, however, a marked difference between the two subregions. West Asia has a very low score in both periods (the lowest of all regions in the second), while East and South-East Asia retain a value of well above one in both. South Asia improves its score, but from a very low base; by the end of the decade its score was the second lowest of those for all developing regions.

The country rankings for FDI performance yield interesting findings. The top 20 countries include five small developed countries, 12 developing economies and three from CEE (figure II.2). The bottom 20 countries are mainly developing countries, including several LDCs, but they also include Japan and Greece.

There is marked *heterogeneity* among countries with similar FDI performance, largely reflecting the effect of short-term factors. In 1998-2000, for instance, the global leaders are Belgium/Luxembourg, Hong Kong (China) and Angola. Belgium/Luxembourg, as a rich economy located in the heart of Europe, is expected to have (and retain) a high rank. Angola, by contrast, scores high towards the end of the period because it received a surge of FDI in petroleum in response to more stable political conditions; the surge took it to second place from 129th position in 1988-1990. One implication of this difference in the underlying factors between the two is that a rich and well-located country that does well on the Index may expect to sustain good performance over time, while a poor country that receives a sudden inflow may not, once investments have "adjusted" to its new situation unless it leverages the large inflows to grow rapidly.

Table II.2. Inward FDI Performance Index, by region, 1988-1990 and 1998-2000

Region	1988-1990	1998-2000
World	**1.00**	**1.00**
Developed countries	**1.01**	**1.00**
Western Europe	1.28	1.72
European Union	1.28	1.74
Other Western Europe	1.33	1.22
North America	1.12	0.82
Other developed countries	0.29	0.12
Developing countries	**0.99**	**0.99**
Africa	0.80	0.52
North Africa	0.84	0.42
Other Africa	0.77	0.60
Latin America and the Caribbean	0.91	1.37
South America	0.72	1.28
Other Latin America and the Caribbean	1.33	1.57
Asia	1.07	0.85
West Asia	0.26	0.11
Central Asia	..	1.58
South, East and South-East Asia	1.31	1.00
East and South-East Asia	1.73	1.20
South Asia	0.12	0.16
The Pacific	4.40	0.58
Central and Eastern Europe	**0.89[a]**	**0.98**

Source: UNCTAD.

[a] 1992-1994. As most of the countries in this region did not exist in their present form before 1992, the period for the Index is adjusted.

Figure II.2. The UNCTAD Inward FDI Performance Index, by host economy: the top 20 and the bottom 20, 1998-2000
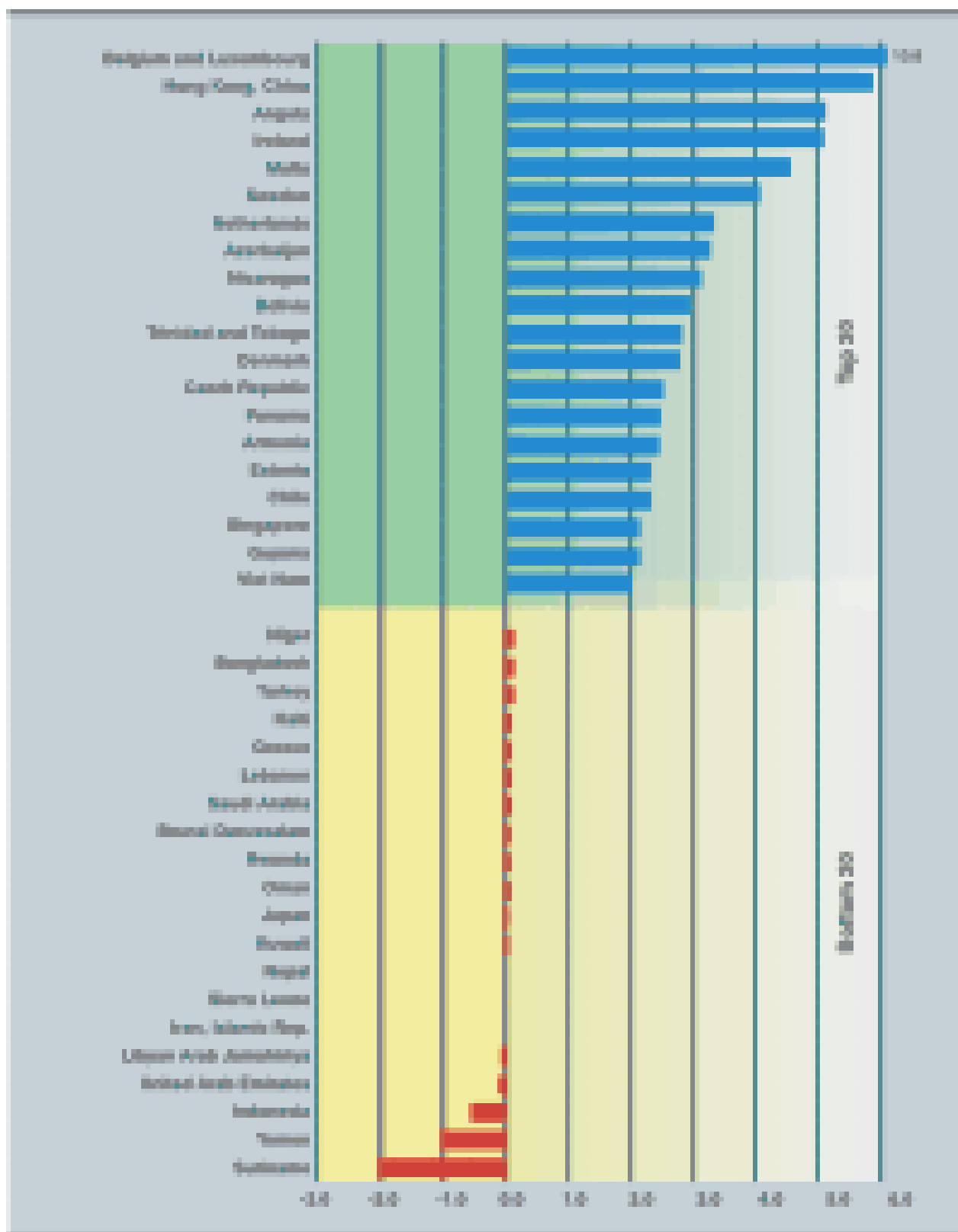
Source: UNCTAD.

Largely because of the influence of short-term factors, Performance Index rankings change dramatically over the two periods.[6] There are thus 37 countries that improved their rank by 20 or more places over the period and 43 that lost 20 or more places. The biggest "winners", apart from Angola, are Panama, Nicaragua and Armenia. Oman, Greece, Botswana and Sierra Leone, on the other hand, moved down the list. Note again that the shifts in ranks reflect not only relative changes in FDI inflows but also in relative GDP; thus, a drop in rank might well indicate, for instance, improved prosperity with relatively higher GDP and stable FDI.

Many of the rankings in the latest period are in line with expectations, but they also contain surprises. Countries with Performance Index values of more than one include several advanced industrial economies whose FDI performance reflects high incomes and technological strengths (e.g. the United Kingdom) or a location within large regional markets such as the EU (e.g. Ireland). In some countries, like Sweden, the high index value reflects large M&A activity (Sweden has one of the largest jumps in ranking). Some economies such as Hong Kong (China) and Singapore, are strategically placed as service centres for large dynamic hinterlands or as export bases (but Singapore loses rank because FDI growth has not kept pace with income growth, probably reflecting, at least partly, the adverse impact of the Asian financial crisis on the regional market in which it is located). In many other countries with high scores, the scores reflect the end of political or economic crises, transition from command to market-oriented economies, or massive privatization programmes.

Countries with low index values that receive less FDI than warranted by their size, also vary greatly. Some are very large economies that attract large amounts of FDI, albeit low in relation to GDP (United States). Others traditionally have been relatively closed to FDI (e.g. Japan and the Republic of Korea, though the latter moves up in the ranks because of recent liberalization). Some have attracted significant FDI in the past, but in the recent period are suffering from economic or political shocks (e.g. Indonesia). Many are simply poor or have not improved their investment climate sufficiently to compete effectively for FDI.

C. The UNCTAD Inward FDI Potential Index

The Inward FDI Potential Index also yields interesting results. In contrast to the Performance Index that is based on FDI inflows, this index is based largely on structural economic factors that tend to change fairly slowly over time. As a result, the index values for countries are fairly stable over time,[7] and correspond by and large to levels of economic development. The top 20 economies, based on the Inward FDI Potential Index in 1998-2000 include all four high-income developing economies (Hong Kong, China; Republic of Korea; Singapore; and Taiwan Province of China), as well as mature industrial countries (figure II.3). The bottom 20 ranks are all held by developing countries.

Most developed countries tend to sustain similar ranks over time, while some developing countries and economies in transition make large upward or downward leaps. The largest improvements in the FDI Potential Index ranks are by Guyana, El Salvador and Lebanon, and the largest declines by Georgia, Tajikistan and Moldova.

D. Comparing rankings on the two Indices

The FDI Potential Index does not, for reasons given above, "explain" flows of FDI in a statistical sense. However, it is useful to *compare the rankings based on the two indices* as a rough guide to whether countries are performing adequately given their (restricted set of) structural assets.

The ranking of countries according to the Performance and Potential Indices yields a fourfold matrix, as follows:

• countries with high FDI performance (i.e. above the mid-point of the ranking by performance of all countries) and high potential (i.e. above the mid-point of the ranking by the potential of all countries): the "front-runners";

• countries with high FDI performance (i.e. above the mid-point of the ranking by performance of all countries) and low potential (i.e. below the mid-point of the ranking by the potential of all countries): the " above-potential economies";

Figure II.3. The UNCTAD Inward FDI Potential Index,ᵃ by host economy: the top 20 and the bottom 20, 1998-2000
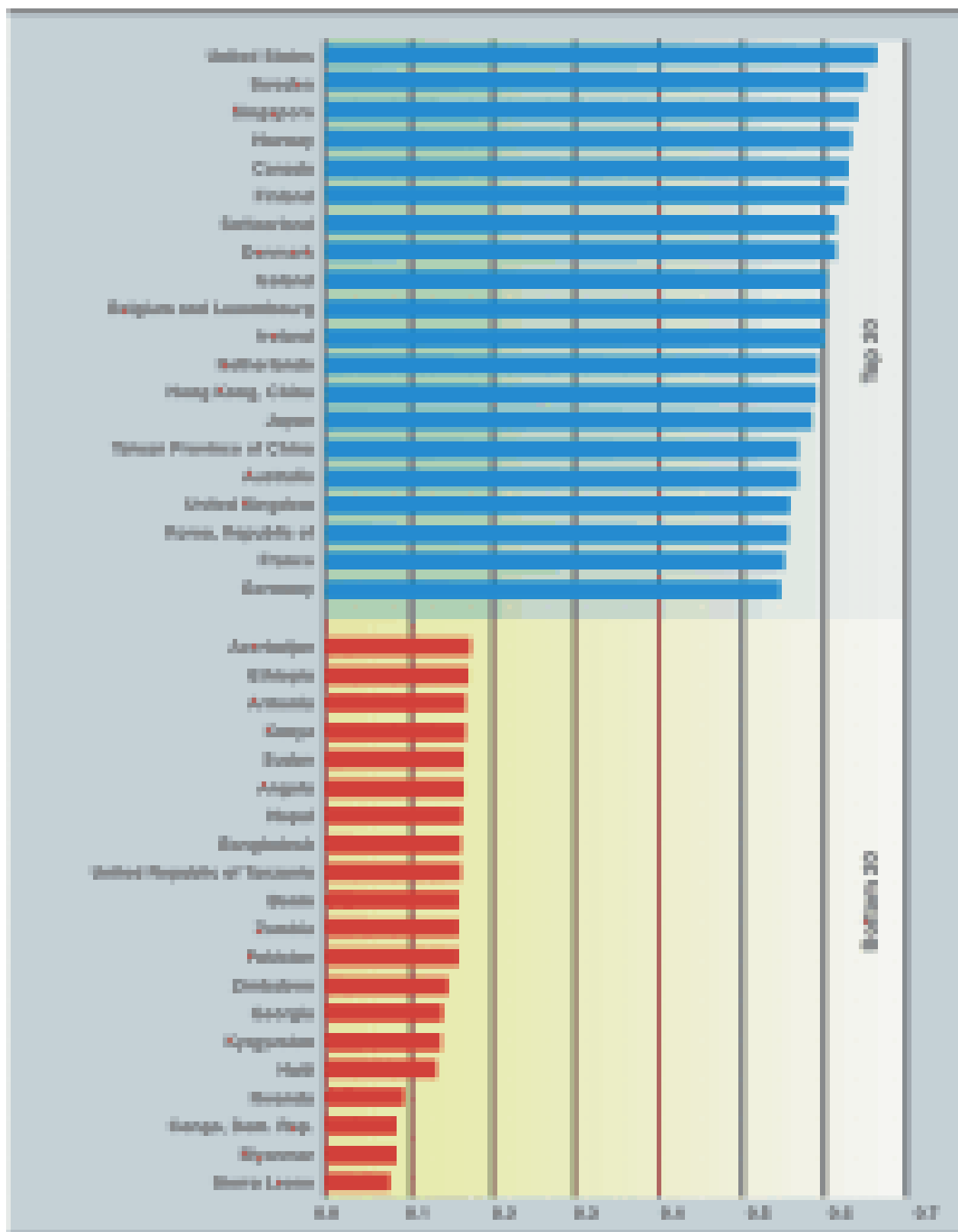
Source: UNCTAD.

ᵃ Based on eight economic and policy variables.

- countries with low FDI performance (i.e. below the mid-point of the ranking by performance of all countries) and high potential (i.e. above the mid-point of the ranking by the potential of all countries): the " below-potential economies"; and

- countries with low FDI performance (i.e. below the mid-point of the ranking by performance of all countries) and low potential (i.e. below the mid-point of the ranking by the potential of all countries): the "under-performers".

In 1998-2000, there are 42 front-runners, countries that combine strong potential and performance (table II.3). This group includes leading industrial countries like France, Germany,[8] Sweden, Switzerland and the United Kingdom, Asian "tigers" – including newer ones – such as Hong Kong (China), Malaysia, Singapore and Thailand, and well-performing (at the time) Latin American economies such as Argentina and Chile. It also includes strong entrants to the FDI scene such as Costa Rica, Hungary, Ireland and Poland.

Table II.3. Country classification by FDI performance and potential, 1988-1990 and 1998-2000

	High FDI performance	Low FDI performance
1998-2000		
High FDI potential	**Front-runners** Argentina, Bahamas, Bahrain, Belgium and Luxembourg, Bulgaria, Canada, Chile, Costa Rica, Croatia, Czech Republic, Denmark, Dominican Republic, El Salvador, Estonia, Finland, France, Germany, Guyana, Hong Kong (China), Hungary, Ireland, Israel, Latvia, Lithuania, Malaysia, Malta, Namibia, Netherlands, New Zealand, Norway, Panama, Peru, Poland, Portugal, Singapore, Slovakia, Spain, Sweden, Switzerland, Thailand, Trinidad and Tobago and United Kingdom.	**Below-potential** Australia, Austria, Belarus, Botswana, Brunei Darussalam, Cyprus, Egypt, Greece, Iceland, Islamic Republic of Iran, Italy, Japan, Jordan, Kuwait, Lebanon, Mexico, Oman, Qatar, Republic of Korea, Russian Federation, Saudi Arabia, Slovenia, Suriname, Syrian Arab Republic, Taiwan Province of China, United Arab Emirates, United States and Uruguay.
Low FDI potential	**Above potential** Angola, Armenia, Azerbaijan, Bolivia, Brazil, China, Côte d'Ivoire, Ecuador, Gambia, Georgia, Honduras, Jamaica, Kazakhstan, Kyrgyzstan, Malawi, Mozambique, Nicaragua, Papua New Guinea, Republic of Moldova, Romania, Sudan, TFYR Macedonia, Togo, Tunisia, Uganda, Venezuela, Viet Nam and Zambia.	**Under-performers** Albania, Algeria, Bangladesh, Benin, Burkina Faso, Cameroon, Colombia, Dem. Rep. of Congo, Congo, Ethiopia, Gabon, Ghana, Guatemala, Guinea, Haiti, India, Indonesia, Kenya, Libyan Arab Jamahiriya, Madagascar, Mali, Mongolia, Morocco, Myanmar, Nepal, Niger, Nigeria, Pakistan, Paraguay, Philippines, Rwanda, Senegal, Sierra Leone, South Africa, Sri Lanka, Tajikistan, Turkey, Ukraine, United Republic of Tanzania, Uzbekistan, Yemen and Zimbabwe.
1988-1990		
High FDI potential	**Front-runners** Australia, Azerbaijan, Bahrain, Belgium/ Luxembourg, Botswana, Canada, Chile, China, Costa Rica, Croatia, Cyprus, Czech Republic, Denmark, Estonia, France, Greece, Hong Kong (China), Hungary, Kazakhstan, Latvia, Lithuania, Malaysia, Malta, Mongolia, Netherlands, New Zealand, Norway, Oman, Poland, Portugal, Republic of Moldova, Singapore, Slovakia, Spain, Sweden, Switzerland, Taiwan Province of China, Tajikistan, Thailand, Trinidad and Tobago, United Kingdom and United States.	**Below-potential** Austria, Bahamas, Belarus, Brazil, Brunei Darussalam, Bulgaria, Colombia, Finland, Georgia, Germany, Iceland, Ireland, Israel, Italy, Japan, Kuwait, Panama, Qatar, Republic of Korea, Russian Federation, Saudi Arabia, Slovenia, South Africa, Ukraine, United Arab Emirates, Uruguay, Uzbekistan and Venezuela.
Low FDI potential	**Above-potential** Albania, Argentina, Benin, Bolivia, Dominican Republic, Ecuador, Egypt, Gabon, Gambia, Guatemala, Guinea, Honduras, Indonesia, Jamaica, Kyrgyzstan, Malawi, Mexico, Myanmar, Niger, Nigeria, Papua New Guinea, Philippines, Rwanda, Sierra Leone, Togo, Tunisia, Viet Nam and Zambia.	**Under-performers** Algeria, Angola, Armenia, Bangladesh, Burkina Faso, Cameroon, Côte d'Ivoire, Dem. Rep. of Congo, El Salvador, Ethiopia, Ghana, Guyana, Haiti, India, Islamic Republic of Iran, Jordan, Kenya, Lebanon, Libyan Arab Jamahiriya, Madagascar, Mali, Morocco, Mozambique, Namibia, Nepal, Nicaragua, Pakistan, Paraguay, Peru, Republic of Congo, Romania, Senegal, Sri Lanka, Sudan, Suriname, Syrian Arab Republic, TFYR Macedonia, Turkey, Uganda, United Republic of Tanzania, Yemen and Zimbabwe.

Source: UNCTAD.

The group of above-potential economies comprise mainly countries without strong structural capabilities that have done well in attracting FDI. Most are relatively poor and lack a strong industrial base. Note that Brazil appears in this category because, while its potential remained relatively stable over the 1990s at a level comparable to those of other Latin American host countries (table II.1), by the end of the decade it was building upon its capabilities to attract FDI in line with its size, especially through privatization (in 1988-1990 it showed strong potential but low performance). China is also in this group, although a decade ago (1988-1990) it was listed in the group of front-runners. This is because its ranking on the FDI Potential Index (based, it should be recalled, on eight variables) slipped below the mid-point of the ranking of all countries, even though its score for the Index rose between these two periods (table II.1).

The group of below-potential economies include many rich and relatively industrialized economies that have a weak FDI performance because of policy and a tradition of low reliance on FDI (e.g. Japan, Italy, Taiwan Province of China and the Republic of Korea, especially in the earlier period), political and social factors or weak competitiveness (not captured by the variables used here). The United States also falls within this category in the latest period, as FDI inflows to this country are relatively low given the relative size of the economy, even though it is the largest host country with the highest score on the Potential Index. The group also includes developing countries that are relatively capital-abundant (e.g. Saudi Arabia), or where FDI flows may not reflect the extent of TNC participation adequately because of a reliance on local financing (Botswana). Mexico appears, on the basis of the latest data, to have a relatively weak FDI performance with lower potential; at the start of the decade it had a strong FDI performance. The weaker performance in the later period reflects slow growth in FDI inflows relative to the world average, and, more importantly, faster growth in GDP relative to the world average.

The under-performers are generally poor countries that, for economic or other reasons, do not attract their expected share of global FDI. Some countries in the group of above-potential economies moved into this group after a significant decline in FDI inflows caused by a major financial crisis over the past decade (e.g. Indonesia, the Philippines).

Other changes in country positioning are also interesting. There are policy implications for the countries that remain in the same category over time: the front-runners need to retain their competitive edge and ability to attract FDI, the under-performers have to improve both, and so on. Similarly, there are implications for countries that retain high potential but slide in terms of FDI attracted (Australia is a good example): if they wish to attract more FDI, they may need to address specific problems related to poor investor perceptions. Countries that move from under-performers to above-potential economies (e.g. Armenia) need to strive to build their competitive potential quickly to retain their edge in attracting investors.

This analysis can offer many interesting insights for FDI analysis and policy. However, the indices are still at a formative stage. There is much that can be done to improve, broaden and deepen them, in particular the Inward FDI Potential Index. It does not include a number of factors that are known to affect international investment flows, and there may be more appropriate variables that could replace some of those now used; the problem is, of course, to obtain satisfactory quantitative data for a large number of countries. It is hoped that this constraint will, at least in part, be relieved over time.

Notes

[1] The *WIR01* Inward FDI index was the unweighted average of a country's share in global FDI flows divided by three things: its share in global GDP, its share in global employment and its share in global exports. The Inward FDI Performance Index introduced here is a simplified version in which the employment and export variables have been dropped – the former because of its overlap with GDP as a measure of market size and economic strength, and the latter because of the ambiguous nature of its relationship to FDI. Other indices have been developed to measure and rank countries' relative performance and/or attractiveness with respect to inward FDI. The *FDI Confidence Index*, constructed by A.T. Kearney, uses data from an annual survey of senior executives of the world's 1,000 largest corporations. That index is a weighted average of the number of high, medium, low and no-interest responses to a question about the likelihood of investment in a country in the next one to three years (Kearney, A.T, 2001). Another index is the *FDI Sustainability Index*, developed by The Economist Advisory Group to score subsidiary sustainability, supplemented by the inclusion of qualitative factors at the firm, industry, regional, national and global levels. The *Transnationality Index*, developed by UNCTAD to measure the overall significance of international production in an economy, is another measure (see chapter I).

[2] Some problems in the use of flow data for deriving the Index are noted in the annex to this chapter.

[3] Each variable is normalized to make it comparable to the others: a score of one is assigned to the highest value the variable takes for the economies in the sample, and a score of zero to the lowest value. The other countries are assigned scores between one and zero, taking into account their distance from the highest and the lowest. This is done by taking the value of a variable for a country, subtracting from it the lowest value for that variable among the countries, and dividing the result by the difference between the highest and lowest values of that variable among the countries (see annex to this chapter).

[4] These include Australia, Israel, Japan and New Zealand.

[5] See *WIR00* for a comparative discussion of cross-border M&As and greenfield FDI.

[6] The correlation between the ranks in the Inward FDI Performance Index in the two periods is 0.48.

[7] The rank correlation coefficient of the Inward FDI Potential Index over the two periods is 0.84, much higher than for the Performance Index (0.48).

[8] Were it not for the acquisition of Mannesmann by VodafoneAirTouch in 2000, Germany would be in the group of below-potential economies.

[9] GDP, which indicates market size as well as the overall economic strength of an economy and is undoubtedly an important determinant of FDI inflows, has been omitted because it is factored into the Inward FDI Performance Index.

Annex on methodology and data used for calculating UNCTAD's Inward FDI Performance Index and Inward FDI Potential Index

The UNCTAD Inward FDI Performance Index

The UNCTAD Inward FDI Performance Index is formulated as follows:

$$INDi = \frac{FDI_i / FDI_w}{GDP_i / GDP_w}$$

Where,
IND_i = The Inward FDI Performance Index of the ith country
FDI_i = FDI inflows in the ith country
FDI_w = World FDI inflows
GDP_i = GDP in the ith country
GDP_w = World GDP.

As in the case of the Inward FDI Index of *WIR01*, three-year averages of FDI inflows and GDP are used for calculating this Index. The use of FDI flow data has certain problems. In addition to imperfect reporting and non-inclusion of certain items in FDI data by some countries (see definitions and sources in annex B), problems arise on account of the growing importance of M&As as a mode of FDI entry. M&As not only exacerbate the lumpiness of FDI inflows, but may also distort the relationship between FDI inflows as reported in balance-of-payments (or financial) terms and the real resource flows expected to accompany them. Nevertheless, data on FDI inflows are the best practical means for building the Index: reliable FDI stock data (i.e. that are not simply aggregations of flow data) are available for fewer countries, especially developing countries, than flow data. Moreover, they do not show the current value of stocks, which may be misleading if inflows took place some years earlier.

Table II.1 gives the UNCTAD Inward FDI Performance Index and rankings by the index for 1988-1990 and 1998-2000 for all countries for which data are available.

The UNCTAD Inward FDI Potential Index

The Inward FDI Potential Index is the average of the scores on eight variables for each country. The score for each variable is derived as follows: the value of a variable for a country is taken, and subtracted from it is the lowest value for that variable among the countries; the result is then divided by the difference between the highest and lowest values of that variable among the countries. The country with the lowest value is given a score of zero and the country with the highest value, a score of one. Mathematically, it is expressed as

$$Score = \frac{V_i - V_{min}}{V_{max} - V_{min}}$$

where,
V_i = the value of a variable for the county i
V_{min} = the lowest value of the variable among the countries
V_{max} = the highest value of the variable among the countries.

The Inward FDI Potential Index uses indicators for key FDI determinants on which comparable data are available. This set of variables does not, of course, cover all the important factors affecting FDI. However, the excluded variables are difficult to benchmark across large numbers of countries (see figure II.1 for a comprehensive list). The choice of variables is based on findings of studies on FDI determinants (*WIR98*; Dunning, 1993). The correlation between each of a number of variables considered to be important, including the variables selected for the construction of the FDI Potential Index, and the FDI Performance Index is shown in annex table II.1.

The eight variables comprising the Inward FDI Potential Index are:

- *GDP per capita.*[1] This variable shows the level of economic development of a host country. It captures the size and sophistication of the demand for goods and services. It also shows the availability of developed institutions, good living conditions and the like, all of which attract FDI. In addition, higher per capita GDP often connotes higher labour productivity and stronger innovative capabilities, all conducive to FDI. (On the other hand, it also denotes higher wages, which might adversely affect low-cost labour-seeking FDI. On balance, however, low wages *per se* are not a major factor inducing FDI.)

- *Real GDP growth (for the past 10 years).* This variable is a predictor of the future size of a host-country market, one of the main determinants of FDI. Higher growth can also mean rising productivity that could induce other kinds of FDI.

- *Exports as a percentage of GDP.* This shows the degree of international exposure of a country. International business through

trade generally lays the ground for inward (as well as outward) FDI and the international production that serves to substitute for or complement trade. (FDI, in turn, can affect the export-GDP ratio positively. This would have to be taken into account in order to establish a clear causal relationship between the two. In the present analysis,

and the attendant competitive advantages that serve to attract FDI.)

- *Number of telephone lines per 1,000 inhabitants.* Telecommunications (as well as road and railway networks, not included in the analysis) are part of the basic physical infrastructure needed to conduct business. Their availability (and cost) is particularly important for FDI, as TNCs seek to coordinate production activity across countries.[2]

- *Commercial energy use per capita.* This is a proxy for the availability and cost of energy, which is an important input for many production activities and can be expected to be a factor influencing FDI, particularly of an efficiency-seeking type.

- *R&D expenditures as a percentage of gross national income.* This indicates the technological capabilities of a host economy, including innovative capacity – an important factor attracting created-asset-seeking FDI. In products and processes that are knowledge-based, competition tends to be severe and, as R&D activities in these areas are costly and risky, the quest for such assets is a driving force for international production.

- *Students in tertiary education as a percentage of total population.* This is a measure of the extent of higher education and related skills that a country's workforce embodies. An educated and skilled workforce is an inducement for FDI in industries facing global and regional competition.

- *Country risk.* This includes the political and commercial risks related to investing in a country. Political risk is related to factors such as a government's ability to fulfil its commitments and commercial risk to factors such as currency shortages (which affect the ability to remit profits) and sudden devaluations or financial crises that affect the ability of investors to plan for and meet financial commitments. Country risk is an indicator of the degree of political, economic and social stability of a country. The higher the risk assessment for a country, the less attractive it is for investors. Country risk assessments are provided by a number of institutions. Country ratings (on a scale of 0-100; the higher the number, the lower the risk) prepared by the PRS (Political Risk Services) Group/International Country Risk Guide, a country risk assessment company based in the United States, are used to measure country risk.[3] In choosing this variable, country rankings from Euromoney and country risks from Coface, an export credit insurance company in France, were also examined.[4]

The raw data and scores for each of the variables listed above are given in annex tables A.II.1 and A.II.2.

Notes

[1] GDP, which indicates market size as well as the overall economic strength of an economy and is undoubtedly an important determinant of FDI inflows, has been omitted because it is factored into the Inward FDI Performance Index.

[2] Road and railway networks that determine the costs of transporting goods and people are also an important aspect influencing investors. They have not been included in the index because of a lack of data for a number of countries and also to minimize the number of variables.

[3] The country rating is based on a set of 22 components grouped into three major categories of risk: political risk comprising 12 components (government stability; socio-economic conditions; investment profile; internal conflict; external conflict; corruption; military in politics; religious tensions; law and order; ethnic tensions; democratic accountability; and bureaucratic quality), financial risk comprising 5 components (foreign debt as a percentage of GDP; foreign debt service as a percentage of exports; current account as a percentage of exports; net liquidity as months of import cover; and exchange rate stability); and economic risk comprising 5 components (GDP per head of population; real annual GDP growth; annual inflation rate; budget balance as percentage of GDP; and current account balance as a percentage of GDP). In calculating the risk rating, the political risk rating contributes 50 per cent of the composite rating, while the other two risk categories each contribute 25 per cent. For further details, see International Country Risk Guide (www.ICRGOnline.com).

[4] The correlation between the country risk variable by PRS and the Inward FDI Performance Index is 0.262, while the correlation with Euromoney's country risk is 0.169, and that with Coface's country risk is 0.238. The correlation result is better for the country risk variable of PRS than that of Coface, and the former variable was available on its website for a longer time series.

CHAPTER III

REGIONAL TRENDS

Nearly all regions of the world shared in the global decline in FDI in 2001. By far the largest fall in flows took place in the developed world. Inward FDI flows to a number of developed countries plunged as TNCs responded to the economic recession, and as cross-border M&As decreased substantially in number and value. Outward FDI from developed countries plunged as well. FDI flows to and from developing countries declined much less, and the picture there was more varied. Flows to Africa and to the economies in transition of Central and Eastern Europe (CEE) increased, while flows to the least developed countries (LDCs) remained steady. This chapter takes a closer look at trends in FDI by region.

A. Developed countries

After reaching a peak in 2000, FDI flows to and from developed countries fell sharply in 2001. Outflows declined by 55 per cent in 2001, to $621 billion, while inflows more than halved, to $735 billion (annex tables B.1 and B.2). Twenty-three out of 26 developed countries experienced a decline in FDI inflows, as TNCs curtailed their cross-border M&As significantly against the background of the economic slowdown in major industrialized economies and the consolidation of industries that had taken place during the 1990s. FDI outflows also declined, and are expected to remain low in 2002.

1. United States

Despite the economic slowdown and the events of September 11, the United States retained its position as the largest FDI recipient and regained that of the world's largest investor, although both inward and outward flows in 2001 fell below the 1998 levels. Outward FDI declined by 30 per cent, down to $114 billion (figure III.1), while inflows more than halved, to reach $124 billion. The fall in inflows reflected fewer and smaller

M&A transactions by foreign firms in the United States, partly in response to the economic slowdown in major home countries. Few transactions exceeded a value of $4 billion, as against more than 10 transactions above that level in 2000 (Bach, 2002). The relative weakness of the euro against the dollar may also have played a role in reducing cross-border M&As in the United States. Nevertheless, such activity continued to be the primary mode of FDI entry, with TNCs from Germany taking the lead.[1] In fact, Germany became the second largest home country for investment in the United States, behind Switzerland, pushing the United Kingdom to the fifth place. The share of EU countries in FDI inflows to the United States declined from 74 per cent in 2000 to 48 per cent in 2001 (figure III.2). Flows of FDI to the United States from Latin America and the Caribbean, West Asia, Japan and developing Asia decreased, with FDI flows by Japanese firms turning negative on balance (partly due to intercompany debt outflows and negative reinvested earnings), the latter presumably weakened by the recession in their home economy and also, to some extent, because they redirected their investments to Asia.

The services sector, led by finance and insurance, accounted for one-third of United States inward FDI in 2001 (figure III.3). Retail trade and real estate were the only activities that attracted increased inflows. Compared to the beginning of the decade, FDI in services (and, in particular, financial services) has outperformed investment in the traditional manufacturing industries in recent years.

According to the UNCTAD indices of Inward FDI Performance and Potential, the United States leads in investment potential but ranks much lower in its FDI relative to GDP (figure III.4 and table II.1). Indeed the country's performance position has weakened over the past decade. This asymmetry may be explained by the

Figure III.1. Developed countries: FDI flows, top 10 countries, 2000 and 2001[a]
(Billions of dollars)
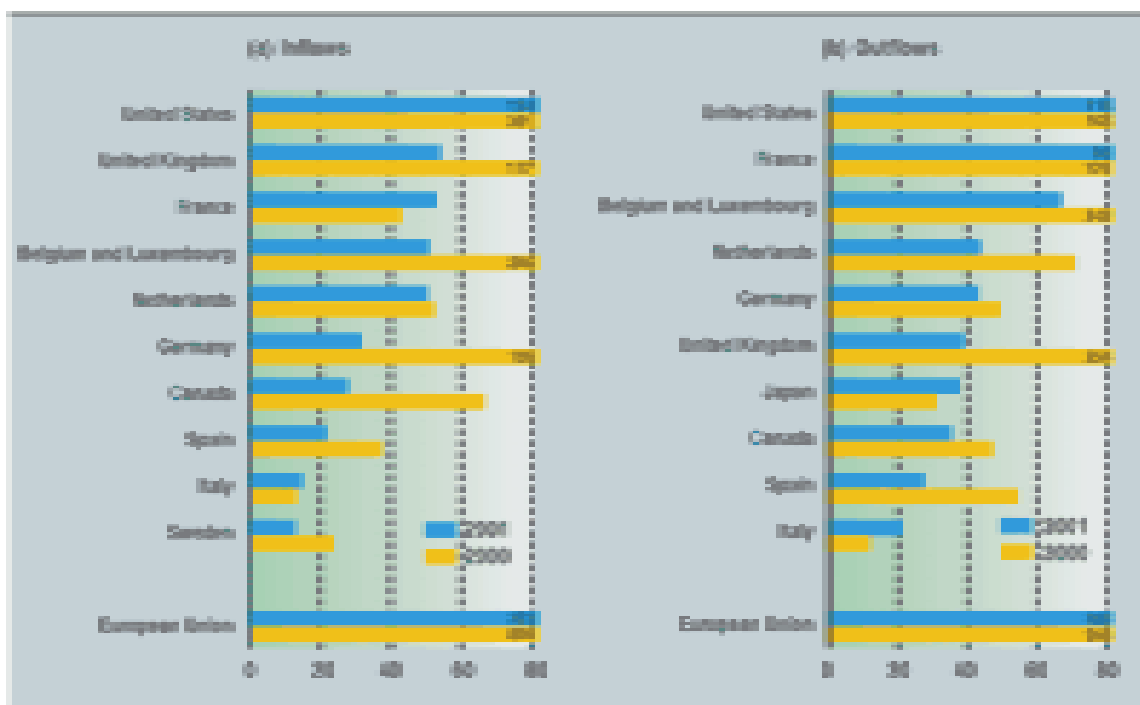
Source: UNCTAD, FDI/TNC database.

[a] Ranked on the basis of the magnitude of 2001 FDI flows.

Figure III.2. United States FDI inflows and outflows, by major partner, 1990-2001
(Billions of dollars)
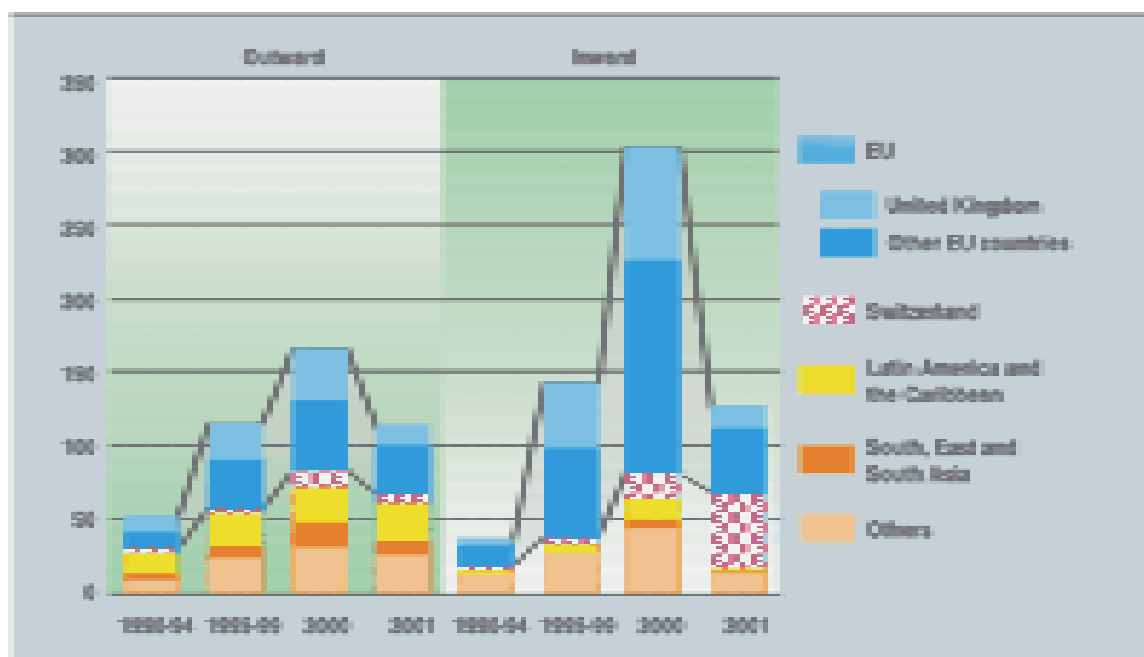
Source: UNCTAD, FDI/TNC database, based on the United States Department of Commerce, Bureau of Economic Analysis, www.bea.doc.gov, data retrieved in June 2002.

Figure III.3. United States FDI inflows and outflows, by major sector and industry, 1990-2001
(Billions of dollars)
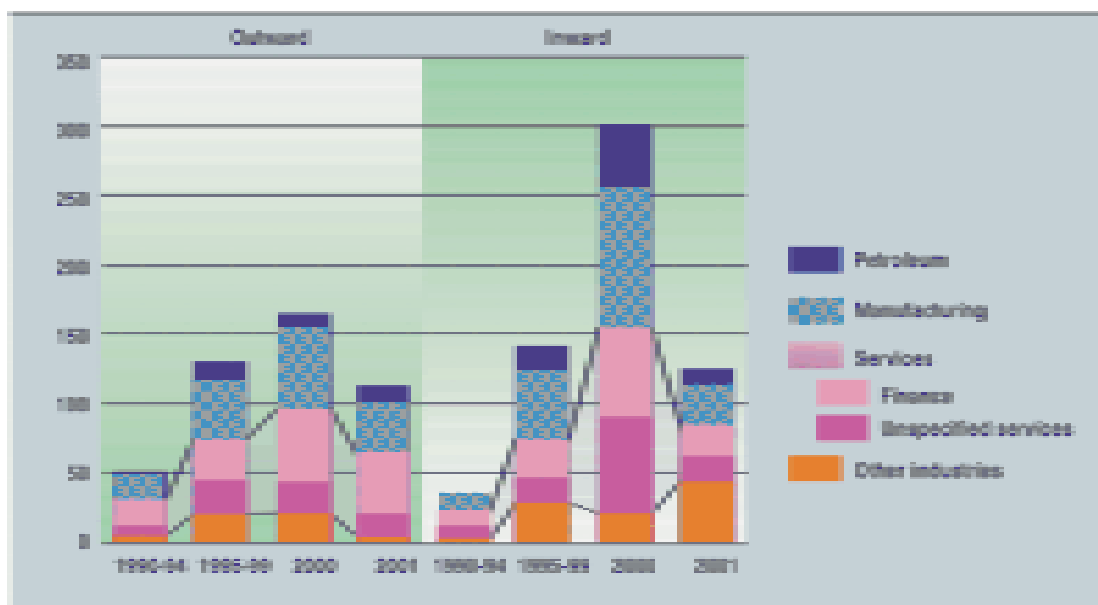
Source: UNCTAD, FDI/TNC database, based on the United States Department of Commerce, Bureau of Economic Analysis, www.bea.doc.gov, data retrieved in June 2002.

Figure III.4. The UNCTAD Inward FDI Performance Index and Inward FDI Potential Index for the United States and selected Western European countries, 1988-1990 and 1998-2000
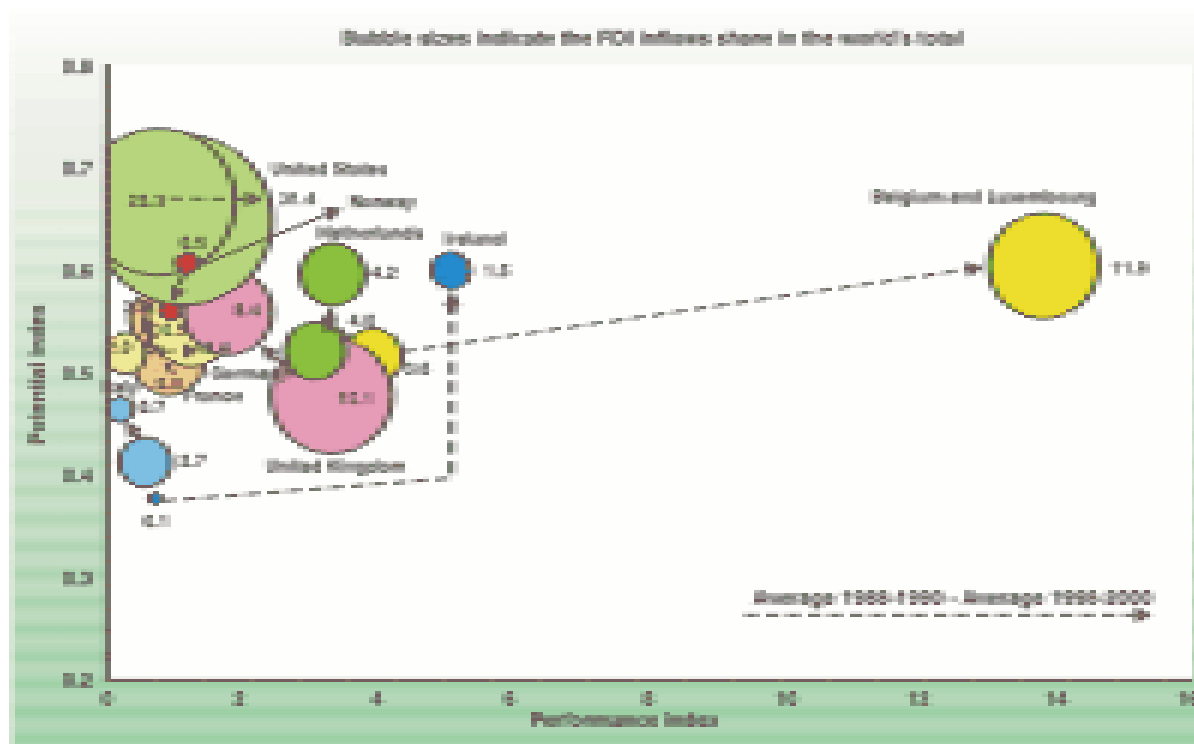
Source: UNCTAD, based on table II.1 and annex table B.1.

competitive strengths of United States firms. Still, the United States remains an attractive site for investment, and leading TNCs continue to regard it favourably, according to surveys of major investors.[2]

As in previous years, the main destination for United States outward FDI in 2001 was again the EU, which received more than 40 per cent of these outflows (figure III.2). The country's NAFTA partners – Canada and Mexico – together accounted for more than a quarter of total outflows, a major recipient being financial services in Mexico. FDI flows thus continue to strengthen the consolidation of the North American market, with Mexico emerging as an increasingly important partner. Developing countries accounted for more than a third of outflows, up from the previous year, but these were strongly affected by a single large acquisition in Mexico.[3] Other major transactions undertaken by United States firms include acquisitions in Germany (pharmaceuticals), Canada (natural gas, computer-related services), Asia (electronics, pharmaceuticals), and the United Kingdom (publishing) (Bach, 2002; annex table A.I.2).

Services continued to account for more than half of outward FDI, with financial services responsible for the largest share (figure III.3). Investment in machinery and equipment increased while that in transport services and electronics plunged, at least partly reflecting the economic slowdown and the impact of September 11 (EIU, 2002c). As the economy revived, FDI into and out of the United States picked up as well: inflows, having plunged in the third quarter of 2001 (accounting for only 10 per cent of total inflows during that year), increased in the fourth quarter partly in response to a revival in consumer confidence, a positive growth of GDP of 1.3 per cent, and low interest rates that encouraged consumer spending. During the first quarter of 2002, both inflows and outflows continued to grow.

2. Western Europe

a. European Union

FDI inflows and outflows to and from the EU (including intra-EU FDI) declined by about 60 per cent in 2001 (to $323 billion and $365 billion, respectively). Most flows remained within the EU, and most concentrated increasingly on services (particularly utilities, media and finance).[4] Cross-border M&As involving EU firms fell in number and value (annex tables B.7 and B.8).

Although the largest share of the EU's FDI flows goes to other EU members, the region as a whole continues to outperform the United States, as both investor and recipient, as it has done since 1998. Despite the recession in 2001 and the September 11 events, the United States remains the most attractive location for FDI from the EU (MIGA, 2002).

The overall trends as well as inter-country differences in FDI flows in the EU reflect trends and differences in cross-border M&As, since most flows into and from the EU (like those into and from other developed countries) occur through M&As. Cross-border M&As involving EU firms declined in number and value in 2001 (annex tables B.7 and B.8); there were fewer large deals, and none was comparable to the mega deals undertaken during 1999 and 2000, when there was a surge in such deals.

Some EU countries experienced a significant decline in FDI inflows in 2001 compared to the previous year. Examples include Germany (where inflows were unusually high in 2000 due to a single cross-border acquisition), the United Kingdom and, on a smaller scale, Denmark and Finland (where FDI inflows decreased by more than half and where M&As had also boosted inflows in 2000). On the other hand, FDI inflows remained steady or increased in only three countries – France, Greece and Italy – in 2001. Similarly, on the outward side, several EU countries had undertaken exceptionally large cross-border M&A deals in 2000, resulting in high FDI outflows, compared to which 2001 outflows fell considerably. These countries include France and the United Kingdom and, on a smaller scale, Denmark, Finland and Sweden. At the same time, increased or steady outflows were also observed in some countries, such as Ireland, Italy and Portugal.

Countries of the EU rank high, well ahead of the United States, when FDI inflows are considered in relation to domestic investment (figure III.5), with Belgium and Luxembourg, Sweden, and Ireland leading

Figure III.5.   Developed countries: FDI flows as a percentage of gross fixed capital formation, top 10 countries, 1998-2000[a]
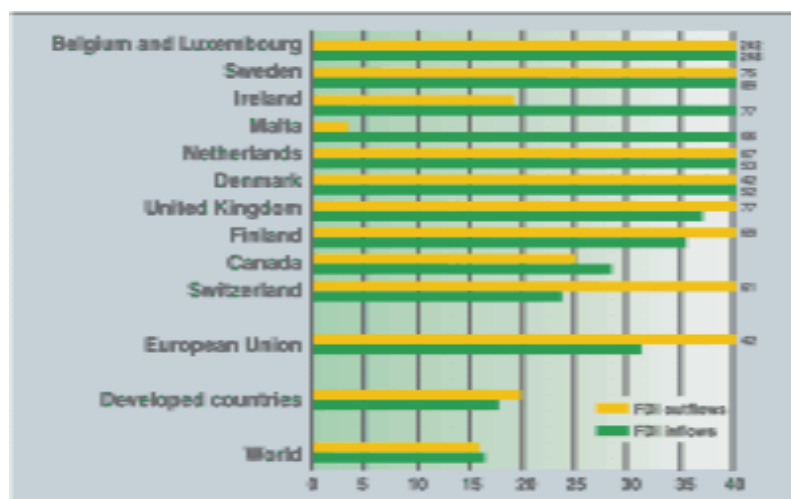
(Percentage)

Source: UNCTAD, FDI/TNC database.

[a]   Ranked on the basis of the magnitude of 1998-2000 FDI inflows as a percentage of gross fixed capital formation.

the list. They also generally rank high on UNCTAD's Transnationality Index (figure I.16) as well as on the UNCTAD indices of Inward FDI Performance and Potential (figures II.2, II.3 and III.4), their investment performance broadly matching their potential, with above average performances by Belgium and Luxembourg, and Ireland. Nevertheless, there are a few "below-potential" economies, including Austria and Italy, which, like Iceland, the United States and Japan, combine a relatively low ranking in FDI performance with a relatively high ranking in FDI potential. The asymmetry in these cases might be partly due to policy or investment-facilitation-related factors or short-term factors specific to the period covered by the indices. Germany, the United Kingdom and France, in that order, are the most favoured investment locations for the next three years, according to the survey on corporate investment strategies cited earlier (UNCTAD, 2001a).

The five largest home and host economies for FDI to and from the countries of the EU (including intra-EU FDI) were the same in 2001 as in 2000 – Belgium and Luxembourg, France, Germany, the Netherlands and the United Kingdom – although the order changed (figure III.1). Different factors contributed to the performance of individual countries.

FDI into *France* rose by 23 per cent, or $9.7 billion – the largest increase in flows to a developed country in 2001.[5] In *Greece*, FDI inflows increased by about 50 per cent, to $1.6 billion, mainly due to market-oriented FDI made through acquisitions by European and United States companies.[6] In *Italy,* inward flows increased by 11 per cent, partly due to the acquisition of Elettrogen by a Spanish investor group for $3.2 billion. Flows into *the Netherlands* remained steady. This country, given its openness, favourable investment environment, good infrastructure, and privileged location at the centre of the EU, has become an important FDI recipient in the region; it continues to attract European headquarters and European distribution centres of foreign TNCs.[7] *United Kingdom* inflows, on the other hand, dropped sharply as cross-border M&As by foreign firms fell.[8] Despite these developments, the country regained its position as the region's largest FDI recipient. Flows to *Belgium and Luxembourg* also declined substantially, in the light of revised 2000 figures; comparing data on FDI flows to and from *Belgium and Luxembourg* in 2001 with those in 2000 illustrates the difficulty of assigning values to FDI taking place through M&As.[9] The most significant decline in inflows (over 80 per cent) occurred in *Germany*,[10] where an increasing share of recent FDI has gone to the eastern part of Germany (box III.1). Inflows into Ireland declined by 60 per cent, reflecting the economic downturn that particularly affected United States electronics affiliates in the country (which represent a large share of FDI into Ireland).

The largest EU outward investor in 2001 was *France* (the second largest investor worldwide), but its outflows fell by over half compared to 2000.[11] *Belgium and Luxembourg* retained its position as the second largest outward investor from the region due to large cross-border M&As in insurance and communications industries (annex table A.I.2). *The Netherlands* was the third largest, with outflows falling by more than a third

Box III.1. Going east: FDI in Germany's new *Länder*

In the more than 10 years since reunification, the new *Länder* region in the eastern part of Germany has succeeded in attracting about 2,000 foreign companies from over 50 countries. In comparison with domestic firms, foreign affiliates in the region typically are more export oriented. They are also more likely to establish linkages with suppliers in the local economy and bring in significant technological know-how. In some cases, they are important employers, especially for the automobile industry around Leipzig, semiconductor manufacturing in Dresden and the chemical industry in the "Chemical Triangle" of Saxony-Anhalt (Belitz, Brenke and Fleischer, 2000; IIC 2001b; Dickman and Ritter, 2002). FDI in the region, mainly in natural-resource-based manufacturing activities, and chemicals and machinery, accounted for about 4 per cent of the total FDI stock in Germany in 1999 (box figure III.1.1).[a] A recent survey by the American Chamber of Commerce underlined the attractiveness of the region.[b]

The factors driving these developments include a long industrial tradition and availability of a skilled labour force in certain regions, as well as market access (not only to the regional market, but also to the western part of Germany and CEE), cost advantages and investment opportunities arising from privatization (Belitz, Brenke and Fleischer, 2000). The majority of privatization-related acquisitions were undertaken by investors from the western part of Germany. Only about 6 per cent of privatized companies during 1991-1994 were acquired by foreign companies, and their share in total investment and employment was estimated at 10 per cent. In the second half of the 1990s, the involvement of foreign investors might have increased slightly, as they acquired projects that had failed under investors from the western part of Germany.

Box figure III.1.1. Distribution of inward FDI stock in Germany' new *Länder*,[a] by region, 1991-1999
(Billions of dollars and percentage)

Source: UNCTAD, based on Deutsche Bundesbank, unpublished data.

[a] Not including East Berlin.

Recently, factors such as more flexibility in labour-market negotiations (as compared to western Germany) and emerging industrial clusters have become important. Government assistance also plays a role. Incentives related to transfer payments for the post-reunification structural adjustment of the eastern part of Germany are available to both domestic and foreign investors. During 1991-1999, the share of grants in total investment was about 30 per cent, for both domestic and foreign investments (IIC, 2001a). However, certain incentives for enterprises operating in the region have to be phased out by 2004 (and by 2003 for in the case of investments in certain industries, such as automobiles), following a decision by EU competition authorities.[c]

Source: UNCTAD, based on data and information from the Deutsche Bundesbank; the New German Länder Industrial Investment Council (www.iic.de) and the five regional economic promotion agencies.

[a] Data on FDI in the new *Länder* have been compiled by the Deutsche Bundesbank since July 1991. Data on East Berlin are included in the figures for the western part of Germany.

[b] Of the 1,200 United States companies that responded to a survey (including the 50 largest United States investors in Germany), 80 per cent considered the new *Länder* a feasible investment location, and over 33 per cent thought that this region had special advantages for foreign investors. While proximity to CEE markets was cited as part of the attractiveness of the new *Länder,* more flexible labour markets and regulatory systems as well as advantageous wage levels, compared with other parts of Germany, were also considered important (IIC, 2001b).

[c] *Neue Züricher Zeitung,* "EU Gelder für Ostdeutschland werden erst 2004 reduziert", 12 February 2002.

and the United States replacing the EU as the main destination. *Germany* came fourth; its outflows remained almost steady. Again, its major destination was the United States, led by the acquisition of VoiceStream Wireless by Deutsche Telekom. The largest decline in outflows from the EU, in both absolute and relative terms, was recorded by the *United Kingdom*,[12] which ranked fifth among EU countries in outward FDI (figure III.1). Outflows from *Spain* almost halved, as investors cut back in Latin America, despite large acquisitions by Telefónica.[13] The crisis in Argentina resulted in heavy losses for some Spanish firms. Contrary to this trend, outflows from Italy increased by 75 per cent from a relatively low level, partly as the country had participated only modestly in cross-border M&As during the 1990s.[14]

b. Other Western Europe

The rest of Western Europe followed similar patterns. FDI inflows ($13 billion) and outflows ($15 billion) fell in 2001. Countries under this grouping, taken together, rank higher than EU countries in FDI potential, although this is not matched by their FDI performance, according to the UNCTAD indices (table II.1).

FDI flows into *Switzerland* declined by almost 40 per cent, after the surge in 2000 led by two acquisitions (Alusuisse Lonza Group by Alcan Aluminium of Canada, and Cablecom Holding by the United States firm, NTL, for $4.8 billion and $3.7 billion, respectively). Increased inflows from the United States, the largest investor in Switzerland since 1986, and stable FDI from EU countries, together accounted for more than two-thirds of the inflows during 1996-2000, mainly in finance and insurance. FDI outflows from Switzerland declined even more: by 60 per cent. Most outward FDI took the form of M&As. Examples include the acquisition of Ralston Purina (United States) by Nestlé and Lincoln Re (United States) by Swiss Reinsurance. Pharmaceutical TNCs and finance and insurance companies have also become strong investors abroad,

accounting for about half the outflows during 1996-2000. Most of the expansion has been in CEE, Latin America and the United States – a shift away from the EU destinations that traditionally accounted for more than half of total outward FDI. FDI inflows into *Norway* continued their declining trend, falling by half in 2001. FDI in natural-resource-related activities accounted for the largest share of inflows. Outflows also declined, and became negative (annex table B.2). *Iceland* has recently attracted North American TNCs, which, perhaps, consider the country as a stepping stone into the European market.[15] Furthermore, the country is increasingly investing abroad through cross-border M&As (*WIR01*), although at modest levels compared to other developed countries.

3. Japan

Japan's domestic investment fell in 2001,[16] but its investment abroad grew by 21 per cent (to $38 billion) and is expected to keep growing. According to a survey of manufacturing TNCs by the Japan Bank for International Cooperation in 2001 (JBIC, 2002), 72 per cent of respondents planned to increase their outward investment over the next three years, compared to 21 per cent in 1999 and 55 per cent in 2000 (figure III.6).

Figure III.6.   Planned FDI by Japanese manufacturing TNCs over the next three years, 1995-2001 surveys [a]
(Percentage)
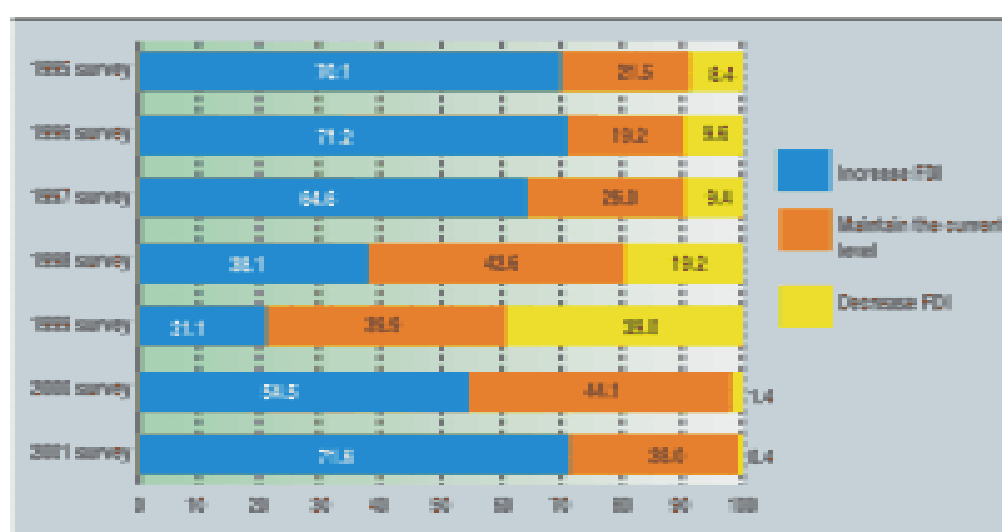
Source: Japan Bank for International Cooperation (JBIC), 2000 and 2002.

[a]   Fiscal year.

Note: Based on 422 respondent firms for the 1995 survey, 432 for the 1996 survey, 445 for the 1997 survey, 455 for the 1998 survey, 472 for the 1999 survey, 469 for the 2000 survey and 501 for the 2001 survey.

Outflows were fairly diversified by destination. For the first time, the largest recipient, with $13 billion, was the United Kingdom, followed by the United States.[17] FDI outflows doubled in the former and halved in the latter. These two countries alone accounted for 52 per cent of the total FDI outflows in 2001. More than half of Japanese investment in the United Kingdom in 2001 was in financial and insurance services. Service investments dominated Japanese FDI in both countries, accounting for more than one-third of the total.[18]

In other regions, however, manufacturing continued to dominate Japanese FDI.

Investment in developing Asia remained steady, as production, particularly in electrical and electronics industries, was relocated in response to cost pressures. The rising share of East and South-East Asia (one fifth of total Japanese FDI in 2001) reflected the growing role of China, which took nearly 30 per cent of Japanese investment in the region. Other Asian countries, particularly members of the Association of South-East Asian Nations (ASEAN), received less, causing concern in ASEAN (box III.2). FDI in Latin America also declined, while it continued to remain marginal in Africa and West Asia.

Box III.2. Is China more attractive to Japanese investors than ASEAN?

The Japanese investment gap between China and the ASEAN-4 (Indonesia, Malaysia, the Philippines and Thailand) has narrowed since 1999 ($2.7 billion and $2.9 billion in 2001, respectively) (box figure III.2.1). Even before

Box figure III.2.1. Japanese FDI outflows to ASEAN-4 and China, 1995-2001
(Billions of dollars)
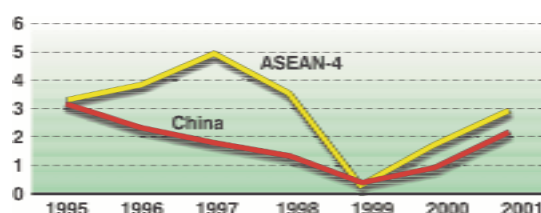
Source: UNCTAD, FDI/TNC database.

its accession to the WTO, China had become the most attractive location for Japanese TNCs. In a survey of planned FDI in the next three years by Japanese manufacturing TNCs (JBIC, 2002), China emerged as the leading destination by far. The

ASEAN-4 ranked at some distance below China, though all, except for the Philippines, remained among the top 10 destinations (box table III.2.1).

Japan accounted for 28 per cent of the FDI stock in Thailand (1999), 22 per cent in Malaysia (1997) and 20 per cent in Indonesia (1997). These countries are therefore eyeing the increasing flows to China with some apprehension. Surveys reinforce these concerns. Some 57 per cent of Japanese manufacturing TNCs find China more attractive than the ASEAN-4.[a] A survey by JETRO in October 2001 suggested that one-fifth of Japanese TNCs planned to relocate production sites from Japan and other countries to China because of its accession to the WTO (box figure III.2.2). At the same time, however, 99 per cent of Japanese TNCs with investments in the ASEAN countries said they would not relocate to China (JETRO, 2002). This does not, of course, mean that their production in China will not expand faster than in ASEAN.

Box table III.2.1. The 10 most promising destinations for manufacturing FDI by Japanese TNCs over the next three years,[a] 1995-2001 surveys [b]

(Per cent)

Rank	1996 survey	Ratio	1997 survey	Ratio	1998 survey	Ratio	1999 survey	Ratio	2000 survey	Ratio	2001 survey	Ratio
1	China	68	China	64	China	55	China	55	China	65	China	82
2	Thailand	36	United States	36	United States	41	United States	39	United States	41	United States	32
3	Indonesia	34	Indonesia	28	Thailand	23	Thailand	27	Thailand	24	Thailand	25
4	United States	32	Thailand	25	Indonesia	16	India	15	Indonesia	15	Indonesia	14
5	Viet Nam	27	India	23	India	15	Indonesia	15	Malaysia	12	India	13
6	Malaysia	20	Viet Nam	19	Philippines	14	Viet Nam	11	Taiwan Province of China	11	Viet Nam	12
7	India	18	Philippines	14	Malaysia	14	Malaysia	9	India	10	Taiwan Province of China	11
8	Philippines	13	Malaysia	13	Viet Nam	14	Philippines	9	Viet Nam	9	Korea, Rep. of	8
9	Singapore	10	Brazil	8	Brazil	11	United Kingdom	9	Korea, Rep. of	9	Malaysia	8
10	United Kingdom and Taiwan Province of China	7	Taiwan Province of China	8	United Kingdom	10	Brazil	8	Philippines	8	Singapore	6

Source: JBIC, 2000 and 2002.

[a] The share of firms that consider the country as promising in total respondent firms (multiple responses).
[b] Fiscal year.
Note: ASEAN-4 and China are highlighted.

/...

Box III.2. Is China more attractive to Japanese investors than ASEAN? (concluded)

Box figure III.2.2. Planned relocation of production sites of Japanese TNCs to China as a result of China's accession to the WTO [a]
(Percentage of TNCs responding)

From	Distributive share [b]
Japan	67.5
Hong Kong, China	9.0
Taiwan Province of China	6.6
Republic of Korea	1.2
ASEAN (5)	7.8
Malaysia	3.0
Singapore	1.8
Indonesia	1.2
Philippines	1.2
Thailand	8.6
Other Asian countries	1.2
Mexico	1.2
United States	4.2
United Kingdom	1.2
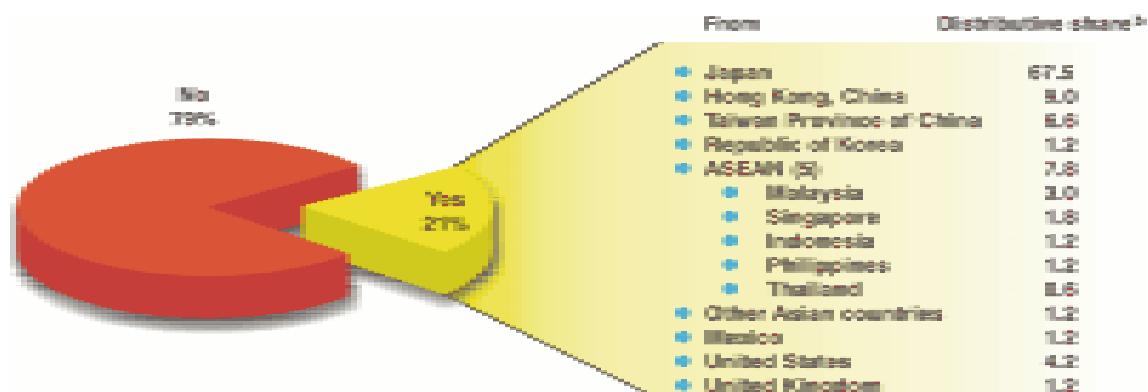
Source: JETRO, International Economic Research Division.
[a] Based on 645 responses among the 720 Japanese TNCs surveyed by JETRO in October 2001.
[b] Based on 136 out of the 645 responses (21.1 per cent) from TNCs planning to relocate their production to China. Multiple replies apply.

However, Japanese TNCs are concerned about the investment climate in China (box figure III.2.3), particularly about rules relating to establishment, the transparency of investment rules, and the tax system. While Malaysia and Thailand are better positioned in most aspects of the investment climate, they lag behind China in market growth, production costs and labour supply (box figure III.2.3). According to the JBIC survey, nearly twice as many Japanese manufacturing TNCs consider these economic attractions stronger in China as those who consider them stronger in ASEAN.

Box figure III.2.3. Investment climate of ASEAN-4 compared with China[a]
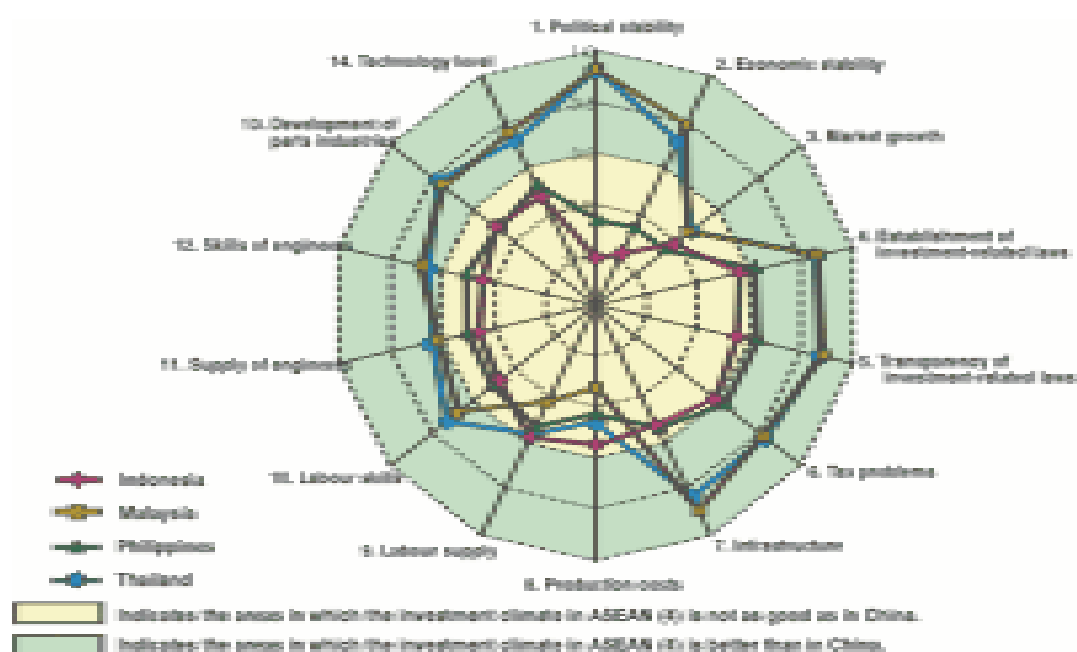
Source: UNCTAD, on the basis of data and figure provided by JETRO, International Economic Research Division.

[a] Japanese TNCs were asked to assess the investment climate of ASEAN (4) compared with that of China in each of the 14 areas according to the following scaling: 2 for much better; 1 for better; 0 for the same; -1 for worse; and -2 for much worse.
Note: Based on 340 responses for Indonesia, 335 for Malaysia, 317 for the Philippines and 386 for Thailand surveyed by JETRO in October 2001.

Source: UNCTAD.

[a] JBIC, 2000; 2002. On the basis of 469 respondent Japanese manufacturing TNCs.

Inward FDI in Japan declined for the second year in a row. By 2001, inflows ($6 billion) were half the peak reached in 1999.[19] While cross-border M&As fell, there were some large acquisitions in telecommunications and insurance.[20] Five global electronics contract manufacturers[21] also acquired plants (JETRO, 2002). According to both the UNCTAD/AFII/Andersen survey (UNCTAD, 2001a) and the MIGA survey (MIGA, 2002), prospects for FDI inflows to Japan are better than those for other developed countries such as Sweden and Ireland, both of which have shown dramatic improvements in the UNCTAD Inward FDI Performance Index (table II.1). Japan has also improved its own FDI performance over the past decade, but this remains much lower than its capacity to attract FDI as measured by the UNCTAD Inward FDI Potential Index (figure III.7).

In the light of Japan's position as a country with sustained surpluses in its balance of trade, increased FDI from Japan since the mid-1980s has drawn attention to the relationship between the country's trade and international production. Since 1993, the net effects of outward FDI on Japan's trade balance in the manufacturing sector are estimated to be negative (Japan, Institute for International Trade and Investment, 2000). However, the activities of Japanese manufacturing affiliates abroad rarely have negative effects on Japan's manufactured exports (Lipsey and Ramstetter, 2001). Indeed, of the top 30 exporters that accounted for half of Japanese total exports in 2001, only four (NEC, Mazda Motors, Isuzu Motors and Nippon Steel) experienced a decline in exports between 1996 and 2001 (table III.1).

The negative trade balance effects of outward FDI are apparently attributable to imports. Japan's imports from its affiliates abroad are increasing faster than exports by Japanese parent firms. In fact, the share of "reverse imports" in Japanese imports rose from 4 per cent a decade ago to 15 per cent in 1999 (figure III.8). In comparison, United States imports from overseas affiliates of its TNCs accounted for about one-fifth of total imports in 1998, a share that has remained the same since 1990. Simultaneously, the composition of Japanese imports is changing rapidly. Machinery and equipment, in particular, electrical and electronics machinery, now account for 31 per cent – 14 percentage points higher than a decade ago. This implies that a horizontal division of labour is taking place within TNCs in this industry. Japan provides an interesting case of outward FDI changing the structure of trade – both exports and imports – of host and home countries.

Figure III.7. The UNCTAD Inward FDI Performance Index and Inward FDI Potential Index for "other" developed countries, 1988-1990 and 1998-2000
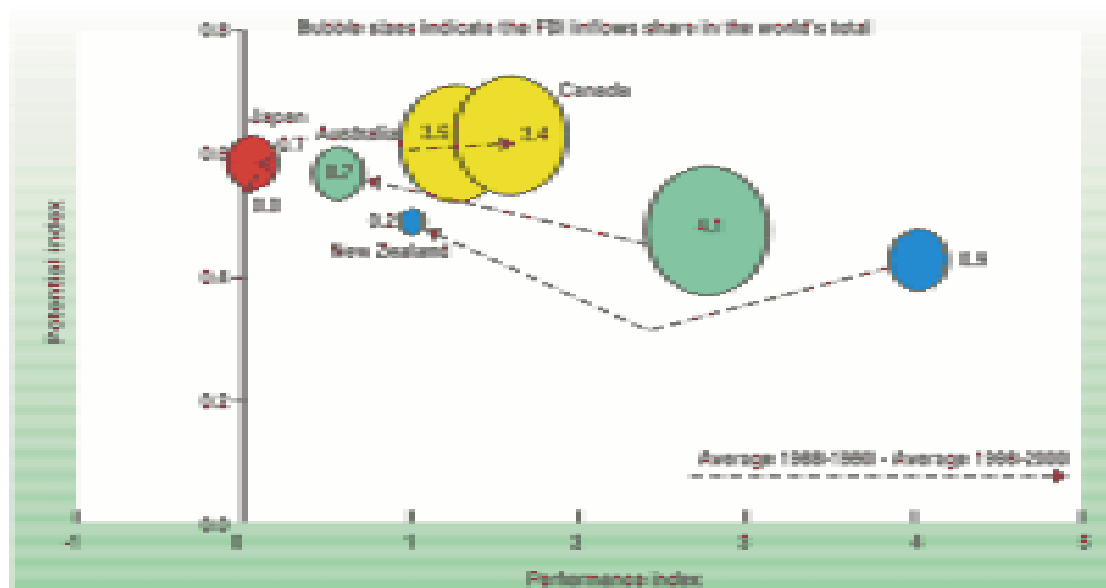
Source: UNCTAD, based on table II.1 and annex table B.1.

Table III.1. Exports, FDI and international production of 30 largest Japanese firms, 1996 and 2001
(Billions of yen)

TNCs [a]	1996				2001			
	Sales [b]	Exports from parent firms	FDI	International production	Sales [b]	Exports from parent firms	FDI	International production
Toyota Motor Corp.	10 719	2 829	331	2 037	13 424	4 136	718	7 652
Sony Corp.	4 593	1 251	1 209	919	7 315	1 961	..	1 463
Honda Motor Co., Ltd.	4 252	1 275	225	..	6 464	1 773	..	..
Matsushita Electric Industrial Co., Ltd.	6 795	1 445	..	951	7 682	1 529	..	2 243
Nissan Motor Co., Ltd. [c]	6 039	1 310	570	2 355	6 090	1 522	905	2 704
Canon Inc.	2 558	971	140	691	2 908	1 367	..	872
Toshiba Corp.	5 120	1 147	..	..	5 951	1 264	246	1 726
Mitsubishi Motors Corporation	3 537	989	..	..	3 277	1 133	..	..
Mitsubishi Heavy Industries, Ltd.	3 017	739	..	..	3 045	1 050	48	241
Hitachi, Ltd.	8 124	983	115	1 995	8 417	1 047	174	..
NEC Corporation	4 397	690	..	..	5 410	699	489	..
Mazda Motor Corp. [c]	1 843	709	125	602	2 016	683	155	1 125
Mitsubishi Electric Corp.	3 511	636	87	421	4 129	674	129	702
Suzuki Motor Corp. [c]	1 381	483	79	186	1 600	629	117	..
Fujitsu Ltd.	3 762	351	536	752	5 484	614	..	..
Seiko Epson Corp.	511	350	..	..	1 341	610	..	..
Sharp Corporation	1 651	584	..	..	2 013	596	..	..
Isuzu Motors Ltd. [c]	1 682	602	44	84	1 569	488	82	88
Yamaha Motor Co., Ltd.	733	292	74	..	884	448	..	613
Sanyo Electric Co., Ltd.	1 687	103	167	472	2 241	432	..	..
Nippon Steel Corp.	2 955	485	54	..	2 750	423	69	..
Fuji Heavy Industries Ltd.	1 077	165	86	346	1 312	395	..	..
Kawasaki Heavy Industries Ltd.	1 086	293	..	..	1 060	365	..	..
Victor Co. of Japan, Ltd.	807	281	..	..	934	351	..	..
Fuji Photo Film Co., Ltd.	1 085	238	91	..	1 440	336	..	785
Denso Corp.	1 423	229	..	..	2 015	318	..	..
Japan IBM [c]	1 497	289	..	..	1 585	312	..	..
Ricoh Co., Ltd.	1 113	169	..	223	1 538	300	..	..
Nikon Corporation	333	132	17	121	484	270	..	..
Murata Manufacturing Co., Ltd.	322	98	11	..	584	266	14	99

Source: UNCTAD, based on World Scope CD-ROM (for sales), Toyo Keizai, 1996 and 2001 (for FDI and international production), and *Nikkei Sangyo Shimbun*, 27 December 2001 (for exports).

[a] Ranked according to export size.
[b] Consolidated.
[c] Foreign affiliate.

Figure III.8. Japan's imports from Japanese foreign affiliates, 1987-1999
(Billions of yen and percentage)
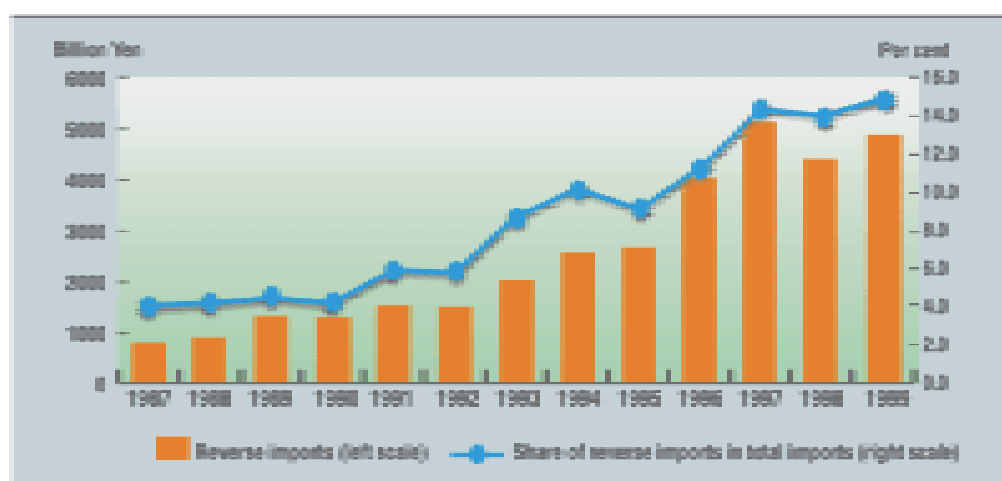
Source: Japan, Ministry of Economy, Trade and Industry (METI), 2001a, p. 60.

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4. Other developed countries

Among other developed countries, Australia was less affected by the recession and other events in the United States, as its economy is more closely linked to Asia and the Pacific than to North America. FDI outflows from Australia doubled in 2001, reaching $11 billion, and reflecting the acquisition by BHP of Billiton (United Kingdom) for $11.5 billion[22] (annex table A.I.2). Manufacturing accounted for two-thirds of outward FDI, compared to about 50 per cent a decade earlier. Australia has been an important investor in the Asia-Pacific region, mainly in Japan, New Zealand, South-East Asia and the Pacific Island economies. The largest Australian affiliates are located in that region, predominantly in resource-based manufacturing. FDI flows into Australia showed a large fall, down to $4 billion, compared to a record high of $12 billion the previous year. Mining continued to decline in importance for inward FDI, while services continued to rise. The main investors in Australia were European firms, though the United States had accounted for an equal share during the period 1997-1999. Investors from the Pacific region contributed a significant but falling share.

FDI flows declined for *New Zealand*: inflows almost halved, from $3.2 billion to $1.7 billion, and outflows decreased by 70 per cent, from $0.9 billion to $0.3 billion. Inflows were mainly in resource-based industries, with Australia the main investor, followed by the United States, the United Kingdom and Japan. Australia was the main destination for outflows from New Zealand, traditionally accounting for about half of the latter's outward FDI and recently increasing this share to almost three-quarters, ahead of the United Kingdom, the United States and Japan.

Since *Canada's* main economic partner is the United States, the slowdown there affected Canadian FDI in 2001. Inflows fell by 60 per cent[23] and outflows by 25 per cent compared to the previous year, which was characterized by unprecedented FDI related to relatively large M&As (figure III.1). Although diminished in number and in volume, cross-border M&As in Canada continued to play an important role as a mode of entry for TNCs. Large M&As, mainly by United States (in utilities) and United Kingdom firms, drove inward FDI. Most outward FDI went to the United States, but investments in Mexico also rose rapidly (from low levels), reflecting the integrating effects of NAFTA. The services sector is gaining in importance over resource-based activities in Canadian outflows.

*   *   *

Data for early 2002 suggest that FDI to and from the developed countries will remain low (see chapter I). Cross-border M&As – the preferred mode of entry for TNCs (UNCTAD, 2001a; MIGA 2002) – are expected to remain low. However, as economic growth picks up, flows are likely to recover.

B. Developing countries

1. Africa

FDI flows to Africa (including South Africa) rose from $9 billion in 2000 to more than $17 billion in 2001, following relatively low levels in previous years (figure III.9). While this increase looks impressive at first sight, it masks the fact that, for most African countries, FDI flows remained at more or less the same level as in 2000. The increase by $8 billion is largely due to a few large FDI projects – notably in South Africa and Morocco (figure III.10) – and the way they are reflected in FDI statistics. Around 80 per cent of the growth is explained by a

Figure III.9. FDI inflows and their share in gross fixed capital formation in Africa, 1990-2001
(Billions of dollars and percentage)
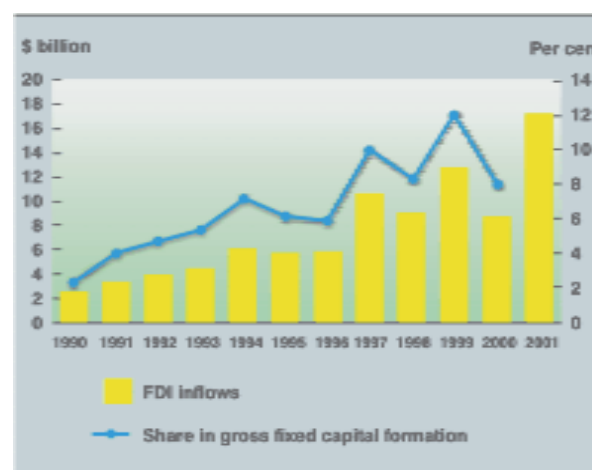
Source: UNCTAD, FDI/TNC database.

large increase in FDI flows into South Africa, the result of an unbundling of cross-share holdings involving London-listed Anglo American and De Beers of South Africa; it is recorded as an increase in FDI inflows because Anglo American purchased De Beers shares by paying the mainly South African-based owners in Anglo American shares.[24] The other main project responsible for the increase was the sale of a 35-per-cent stake of Maroc-Telecom to a foreign investor, boosting inflows into Morocco to almost $2.7 billion in 2001. Thus the higher FDI inflow figures for 2001 should not be mistaken for a fundamental change in the trend. Inflows stagnated for many other countries, though at levels higher than during the early 1990s, before the policy environment for FDI began to improve.

As a result of these exceptional transactions, the share of Africa in global FDI inflows increased from 1 per cent in 2000 to 2 per cent in 2001, but it remains small. If economic size is taken into account, however, there is little difference between Africa and other developing regions as regards inward FDI. In fact, some African countries receive more FDI relative to GDP than the average developing country. Moreover, for 22 of the 53 African countries, the ratio

of FDI inflows to gross fixed capital formation in 1998-2000 was higher than for developing countries as a whole (figure III.11 and annex table B.5). Most of these 22 countries are LDCs with relatively small economies, such as Cape Verde, Djibouti, Lesotho and Togo.

There were some interesting trends in FDI inflows within the continent:

- The year 2001 saw a number of remarkable developments regarding FDI flows to *North Africa*: they increased by 83 per cent to $5.3 billion – an unprecedented figure for this subregion. However, as with the developments in Africa in general, the large increase masks diverging trends among individual North African countries. The lion's share of the increase was accounted for by the jump in FDI flows to *Morocco*, from $200 million in 2000 to almost $2.7 billion in 2001. As already mentioned, this increase was due to the sale of a 35 per cent stake in the local telecom operator, Maroc-Telecom, to France's Vivendi Universal as part of that latter company's M&A-based global expansion strategy over the past few years (chapter IV). FDI flows to *Algeria* and *Sudan* also increased, on account of FDI in the gas and petroleum

Figure III.10. **Africa: FDI inflows, top 10 countries, 2000 and 2001**[a]
(Billions of dollars)

Source: UNCTAD, FDI/TNC database.

[a] Ranked on the basis of the magnitude of 2001 FDI inflows.

Figure III.11. **Africa: FDI flows as a percentage of gross fixed capital formation, top 10 countries, 1998-2000**[a]
(Percentage)

Source: UNCTAD, FDI/TNC database.

[a] Ranked on the basis of the magnitude of 1998-2000 FDI inflows as a percentage of gross fixed capital formation.

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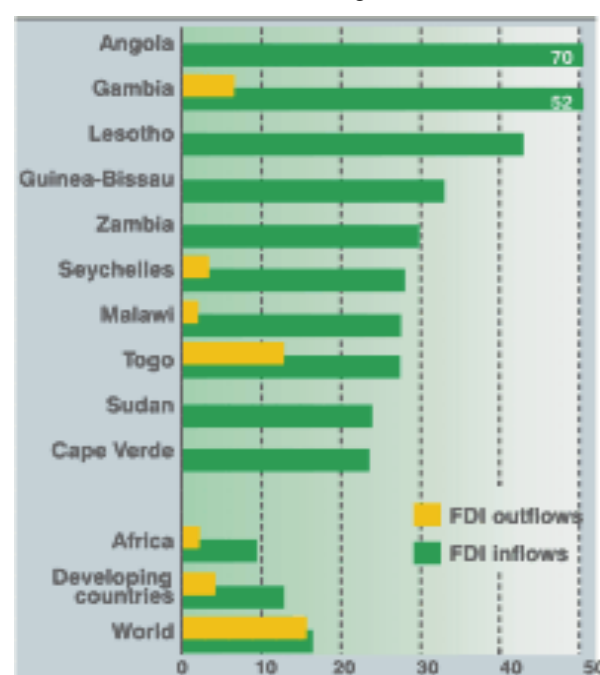
industries. Overall, the share of North Africa in total FDI flows to Africa declined slightly, from 33 per cent to 31 per cent, as the large increase in absolute flows to North Africa was more than offset by an even larger increase in FDI flows to sub-Saharan Africa.

- Flows to *sub-Saharan Africa* surpassed, for the first time ever, the mark of $10 billion, to reach $11.8 billion in 2001. As mentioned earlier, this was largely the result of the Anglo American-De Beers deal. Without that transaction, sub-Saharan Africa as a whole would show little change, as the increase in FDI flows to *South Africa* is almost identical to the increase in FDI flows to the subregion as a whole. There were slightly fewer countries that experienced an increase in FDI inflows (19) that year than those that incurred a decline (21). Behind South Africa, two oil-producing countries – *Angola* and *Nigeria* – ranked second and third in terms of absolute inflows. A considerable gap exists between these three countries (all of which received flows of more than $1 billion) and the other countries of the subregion. The group of the next largest FDI recipients – all of which received more than $200 million, led by *Côte d'Ivoire* with $257 million – also includes three LDCs: *Mozambique*, *Uganda* and *the United Republic of Tanzania*. These three countries have experienced steadily increasing inflows over the past few years, with Mozambique and the United Republic of Tanzania benefiting from their proximity to South Africa. More than two-thirds, or 69 per cent, of total FDI flows to Africa in 2001 were accounted for by sub-Saharan Africa.

- FDI inflows to the 34 African *LDCs* increased by some $600 million (or 16 per cent), to almost $4.2 billion in 2001, but only 19 of them registered an increase in 2001. For Africa as a whole, the growth in FDI inflows does not mean that all countries experienced an increase. Only half of the 34 LDCs registered an increase in 2001. Among these, three (Angola, Mozambique and Sudan) together accounted for the lion's share of the total increase for African LDCs. Angola, with $240 million (in petroleum-related FDI) registered by far the largest jump, and remained, with more than $1.1 billion, the largest FDI recipient among African LDCs. Overall,

the share of African LDCs in total FDI flows to the continent fell from more than 40 per cent to just a quarter, largely due to the above-mentioned developments in South Africa; excluding that particular transaction, *grosso modo,* FDI to LDCs was similar to that of non-LDC African countries.

The performance of African countries in attracting FDI, as measured by their rankings on UNCTAD's Inward FDI Performance Index, is mixed. Most of the 36 countries for which that Index could be calculated rank low on it for the period 1998-2000. There is only one African country, Angola, that made it to the top 20 in that period. Angola's ranking is largely due to its rich endowment of offshore petroleum which spurred massive FDI from 1996 onwards. On the other hand, it is also remarkable that only four of the bottom 20 rankings are occupied by African countries – Libyan Arab Jamahiriya, Niger, Rwanda and Sierra Leone. This suggests that, although absolute flows to many African countries remain minimal, in relative terms the countries perform better than the absolute figures would suggest. Moreover, half of the African countries included in the rankings improved their position on the list between 1988-1990 and 1998-2000. These countries are from all of the continent's subregions and at various levels of development, including more advanced countries such as South Africa and LDCs such as the Democratic Republic of the Congo and Uganda (figure III.12).

Turning to UNCTAD's FDI Potential Index, only 7 of the 20 countries with an improved FDI Performance Index ranking saw a parallel increase in their potential: Ethiopia, Mali, Mozambique, Namibia, Sudan, Tunisia and Uganda. All of them have had relatively high GDP growth rates for the period 1990-2000, the minimum being 3.8 per cent. This suggests that improved economic performance attracted more FDI. Also, the share of LDCs in the group of African countries with improved FDI Performance Index values is remarkable: they account for 11 of the 20 countries. Among them are a number of countries that are well-known for their sustained efforts towards greater political and economic stability, such as Mali, Mozambique, the United Republic of Tanzania and Uganda. Others, such as Angola, Cameroon or Congo, might have improved because of renewed possibilities

Figure III.12. The UNCTAD Inward FDI Performance Index and Inward FDI Potential Index for selected countries in Africa, 1988-1990 and 1998-2000
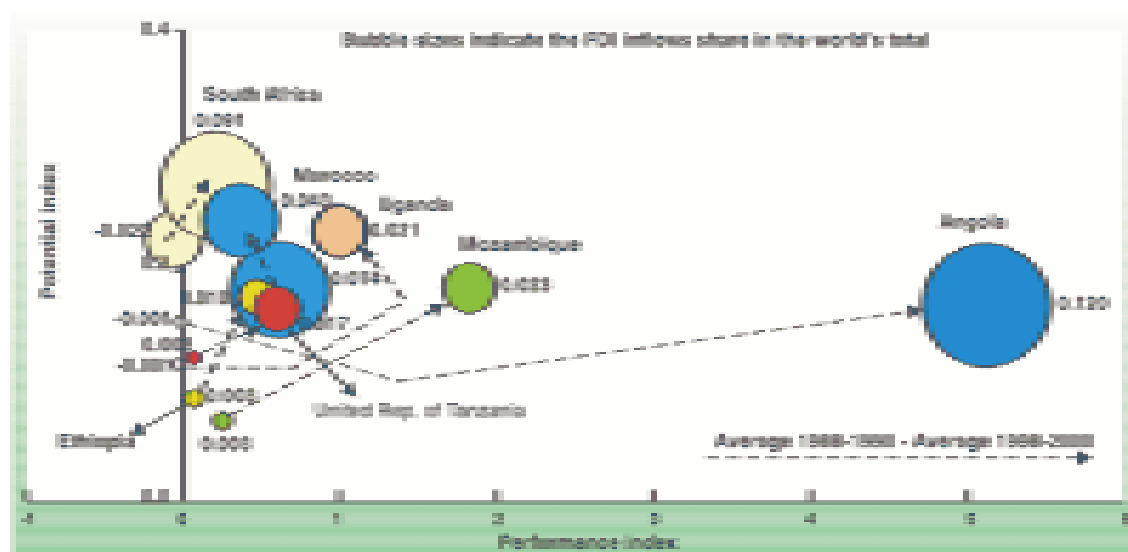
Source: UNCTAD, based on table II.1 and annex table B.1.

for exploiting their natural resource endowments. Moreover, the fact that a good half of the African countries on the list improved their position on the FDI Performance Index squares well with the fact that, since the beginning of the 1990s, FDI flows into Africa have been increasing gradually after a long period of stagnation.

Ranking by the Inward FDI Potential Index does not feature any African country among the top 20 countries, while 11 of the bottom 20 are from the continent. This is not surprising, given that most African countries have mediocre economic growth rates, insufficient infrastructure and a low level of education: all factors critical for obtaining high values on that Index. In general, African countries seem to perform better on the Performance Index than on the Potential Index, so that a fairly large number of them (9) fall into the group of above-potential economies and only one (Egypt) into that of below-potential economies, although the majority (22) rank low on both indices (table II.3).

Most of the FDI flows to Africa come from only a small number of home countries (table III.2), led by the United States, France and the United Kingdom. During the period 1996-2000, the United States alone accounted for more than 37 per cent of total flows from developed countries, France for 18 per cent and

the United Kingdom for 13 per cent. Germany and Portugal followed at some distance. Japan has been a relatively small investor (Fujita, 2001a).

Overall, the trend towards a more even distribution of the origins of FDI flows to Africa that seemed to emerge during the mid-1990s (UNCTAD, 1999a) came to a halt during the period 1996-2000. It should be noted, however, that for all but four of

Table III.2. Africa: accumulated FDI flows from major developed countries,[a] 1981-2000

(Millions of dollars)

Country	1981-1985	1986-1990	1991-1995	1996-2000
Australia	-13	-149	-33	-99
Austria	72	33	7	221
Belgium	99	40	-47	242
Canada	27	37	146	626
Denmark	19	24	1	340
Finland	-	38	3	8
France	1 239	1 001	2 066	4 362
Germany	504	332	402	2 475
Italy	455	217	213	678
Japan	350	1 143	201	340
Netherlands	94	153	297	816
New Zealand	-	-	-	-
Norway	99	12	145	-148
Portugal	-	-	96	1 560
Spain	-	-	50	476
Sweden	177	48	4	197
Switzerland	-6	73	452	69
United Kingdom	882	2 193	2 376	3 269
United States	1 866	404	278	9 249

Source: UNCTAD, based on OECD, unpublished data.

[a] The countries listed in the table are the members of the OECD's Development Assistance (DAC) Committee.

19 major developed countries, accumulated FDI flows to Africa were higher in the second half of the 1990s than in the first half. Only two home countries, Australia and Norway, recorded net divestment over the five-year period, 1996-2000.

The bouncing back of the United States to the top position among sources for FDI in Africa is, perhaps, the most remarkable development during 1996-2000. Its FDI flows increased in both North and sub-Saharan Africa. While flows to North Africa recovered from two periods of substantial divestments (-$581 million in the period 1986-1990, and -$454 million in 1991-1996) to more than $3.8 billion in 1996-2000, flows to sub-Saharan Africa recovered from a longer period of relatively low levels ($986 million for the period 1986-1990 and only $106 million in 1991-1996) to almost $5 billion in accumulated flows during 1996-2000.[25] TNCs from the United States were very active in South Africa, often buying back the affiliates they had sold when pulling out of the country during the apartheid era. At the same time, FDI from the United States also went to other sub-Saharan countries. For example, United States TNCs were at the forefront of exploring newly-found oil and natural gas reserves in Angola and along the western coastline of the continent.

Of the developed countries, Portugal became the second largest investor in North Africa after the United States during the period 1996-2000, while France, traditionally the most important source of FDI for that subregion, fell back to third place, despite an increase in flows to $605 million compared to $492 million in the period 1991-1995. However, Portugal's rise is due to one exceptional year (2000) when its outflows amounted to more than $1 billion. Geographic proximity might play a role in Spain being the fourth largest investor in North Africa, while it ranks only tenth for flows to sub-Saharan Africa. However, FDI flows from Spain to North Africa grew more slowly than they did to southern Africa. Spain ranks just after the United Kingdom, from which flows increased significantly in 1996-2000 ($506 million), compared to previous periods, when flows were even negative at times. Significant investments from the United Kingdom in Egypt, including in the retail sector, were among the main drivers behind this development.

FDI flows from almost all EU countries – including France, Germany, the Netherlands, Portugal, Spain, Sweden and the United Kingdom – to sub-Saharan Africa increased from $1 billion per annum in 1991-1995, to $2 billion per annum in 1996-2000. Flows from the same countries to North Africa showed a similar picture. The combined flows from the EU countries to North Africa rose from $814 million to $2.6 billion between the two periods. This trend may have been influenced by the fact that, during the 1990s, North African countries concluded agreements with the EU on the creation of a free trade area. A striking difference between North Africa and sub-Saharan Africa is that countries such as Germany and the Netherlands – major investors in southern Africa – accounted for relatively small amounts of FDI in North Africa during 1996-2000. Overall, however, the home-country distribution of FDI flows to both North and sub-Saharan Africa was somewhat similar during 1996-2000.

Data for FDI flows to Africa from major home countries suggest that the primary sector has remained the most important over the past decade, with a share of 55 per cent in the accumulated FDI to Africa for the period 1996-2000 (table III.3).[26] Oil and petroleum are largely responsible for this performance. Services industries have gained in importance in recent years, although their share (25 per cent) in total FDI flows is much lower than that of the primary sector. In the past two years, however, FDI flows into services were higher or as high as those into the primary sector, especially on account of banking and finance, transportation and

Table III.3. FDI outflows from major investors[a] to Africa, by sector, 1996-2000
(Millions of dollars and per cent)

Sector	1996	1997	1998	1999	2000	Total 1996-2000	Distribution share
Primary sector	3 133	4 369	5 056	2 726	2 029	17 314	54.6
Secondary sector	1 085	1 114	1 233	1 812	1 297	6 541	20.6
Tertiary sector	624	2 155	52	3 108	1 931	7 871	24.8
Total	4 842	7 639	6 341	7 647	5 257	31 726	100.0

Source: UNCTAD, based on data obtained from various central banks and ministries.

[a] France, Germany, Japan, the Netherlands, Switzerland, the United Kingdom and the United States only.

trading. The first two industries benefited, at least partially, from privatization processes as well as from a few cross-border M&As in a small number of African countries. Transportation FDI includes flows into Liberia in connection with flag-of-convenience shipping, which, statistically, is counted as FDI but, *de facto,* has little do with it. As for manufacturing, it was the least important sector for FDI over the past decade. Food products as well as steel and metal products accounted for the largest share of FDI flows

into this sector. FDI flows into electrical and electronic equipment, textiles or motor vehicles – all industries that play a prominent role in attracting FDI in other developing regions – were insignificant. It should be noted that even if the amounts of FDI inflows into manufacturing and service industries were often limited, they nonetheless played an important role in some countries in the development of local industries, as in the case, for example, of Botswana (box III.3).

Box III.3. Botswana: the role of FDI in economic restructuring

Botswana stands out as the sole graduate from the category of LDCs, becoming a middle-income country within one generation. Its progress was spearheaded by the discovery of rich deposits of diamonds in 1967. Unlike other developing countries, Botswana has been open to FDI since it gained independence in 1966. It decided to exploit diamonds in a joint venture with foreign investors and avoided nationalizations. FDI, and the Government's handling of the fiscal, social and economic pressures of transformation, were key factors in Botswana's economic success. Somewhat unusually for a developing country, it has managed to create a long-term macroeconomic environment conducive to a sound investment climate.

Botswana's early opening to FDI was rewarded with large inflows in the 1970s. A record annual inflow of $127 million was registered in 1979. Between 1975 and 2000, flows remained quite stable, with five-year annual averages hovering between $50 million (during 1981-1985) and $70 million (in 1986-1990 and 1996-2000), except for the 1991-1995 period when they were negative. Very large negative flows – of $287 million – occurred in 1993 because of losses and subsequent changes in the ownership of a copper-nickel mine. Until the 1990s, Botswana received a disproportionately larger amount of FDI than the other 13 members of the Southern African Development Community (SADC) regional grouping to which it belongs, or than the LDCs as a group (to which it belonged at independence). During the 1990s Botswana lost its position vis-à-vis these countries as they opened up to FDI, among others, through privatization, which Botswana has not yet implemented.

On an annual basis, FDI inflows were lumpy, with peaks determined by investments in three diamond mines and copper and nickel mines. More recently, however, with no shortage of local savings, liberalization of the capital account and a further improvement of Botswana's creditworthiness, the link between large FDI projects and FDI inflows has become weaker, as

investors have a choice of financing options typically unavailable in many developing countries. A major $400 million expansion of the Orapa diamond mine during 1998-2000 did not prevent a fall in FDI inflows from $96 million in 1998 to $30 million in 2000.

Foreign firms came to play a significant role in many industries early in Botswana's development effort. In partnership with the Government, they developed the mining sector. FDI also contributed to the development of the manufacturing sector, although this is small (4-5 per cent of GDP). In the services sector, commercial banks have always been foreign-controlled. Other service industries with a strong foreign presence include insurance and business services. Foreign firms are prominent in road transport, wholesale trading and construction. In tourism, of a total of 331 enterprises licensed and operating between March 1997 and February 2001, more than two-thirds were foreign, half of them being joint ventures with local partners.[a] By contrast, agriculture, beef-processing and infrastructure services have always been the domain of local, mainly State-owned firms. Such firms are also visible in financial services. On the other hand, the local private sector has always been rather weak, especially in manufacturing. This poses one of the most formidable challenges to Botswana's development, which has so far been driven mainly by large State-owned and foreign firms.

In terms of qualitative impact, early inflows of FDI strongly boosted export receipts and government revenues which were invested wisely and created the foundation for long-term growth. Concentrated in mining, FDI has had little direct impact on employment. Linkages with the local economy appear weak, one of the reasons being a dearth of local businesses. More importantly, FDI has provided the resources critical for the first phase of the diversification of Botswana's economy, from purely agriculture to include mining. It has also contributed to the second phase of diversification, "beyond diamonds", but this remains an unfinished business and a continuing challenge to the Government.

Source: UNCTAD, forthcoming a.

[a]   Information from the Department of Tourism of Botswana.

Obviously, the industrial pattern of FDI flows differs among individual home countries. In the case of the United States, for example, oil and petroleum have accounted for more than 60 per cent of all FDI outflows to Africa since 1996. In the case of the Netherlands, most FDI went into the primary sector, while most FDI from other home countries such as Germany, Japan and the United Kingdom, went into services. TNCs from the United Kingdom were particularly active in banking and finance as well as in trading, and German firms concentrated on construction and real estate. Japanese FDI went mainly into transportation, most of which had to do with flag-of-convenience shipping.

The difference in the industrial composition of FDI flows into Africa is largely explained by the different industrial structures of the home countries. The United States, for example, hosts a large number of oil and petroleum companies, while the large banking-related outflows from the United Kingdom to Africa are due to that country's strong financial industry. [27]

Future FDI is also likely to focus on a few countries. Surveys by UNCTAD/AFII/ Andersen (UNCTAD, 2001a) and MIGA (MIGA, 2002) suggest that South Africa will remain the main destination, followed quite far behind by Egypt.[28] The former survey also revealed that TNCs prefer to tap African markets by exporting rather than investing. Only about 20 per cent of the respondents saw greenfield FDI as an option, and only 12 per cent considered acquiring an African firm. Both modes of FDI accounted for considerably higher shares in other developing regions. Recent initiatives to grant African manufactures better access to developed-country markets may strengthen manufacturing FDI. The African Growth and Opportunity Act (AGOA) initiative by the United States, and the European Union's "Everything-but-Arms" programme are expected to help in this respect (see Part Three).

AGOA has also had an impact on intra-African FDI and trade. Mauritian garment firms are buying more South African textiles, and South African firms are investing in neighbouring countries. For example, the Transvaal Clothing Corporation (TRALCO) has announced plans to construct a plant in Swaziland (box III.4).[29]

Box III.4. New trade and investment initiatives in sub-Saharan Africa in response to AGOA

According to the 2001 and 2002 Reports of the President of the United States on the Implementation of AGOA (USTR, 2001b, 2002), the adoption of this Act in May 2000 has started to generate new trade and investment responses in a number of beneficiary countries. Reportedly, these have included the following (although it is difficult to ascertain whether they would have taken place in any event):

- In Cape Verde, a fish-processing company was acquired by a United States company, and two new investments in the garment industry were announced by Portuguese companies.
- In Ghana, a United States company is investing in a tuna-processing plant.
- In Kenya, the Government has so far announced new investments, and expansions of existing investments, in apparel production, amounting to $13 million and providing over 20,000 new jobs.
- In Malawi, AGOA has led to FDI in two garment factories (by a European company and a Taiwanese company) and the creation of at least 4,350 jobs. Total employment could increase eventually by 10,000, for a total of 20,000 workers.

- In Mauritius, FDI worth $78 million has already taken place. In the near future, there are prospects of Asian and European companies building cotton-yarn spinning mills. In addition, there are reports of substantial new orders from major United States retailers.
- In Senegal, a leading Senegalese apparel and textile company plans to enter into partnership with a United States textile manufacturer and a Malaysian firm to export to the United States, with the potential creation of 1,000 jobs.
- In South Africa, the establishment of a new $100 million clothing facility expected to employ 13,000 workers has been announced by a Malaysian company. South African companies are also receiving new orders from a variety of United States clothing companies and retailers.
- In Namibia, a new investment is planned in the apparel and textile sector of more than $250 million, leading to 8,000 new jobs over the next five years and 18,000 jobs over the next 10 years.
- In the United Republic of Tanzania, reports indicate the expansion of a textile mill in partnership with a United States firm involving 1,000 jobs.

Source: USTR, 2001b, pp. 114-115 and USTR, 2002, pp. 30-31.

While these schemes to provide privileged access to United States and EU markets for African exports may stimulate FDI, a note of caution is in order. The effects of such access may be temporary and confined to activities like apparel, in which there are significant constraints on exports by other developing countries. FDI may flow to African countries to exploit their temporary privileges, despite high costs, and withdraw once the privileges end (or when the ending of the Multi-Fibre Arrangement makes them less important). It is thus vital to use the duration of the privileges to build up local skills, linkages and infrastructure in Africa and make the facilities fully competitive (for details, see Part Three).

Total *outflows* from the region stood at -$2.5 billion in 2001, compared with $1.4 billion in 2000. For the first time ever in the past 30 years, FDI flows from Africa were negative. This means that, on a net basis, Africans sold more of their foreign affiliates and repatriated the capital, than they invested abroad. However, the FDI outflows are – as the inflow figures – distorted by the Anglo American-De Beers transaction (figure III.13).[30] Excluding that transaction, FDI outflows from Africa would have been reduced only by some $650-$800 million in 2001. That decline in turn was largely due to a reduction in FDI outflows from Liberia (more than $500 million in 2001). As almost all FDI into Liberia is related to the registering

of ships under flag-of-convenience, it has little significance for the overall FDI trends in Africa. For all other African countries, FDI flows were insignificant, not surpassing the $100 million mark even for such a large country as Nigeria.

2. Asia and the Pacific

FDI flows to the developing economies of Asia and the Pacific declined from $134 billion in 2000 to $102 billion in 2001. Much of the decline was due to an over 60 per cent drop in flows to Hong Kong, China, which had recorded a massive inflow ($62 billion) in 2000 (*WIR01*, p. 25). If this is discounted, inflows in 2001 were at the peak reached in the previous decade. While they remained stagnant in North-East and South-East Asia, they increased significantly in South and Central Asia (by 32 per cent and 88 per cent, respectively) (figure III.14). The share of developing economies of the Asia-Pacific region in global inflows increased from 9 per cent in 2000 to nearly 14 per cent in 2001. According to the UNCTAD Inward FDI indices, during the past decade, while FDI potential improved in many economies (e.g. Hong Kong (China), Republic of Korea and Taiwan Province of China) FDI performance declined in Malaysia and Singapore (figure III.15 and table II.1).

Within these overall trends, economies performed unevenly in 2001. China regained its position – lost to Hong Kong, China in 2000 – as the largest recipient in both the region and the developing world. India, Kazakhstan, Singapore and Turkey were leading recipients in their respective subregions (figure III.16).

FDI inflows to *China* – the largest recipient among developing countries for most of the past decade – regained their momentum after three years of stagnation, to reach $47 billion in 2001. The momentum continued in the first half of 2002, when inflows increased by 19 per cent over the same period of 2001. The upward trend in FDI is likely to be sustained in the coming years, particularly in the light of the country's accession to the WTO (see *WIR00*, box III.2). Aside from investment by new entrants, reinvested

Figure III.13. Africa: FDI outflows, top 10 countries, 2000 and 2001[a]
(Millions of dollars)
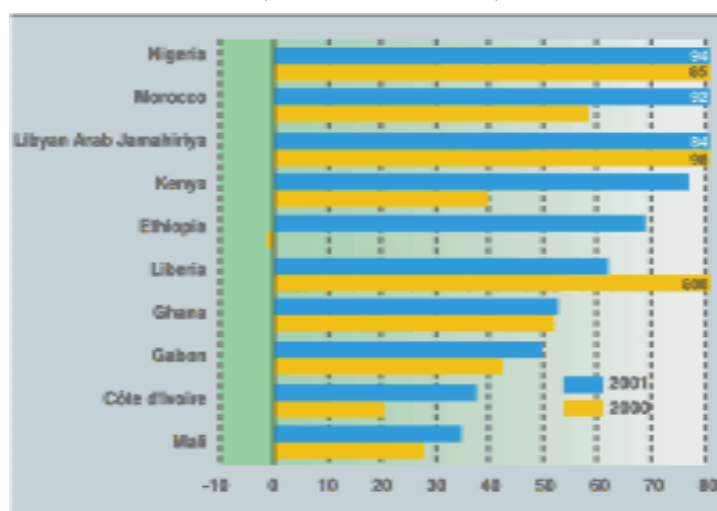
Source: UNCTAD, FDI/TNC database.

a   Ranked on the basis of the magnitude of 2001 FDI outflows.

Figure III.14. **FDI inflows and their share in gross fixed capital formation in developing Asia and the Pacific, 1990-2001**

(Billions of dollars and percentage)
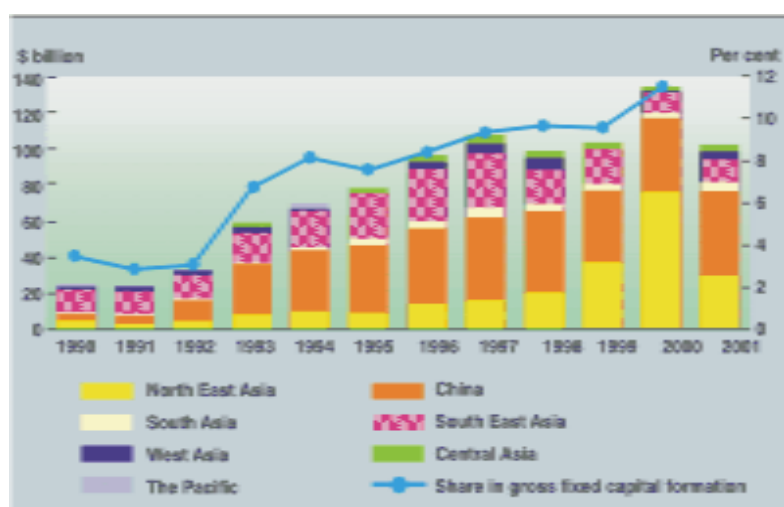
Source: UNCTAD, FDI/TNC database.

Note: North East Asia includes: Hong Kong (China); Korea, Democratic People's Republic of; Korea, Republic; Macau (China); Mongolia; and Taiwan Province of China.
South East Asia includes: Brunei Darussalam; Cambodia; Indonesia; Lao People's Democratic Republic; Malaysia; Myanmar; Philippines; Singapore; Thailand; and Viet Nam.
South Asia includes: Afghanistan; Bangladesh; Bhutan; India; Maldives; Nepal; Pakistan; and Sri Lanka.

The FDI boom in *North-East Asia* subsided, with inflows falling from $76 billion in 2000 to $30 billion in 2001. The growth of FDI to this subregion in 2000 was largely due to a doubling of inflows to Hong Kong, China, mostly on account of a single large acquisition in telecommunications, valued at $24 billion (*WIR01*, p.25). Nevertheless, the role of the Hong Kong, China, economy as a business hub for the region continued to be strengthened. By 2001, 3,237 TNCs had established regional offices there (including 944 regional headquarters), an 8 per cent increase over the previous year (table III.4). FDI in the *Republic of Korea* fell by two-thirds in 2001, to $3 billion, as the wave of post-financial-crisis M&As tailed off.[31] Inflows to *Taiwan Province of China* in 2001 amounted

earnings of foreign affiliates in China have become an important source of FDI, accounting for about one-third of the total inflows during 2000-2001. FDI continues to play a prominent role in China's economy. For example, foreign affiliates now account for 23 per cent of the total industrial value added, 18 per cent of tax revenues and 48 per cent of total exports (China, MOFTEC, 2001a).

to $4 billion, thus remaining at historically high levels. Its accession to the WTO has increased its attractiveness for international investment, particularly in the services sector (box III.5). The new regulations governing M&As passed in January 2002 are another factor that will encourage TNC participation in the restructuring of the economy.[32]

Figure III.15. **The UNCTAD Inward FDI Performance Index and Inward FDI Potential Index for selected countries in Asia, 1988-1990 and 1998-2000**
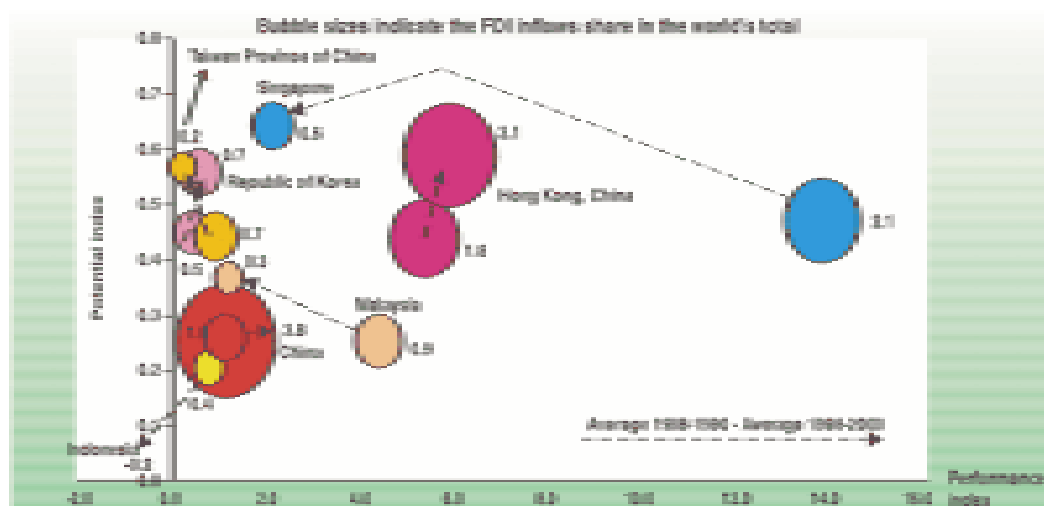
Source: UNCTAD, based on table II.1 and annex table B.1.

Figure III.16. Developing Asia and the Pacific: FDI inflows, top 10 economies, 2000 and 2001[a]

(Billions of dollars)
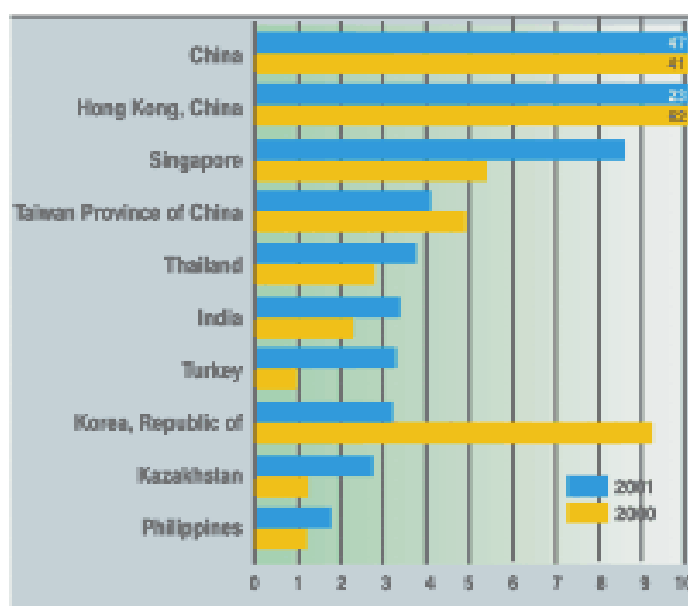
Source: UNCTAD, FDI/TNC database.

[a] Ranked on the basis of the magnitude of 2001 FDI inflows.

Flows to *South-East Asia* stagnated at $13 billion. Part of the reason was continued divestment ($3 billion in 2001) in *Indonesia,* where divestments have exceeded inflows since late 1998. In *Malaysia*, FDI remained stagnant; in response, the Government introduced a number of incentives, including the extension of the reinvestment allowance period from 5 to 15 years, and tax measures to benefit the machinery and equipment industry and manufacturing-related services. Inflows to the *Philippines* rose from $1.2 billion in 2000 to $1.8 billion in 2001. FDI in *Singapore* also increased by 59 per cent to $9 billion, the first time since 1998, but still below the peak of $11 billion reached in 1997. Faced with the erosion of its competitiveness in electronics vis-à-vis other countries in the region, Singapore has designated biomedical sciences as the next pillar of its manufacturing growth, and has been

Table III.4. Regional headquarters established by foreign firms in Hong Kong, China, 2001[a]

(Number)

By home economy[b]		By industry	By regional headquarters	By parent firms	By area of responsibility[b]	
United States	221	Manufacturing:	66	133	China	782
Japan	160	Electronics	63	112	Taiwan Province of China	486
United Kingdom	90	Biotechnology	3	21	Singapore	392
China	70	Services:	750	700	Republic of Korea	356
Germany	56	Construction, architectural, engineering and surveying	44	64	Thailand	329
Netherlands	48	Wholesale, retail and trade-related services	375	255	Malaysia	312
France	43	Tourism, entertainment, restaurants and hotels	18	22	Philippines	311
Switzerland	34	Transportation and related services	61	59	Japan	298
Singapore	25	Telecommunications	21	20	Indonesia	276
Taiwan Province of China	22	Financial services	94	136	Australia	220
Others	180	Business and professional services	81	67	India	216
		Information technology	40	53	Other countries/territories in the region	135
		Media and multi-media	16	24		
		Others	285	354		
Total above	949[c]		1 101[d]	1 187[e]		4 113[f]

Source: Hong Kong Census and Statistics Department, 2002.

[a] As at 1 June.
[b] Ranked in descending order.
[c] The total is higher than the actual number (944) due to the inclusion of joint ventures undertaken by two or more foreign investors.
[d] The total is higher than the actual number (944) due to the fact that some regional headquarters are engaged in more than one line of business.
[e] The total is higher than the actual number (944) due to the fact that some parent firms are engaged in more than one line of business.
[f] The total is higher than the actual number (944) due to the fact that some regional headquarters are responsible for more than one area.

improving infrastructure and targeting high-potential companies in that industry through various investment funds, including venture capital. Leading companies in biotechnology from both Europe and Japan have signed up to relocate to Singapore (EIU, 2002a). FDI in *Thailand* increased by $1 billion to $3.8 billion, but remained lower than its peak level in 1998. TNCs continued to consolidate their regional auto-manufacturing bases in Thailand. Auto and auto component manufacturers such as BMW, Honda, Toyota, Land Rover and Ishikawajima-Harima announced expansion or entry there. *Viet*

Nam is entering a new era as host to FDI, strengthened by its bilateral trade agreement with the United States and the prospects of its accession to the WTO. Although FDI commitments in the country rose by a third, to $3 billion in 2001, FDI flows on a balance-of-payments basis remained at the same level as in 2000 ($1.3 billion).

Inflows into *South Asia* reached $4 billion, a 32 per cent increase over the previous year. Of this, $3.4 billion went to *India* (a 47 per cent increase). India, by far the largest recipient in the region, has been

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Box III.5. The accession to the WTO of Taiwan Province of China: implications for FDI

Taiwan Province of China joined the WTO (as the Separate Customs Territory of Taiwan, Penhu, Kinmen and Matsu) in January 2002. Fulfilment of its WTO obligations involves substantial trade and investment liberalization, which will have an impact on its inward and outward FDI.

Accession to the WTO has made the economy of the Province more attractive to foreign investors. In services, in which FDI was largely restricted, Taiwan Province of China has committed to liberalizing a number of industries, including business services, communications, distribution, education, financial services, health and social services, and maritime and air transport services. The removal of foreign equity limitations will not only attract new investors, but also enable foreign joint-venture partners to increase their equity shares in existing affiliates. Indeed, after the preliminary liberalization measures taken by the Province in the process of accession to the WTO, FDI flows to the economy during 2000-2001 doubled from their annual average of the 1990s (annex table B.1), mainly boosted by flows to the services sector. The share of the services sector in total inflows increased from an average of 37 per cent during the 1990s to 58 per cent in 2001.

Unlike services, most manufacturing industries in Taiwan Province of China had been largely open to foreign investors and had already attracted a significant amount of FDI. Accession to the WTO may not, therefore, immediately have substantial FDI-generating effects. Indeed, the reduction of import restrictions and the elimination of trade-related investment measures in industries such as automobiles may reduce flows by eroding

the incentive for "barrier-hopping" FDI.[a] Nevertheless, over time, freer access to the import of inputs could help improve the cost-quality conditions of manufacturing, and increase the attractiveness of the economy as a site for efficiency-oriented manufacturing FDI.

Accession-related liberalization of trade and investment will probably also accelerate outward investment from the economy. As the domestic market becomes more open, increased competitive pressures in a number of previously protected industries will necessitate restructuring and induce more domestic firms to invest abroad. In fact, in response, partly to the long lobbying of the business community, and partly to the imperatives of the post-accession trading environment, the authorities in Taiwan Province of China have already lifted restrictions on direct investment into the mainland. The $50 million ceiling on individual projects has been removed and approval for investments of less than $20 million has become automatic. Effective January 2002, the authorities also lifted the ban on investments in notebook computers, third-generation mobile phones and consumer electronics products in the mainland.

In sum, accession to the WTO will make the island economy more attractive to FDI. The services sector will replace manufacturing as the engine of growth for inward FDI. In the manufacturing sector, FDI will play a more prominent role in the process of restructuring and consolidation in response to a new and more competitive landscape. As the FDI regime will be gradually liberalized, both inflows and outflows are likely to reach new and higher levels.

Source: UNCTAD.

[a] In the automobile industry, there will be a significant reduction of import tariffs, a phasing out of quotas, as well as the elimination of local-content requirements and tax incentives for domestically-produced automobile engines, chassis and bodies. This may reduce the incentive for some foreign investors to invest directly in domestic subcontractors or may induce them to bring in foreign suppliers.

taking steps to liberalize its FDI regime further. Inflows into other economies in the subregion stagnated or declined, apparently due to perceived instability in the investment environment, particularly after the September 11 event.

West Asia is estimated to have received $4.1 billion in FDI in 2001, considerably higher than in the previous year. *Turkey* had the largest inflows in the region (roughly $3 billion). FDI into *Saudi Arabia* also increased, helped by the establishment of the Saudi Arabian General Investment Authority (SAGIA) and the introduction of tax incentives and a law allowing wholly-owned foreign affiliates. The subregion as a whole (the petroleum sector apart) continues to be marginal as a recipient of FDI, though many countries in the region have liberalized their regimes. It has largely missed out on linking up to the international production systems that have driven export growth in East and

South-East Asia.[33] There are many countries in the subregion with the cheap labour that can attract export-oriented operations in low- to medium-technology goods (Sadik and Bolbol, 2001), a strategy pursued thus far only by Turkey. Moreover, considering the market size of the region – almost equivalent to that of China as measured by GDP – there is much greater potential for market-seeking FDI than has been realized (box III.6).

FDI in *Central Asia* rose by 88 per cent in 2001, to $3.6 billion, driven by the doubling of inflows to *Kazakhstan* ($2.8 billion). Resource-based activities – particularly in copper and zinc, as well as in oil and gas extraction – absorbed the largest share of inflows (77 per cent). The *Pacific region* remains marginal in terms of FDI inflows, with $200 million in FDI in 2001. Political instability and poor infrastructure compound the structural constraints of location and

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Box III.6. FDI potential in West Asia

Total FDI in West Asia accounted for less than 0.6 per cent of world flows in 2001, one-tenth of its share in world GDP.

The distribution of FDI is uneven in the region, partly reflecting, political instability and risk (Fujita, 2001b). Overall, however, judging from the ratios of FDI to GDP and domestic investment, the role of FDI has declined in West Asian economies over the past 15 years. Turkey,

which had the largest inflows in the region (roughly $3 billion) in 2001 (annex table B.1), is an exception. However, even in Turkey, inflows are not commensurate with the country's potential (tables II.1 and II.3). Among the eight countries in this region for which the UNCTAD Inward FDI Performance Index and Inward FDI Potential Index have been calculated, only Jordan improved its position based on both indices over the past decade (box figure III.6.1).

Box figure III.6.1. The UNCTAD Inward FDI Performance Index and Inward FDI Potential Index for selected countries in West Asia, 1988-1990 and 1998-2000
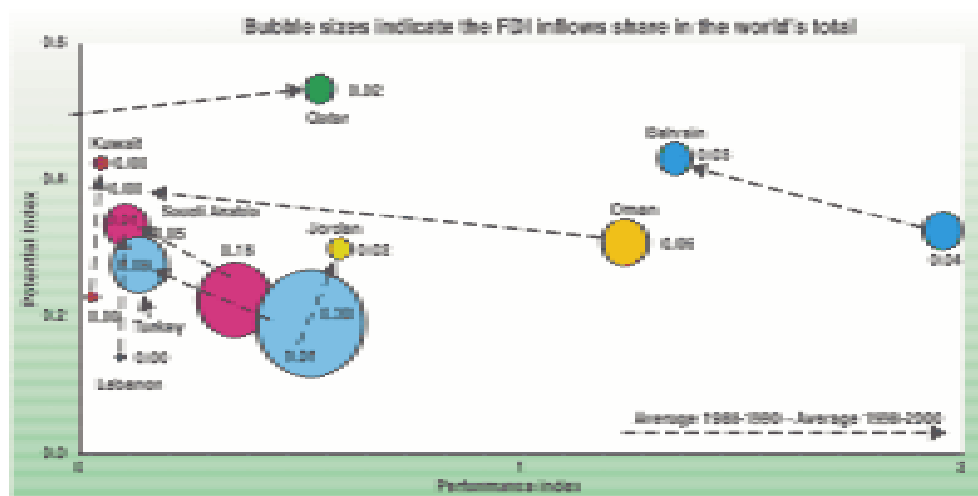
Source: UNCTAD, based on table II.1 and annex table B.1.

Source: UNCTAD.

size in the Pacific island countries. However, in both these subregions, FDI accounted for a significant share of gross fixed capital formation (23 per cent during 1998-2000), far higher than in other developing and developed regions (figure III.17 and annex table B.5).

Figure III.17. Developing Asia and the Pacific: FDI flows as a percentage of gross fixed capital formation, top 10 economies, 1998-2000ᵃ
(Percentage)

Source: UNCTAD, FDI/TNC database.
ᵃ Ranked on the basis of the magnitude of 1998-2000 FDI inflows as a percentage of gross fixed capital formation.

Outward FDI from developing Asia, at about $32 billion in 2001, hit its lowest level since 1998 (figure III.18), mainly because of a massive fall in outflows from the largest traditional investor, *Hong Kong, China*. The territory's outflows in 2001 were only $9 billion, compared to $59 billion in 2000. *Singapore* overtook Hong Kong, China as the region's single largest outward investor (figure III.19). Outflows from Singapore doubled in 2001. This increase was boosted by two major cross-border M&A deals: the acquisition of Cable & Wireless Optus of Australia by SingTel of Singapore ($9 billion) and the acquisition of the Dao Heng Bank Group of Hong Kong, China, by the DBS Group of Singapore ($6 billion) (annex table A.I.2). Indian TNCs accelerated their outward investment, particularly the asset-seeking kind, via cross-border M&As. The value of cross-border acquisitions by Indian firms doubled, to over $2 billion in 2001 (annex table B.8). Indeed, one of the distinctive features of outward FDI from developing Asia is the shift in the mode of entry over the past two years, from greenfield investment to

Overall, prospects for FDI in the Asia-Pacific region remain bright. Surveys suggest that Asia will continue to be an important location for the expansion of activities within TNCs' international production systems. The UNCTAD/AFII/Andersen survey reported that over half the respondents saw "improved" or "significantly improved" prospects for FDI in the region in the next three to five years (UNCTAD, 2001a). China topped the list in Asia, followed by Indonesia and Thailand. The recent MIGA survey also ranks India, Malaysia and Singapore as favoured destinations. Greenfield investment will become, once again, after the M&A boom during the financial crisis, the preferred option by far for TNC entry into the region (MIGA, 2002).

Figure III.18. Developing Asia and the Pacific: FDI outflows and their share in the world, 1990-2001
(Billions of dollars and percentage)
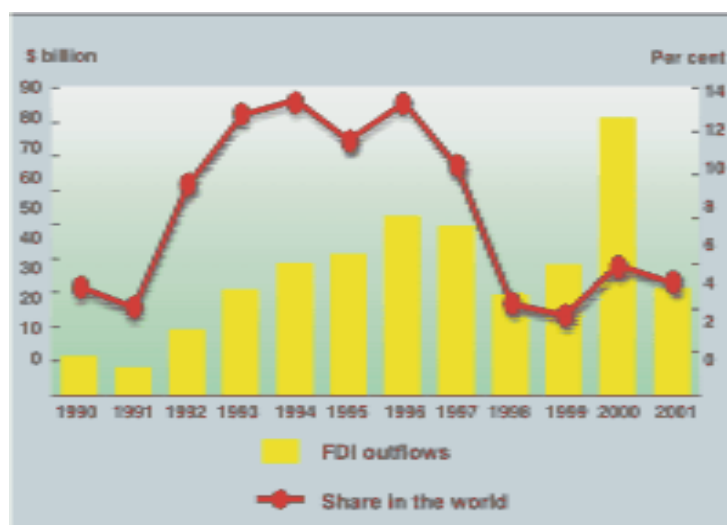
Source: UNCTAD, FDI/TNC database.

Figure III.19. Developing Asia and the Pacific: FDI outflows, top 10 economies, 2000-2001ᵃ

(Billions of dollars)
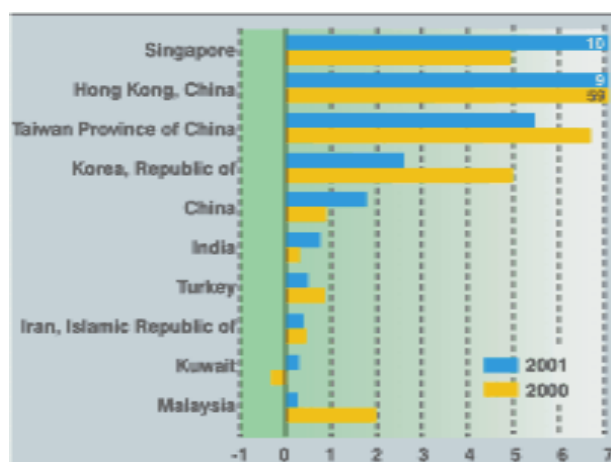
Source: UNCTAD, FDI/TNC database.

ᵃ   Ranked on the basis of the magnitude of 2001 FDI outflows.

M&As. The latter reached $25 billion in 2001, about 80 per cent of the outflows from the region.³⁴

FDI from *Taiwan Province of China* fell by 18 per cent in 2001. Much of its investment went to China, as its industries have steadily relocated there. The nature

of activities transferred to China has changed over time, from labour-intensive ones in the 1980s to capital-intensive and high-technology (electronics and computer components) ones in the late 1990s. The trend is likely to continue, given the easing of restrictions on FDI from Taiwan Province of China into China and the WTO accession of both economies. Outward FDI from the *Republic of Korea* declined by almost 50 per cent, to about $2.6 billion in 2001. Korean TNCs continued to sell off non-core activities abroad, leading to a reduction in their foreign assets by almost a third between the late 1990s and 2001. Over half of Korean outward FDI stock remains in the manufacturing sector (mainly in electrical and electronics); two-thirds of it is located in Asia and a quarter in North America.³⁵

Firms from *China* have been expanding abroad rapidly. The top 12 Chinese TNCs, mainly State-owned enterprises, now control over $30 billion in foreign assets with over 20,000 foreign employees and $33 billion in foreign sales in 2001 (table III.5). Non-State-owned enterprises are now following the State-owned ones abroad, although most of them are small and medium-sized TNCs. Non-State-owned firms now have investments in over 40 countries, not only in Asia but

Table III.5. **The 12 largest TNCs from China, ranked by foreign assets, 2001**

(Millions of dollars and number of employees)

Ranking by		Corporation	Industry	Assets		Sales		Employment		TNIᵃ (Per cent)
Foreign assets	TNIᵃ			Foreign	Total	Foreign	Total	Foreign	Total	
1	3	China Ocean Shipping (Group) Company	Transportation	9 382	16 926	2 149	6 757	4 124	74 669	30.9
2	4	China National Offshore Oil Corporation	Petroleum	4 814	8 635	976	3 669	13	24 406	27.5
3	5	China State Construction Engineering Corporation	Construction	3 739	8 099	1 818	5 790	6 833	236 464	26.8
4	1	China National Cereal, Oils and Foodstuff Imp and Exp Corp.	Trade	3 707	5 014	6 446	13 004	359	25 000	41.6
5	12	China National Petroleum Corporation	Petroleum	3 350	83 254	1 600	41 089	4 400	1 167 129	2.8
6	2	China National Chemicals Imp and Exp Corp.	Trade	2 788	4 928	9 148	16 011	350	7 950	39.4
7	9	SHOUGANG Group	Steel and iron	969	6 675	467	4 401	2 086	179 997	8.8
8	6	China National Metals and Minerals Imp and Exp Corp.	Trade	729	2 797	998	4 277	570	7 145	9.1
9	7	China Harbor Engineering Company (Group)	Construction	520	3 271	6 579	17 826	812	70 160	18.0
10	11	Shanghai Baosteel Group Corporation	Steel and iron	383	19 389	1 211	8 643	50	113 896	5.3
11	8	Haier Group Corporation	Refrigerator production	328	3 188	976	7 260	803	31 281	8.8
12	10	ZTE Corporation	Telecommunication equipment	17	1 205	260	1 685	120	12 961	5.9

Source: UNCTAD, FDI/TNC database.

ᵃ   TNI is the abbreviation for "transnationality index". The transnationality index is calculated as the average of the following three ratios: foreign assets to total assets, foreign sales to total sales and foreign employment to total employment.

also in other parts of the world. Among the leading non-State-owned TNCs are the Huawei Technologies Corporation (40 foreign affiliates), the Wanxiang Group (9 foreign affiliates) and Zheng Tai Group (7 affiliates) (Zhan and Ge, 2002).

3. Latin America and the Caribbean[36]

FDI into Latin America and the Caribbean declined for the second year in a row. The region received $85 billion in 2001, 11 per cent less than in 2000, which in turn was 13 per cent lower than in 1999 (figure III.20). FDI flows to the telecom industry dropped substantially, as did flows to two of the largest countries (Argentina and Brazil). (See box III.7 on the impact of the Argentine crisis on FDI flows.)

However, *Mexico* doubled its inflows to $25 billion, overtaking *Brazil* to become the largest FDI recipient in the region for the first time since 1995 (figure III.21 and annex table B.1). The increase was driven by the acquisition of Banamex (Banacci) by Citigroup for $12.5 billion – the second largest acquisition in the region ever and the third largest worldwide in 2001 (annex table A.I.2).[37] FDI in *Chile* also rose by 50 per cent, to reach $5.5 billion.

According to UNCTAD's Inward FDI Performance Index, a majority of the economies in Latin America and the Caribbean are attracting shares of global inflows that exceed their shares in global GDP. Of the 24 economies in the region for which the Index has been calculated (chapter II), 16 had values of one or higher. According to the UNCTAD Inward FDI Potential Index, it is the smaller, middle-income economies that have the greatest potential in the region, while those with the lowest GDP per capita have the least. Partly because the FDI Potential Index captures mainly structural factors other than the size of an economy, large economies like Mexico and Brazil rank relatively low on the FDI Potential Index, despite being considered countries

with great potential by TNCs interviewed for a recent survey (see below). Some small Caribbean and Central American economies and some countries with important natural resources rank relatively high on performance, despite poor potential. As a percentage of total investment (measured by gross fixed capital formation), countries with important natural resources received the largest flows of FDI during 1998-2000, with Bolivia and Trinidad and Tobago heading the list (figure III.22). It is worth noting that Bolivia's ranking on the FDI Performance Index has improved considerably over the past decade (figure III.23).

Figure III.20. FDI inflows and their share in gross fixed capital formation in Latin America and the Caribbean, 1990-2001
(Billions of dollars and percentage)
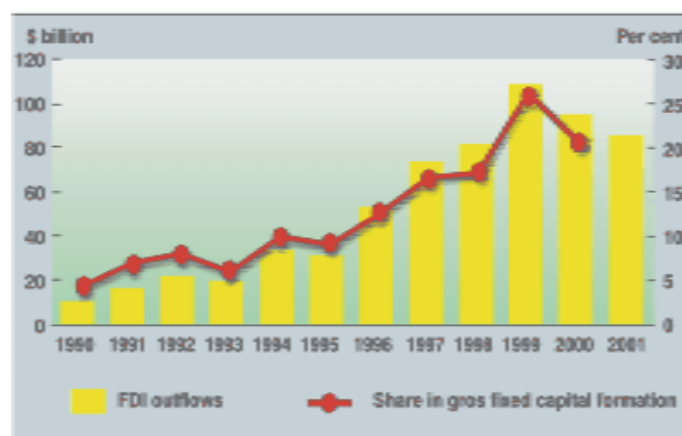
Source: UNCTAD, FDI/TNC database.

Figure III.21. Latin America and the Caribbean: FDI inflows, top 10 economies, 2000 and 2001[a]
(Billions of dollars and percentage)
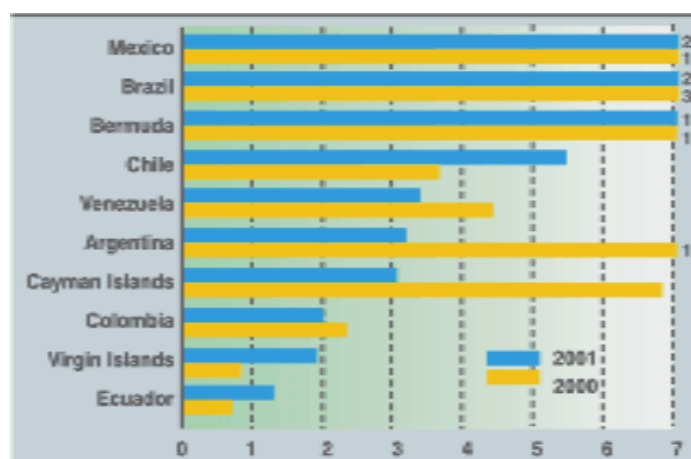
Source: UNCTAD, FDI/TNC database.

[a] Ranked on the basis of the magnitude of 2001 FDI inflows.

Box III.7. FDI and the economic crisis in Argentina

FDI played an important role in Argentina's economy in the 1990s. The ratio of FDI to gross fixed capital formation rose, and its level in the period 1998-2000 was comparable to that of Brazil and Mexico (annex table B.5). Flows rose steadily, peaking in 1999, partly on account of the acquisition of the oil company YPF by Repsol of Spain (box figure III.7.1). The share of foreign affiliates in the sales of the 1,000 largest firms in Argentina increased from 34 per cent in 1990 to 68 per cent in 2000.[a]

In 1999, the country began to slide into recession and suffer from high levels of country risk and growing uncertainty about the future of the currency convertibility scheme that had been in place since 1991. Nevertheless, FDI inflows in 2000 were the second highest since 1992. However, portfolio flows (partly linked to M&As) had already turned negative in 1999 (box figure III.7.1).[b] The deepening crisis finally affected FDI inflows in 2001 and they fell (by 70 per cent) to the level of the early 1990s; they are expected to fall further in 2002. Total investment in foreign affiliates declined by 30 per cent in 2001, reaching its lowest level since 1996, and it is expected to fall another 50 per cent in 2002.[c] That compares with a fall in total domestic investment of 16 per cent in 2001, and an expected fall of nearly 50 per cent in 2002.[d]

As with East Asia in 1997-1998 (*WIR98*), the fall in foreign currency prices of domestic assets, and the fact that many domestic firms are heavily indebted and have limited access to liquidity (due, among other reasons, to the breakdown in the domestic financial system), may lead to acquisitions by foreign firms. The depreciation also increases the attractiveness of the country for export-oriented FDI. As yet, however, there are no signs of this occurring on a substantial scale. In fact, some firms with significant investments in the 1990s – for example, France Télécom and HSBC – have announced that they will not make more investments in Argentina in the near future, and have even suggested that they might withdraw entirely.[e] Some smaller firms – such as the German autoparts maker, Kautex, and the United States grain trader, Tradigrain – have abandoned their operations in the country.[f] Campofrio, a Spanish meat-processing and packaging firm, has put its Argentine affiliate on sale.[g]

Argentina's economy has now gone through three years of deep recession. In 2001, domestic GDP was more than 8 per cent below the 1998 level and a further fall of at least another 15 per cent is expected in 2002 (IMF, 2002). The Convertibility Scheme was abandoned early in 2002 and, by the end of June 2002, the peso had been devalued vis-à-vis the dollar to almost a quarter of its value six months earlier. Bank deposits have been frozen, giving rise to public demonstrations against the banking system and eroding the trust of Argentine citizens in local banks.

Box figure III.7.1. Financial flows to Argentina 1994-2001
(Billions of dollars)
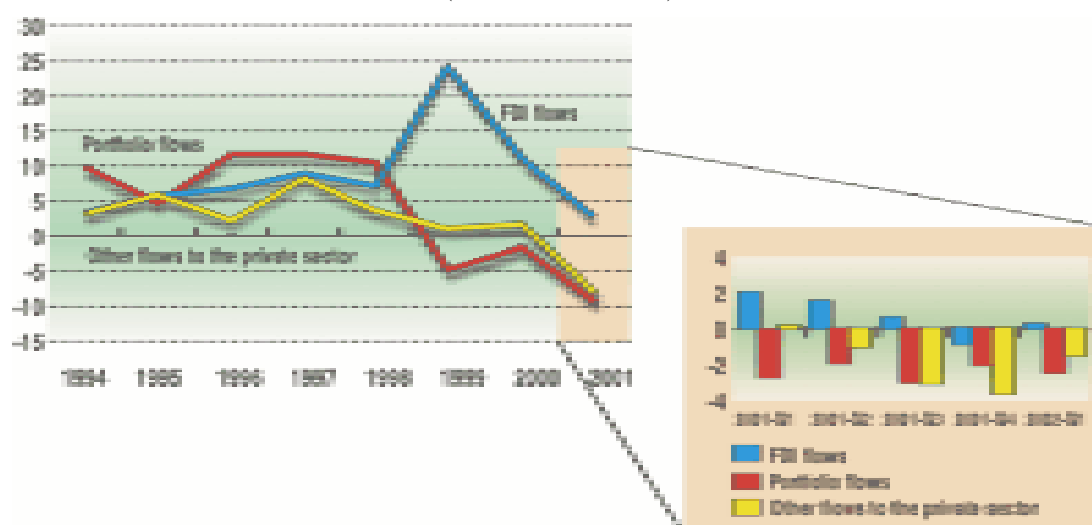
Source: UNCTAD, based on data from Argentina, Ministerio de Economia.

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Box III.7. FDI and the economic crisis in Argentina (continued)

It is too early to tell how these developments will affect FDI inflows and TNC operations in the country. The impact will depend on a number of factors:

- *The effect of the devaluation on the relative prices of Argentine exports.* So far the devaluation of the peso has not had a major inflationary impact on domestic prices. Consumer prices are estimated to have increased by 20 per cent between January and April 2002, and possible further increases of 30-40 per cent are envisaged during 2002.[h] If price rises continue to be modest, a significant devaluation of the real exchange rate could be achieved, not only making imports more expensive (and hence creating new opportunities for local firms) but also turning Argentina into an attractive location for export-oriented FDI. In fact, some foreign firms have already announced plans to increase exports from their Argentine affiliates. For example, Accenture plans to export information services from Argentina, to compete with those from India and the Philippines.[i] Others are reconsidering the planned closure of production lines. For example, Fiat Iveco was to close its truck production facilities in Argentina and import those vehicles from Brazil, but is now reconsidering this decision.[j] However, export increases may take some time to occur. Furthermore, the possibility of a resumption of high inflation reversing the real-exchange-rate decline (and the consequent improvement in export competitiveness) cannot be disregarded.

- *The extent to which market-seeking FDI takes advantage of the "bargain prices" of domestic assets resulting from the crisis and the devaluation.* Banks and other portfolio investors in Argentine firms – including so-called "vulture funds" – as well as TNCs, with or without foreign affiliates in the country, could acquire stock in indebted firms that cannot meet their obligations but have a promising future. For instance, some Brazilian firms interested in expanding their operations abroad have already expressed their interest in acquiring Argentine firms.[k] However, no major acquisitions of firms in distress in manufacturing and/or services have been made so far, with the exception of the acquisition by Ambev, the Brazilian brewing group, of a 36 per cent voting stake in Quilmes, Argentina's largest brewer. The acquisition of the cash-strapped Quilmes was mainly motivated by the objective of integrating the activities of the two firms in order to consolidate their dominating positions in Latin America's Southern Cone; both of them had already invested in countries such as Bolivia, Chile, Paraguay, Uruguay and Venezuela.

- *The depth and duration of the recession.* The recession has created significant idle capacity in most industries, particularly in firms that have not been able to increase their exports to compensate for the fall in domestic demand. For instance, the production of cars, which is dominated by TNCs, nearly halved between 1998 and 2001. Foreign affiliates have suffered major losses in recent years, especially in banking, telecom services, supermarkets and oil refining. As a result, many TNCs are adopting a "wait and see" attitude.[l] Although only a small number have reacted by pulling out of the country,[m] few, if any, are committing further funds to the affiliates they already have or to new projects in the country.

- *Attitudes and policies with respect to inward FDI.* A significant proportion of Argentine citizens seem to believe that the country has been "sold out" to foreign investors. One factor explaining the present widespread mistrust of foreign investors is the large increase in rates for services after privatization in utilities such as telecommunications.[n] According to polls by the Argentine market research firm Graciela Romer & Asociados, while 60 per cent of the citizens surveyed agreed that utilities should be privatized in February 1992, that figure fell to 23 per cent in December 2001 (Graciela Romer & Associates, 2002). A recent poll by Gallup and two Argentine market research firms also showed that 55 per cent of Argentine citizens do not trust privatized firms. The financial crisis that led to the freezing of bank accounts and to the conversion of dollar-denominated deposits into peso-denominated ones at a rate significantly below the market rate of exchange led most Argentines (70 per cent of those surveyed by the Argentine market research firm Hugo Haime y Asociados) to believe that foreign-owned banks had "taken their deposits away". Although foreign banks did not make the decision either on the freezing of the deposits or on their conversion to pesos, their headquarters generally have been reluctant to provide funds to keep their local branches afloat. (Argentina's central bank was forced to suspend the operations of the Argentine affiliate of ScotiaBank for that reason.)

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According to the UNCTAD/AFII/ Andersen survey, FDI prospects for Latin America and the Caribbean over the next three years are likely to improve, although not as much as in East Asia or Central and Eastern Europe (UNCTAD, 2001a). One quarter of the respondents – a higher share of respondents than in any other developing region – considered M&As the most favoured form of expansion into the region. This survey and the similar one conducted by MIGA (MIGA, 2002) concluded that, in the near future, FDI in the region will continue to be concentrated in Brazil, Mexico and, to a lesser extent, Chile.[38] By sector, the MIGA

survey shows that Brazil is attracting interest in both manufacturing and services, while Mexico is considered a top destination only for manufacturing, and Chile and Argentina only for services.

Most of the slowdown of FDI inflows to Latin America and the Caribbean can be attributed to a decline in Spanish FDI (figure III.24), which in 1999 and 2000 financed large M&As in services, very often involving privatizations (*WIR00*, p. 59). In general, FDI inflows through privatizations have slowed down in the region, particularly in Brazil, where they had reached $8.7 billion in 1999

Box III.7. FDI and the economic crisis in Argentina (concluded)

Apart from the change in attitudes towards foreign investors that may or may not be reflected in FDI policies, a number of measures have been taken, or are being discussed (including with the industries involved), that directly affect many TNCs in the country, such as a bankruptcy law, restrictions on banking activities, the freezing and conversion to pesos of utility tariffs, and a windfall tax on oil exports.

The crisis may also have negative effects for Argentine firms that made significant outward investments during the 1990s, especially for those that have relied heavily on foreign credit. In fact, IMPSAT, a firm that had expanded to many Latin American countries to provide telecom services, was not able to make a scheduled bond interest payment in December 2001 (the bond had been issued in the United States market) and has recently agreed to a plan through which its

creditors will become the firm's main stockholders. Affiliates of IMPSAT have also had problems in meeting their debt obligations.[p]

To sum up, there is considerable uncertainty, affecting FDI in Argentina at present, as regards both economic factors and policy with respect to inward FDI and the large public service industries that have been privatized with TNC participation. However, should Argentina's economic situation improve, with a resumption of growth, a significant real peso devaluation, and an environment of institutional stability, foreign investors may well be induced to invest again in this country that is rich in natural resources and human capital. Furthermore, if the Southern Common Market (MERCOSUR) is able to make progress again, that will become an additional factor to induce FDI back into Argentina.

Source: Chudnovsky and López.

[a] Estimates based on data from *Prensa Economica*, October 1991 and October 2001; and *Mercado*, August 1991 and July 2001.
[b] A similar contrast between the behaviour of FDI and portfolio capital was observed during the Asian and Mexican crises in 1997-1998 and 1994-1995, respectively (see *WIR98*).
[c] According to data from the Centro de Estudios para la Produccion of the Secretariat of Industry. The data show the total amount of real investments in foreign affiliates, irrespective of the source of financing of those investments.
[d] *Latin America Concensus Forecasts*, 17 June 2002.
[e] France Télécom's Chairperson said that the company was likely to exit Telecom Argentina (*Business News Americas*, 22 March 2002). HSBC's chairperson said that the bank's policy "is to invest for the long term, but it is entirely possible that political events in Argentina could cause us to reassess this policy" (*Financial Times*, 5 March 2002).
[f] *La Nación*, 7 March and 9 March 2002.
[g] *La Nación*, 12 April 2002.
[h] *Latin America Consensus Forecasts*, ibid.
[i] *La Nación*, 31 March 2002.
[j] *La Nación*, 12 March 2002.
[k] *La Nación*, 15 March 2002.
[l] For instance, the president of Volkswagen's Brazilian operations said that while VW's plant in Buenos Aires is viable – in March its chief financial officer had said that the firm was to close down the factory – the company will make no more investments for the time being (*AFX Europe*, 2 May 2002).
[m] For example, two foreign banks, Bank of Nova Scotia (Canada) and Credit Agricole (France), pulled out of the country in 2002. The former has suspended the activities of its Argentine affiliate, Scotia Bank Quilmes, for lack of liquidity and has put it up for sale. The Government has taken control of the local affiliates of Credit Agricole after the parent company decided to abandon them (*El Pais*, 21 May 2002).
[n] Although there has been an improvement in the availability and quality of public services after privatization, at present most citizens appear to favour a re-nationalization of those services.
[o] *Página 12*, 24 March 2002.
[p] *Clarín*, 12 March 2002.

Figure III.22. Latin America and the Caribbean: FDI flows as a percentage of gross fixed capital formation, top 10 economies, 1998-2000ᵃ
(Percentage)
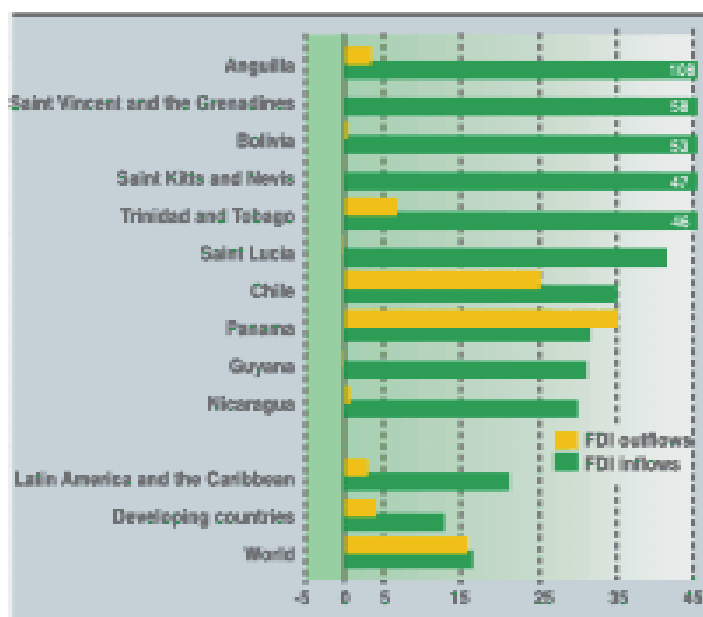
Source: UNCTAD, FDI/TNC database.

ᵃ Ranked on the basis of the magnitude of 1998-2000 FDI inflows as a percentage of gross fixed capital formation.

and $7 billion in 2000, but were only $1 billion in 2001 (figure III.25); they are unlikely to resume their high levels of the past in the near future. Some other countries, such as Argentina and Chile, have already completed most of their privatization programmes, while others such as Ecuador, Paraguay or Uruguay are finding it politically difficult to sell State-owned enterprises.

The sectoral breakdown of inward FDI to the region changed in 2001 from the pattern observed in previous years. FDI into the services sector in Mexico rose to almost two-thirds of total inflows, from an average of 23 per cent in the period 1994-2000, driven by large acquisitions in banking (box III.8) and telecommunications. In contrast, Brazil saw a decline in FDI in services, especially telecom and financial services, which had attracted large M&As by foreign firms in 1999 and 2000,[39] and an increase in the manufacturing sector, which has been attracting substantially larger FDI inflows since the devaluation of its currency in 1998 (figure III.26). In Brazil's electricity industry, FDI halved in 2001 despite the urgent need for investment in power generation,[40] mainly because of disagreements about the regulatory framework governing the industry.[41]

Figure III.23. The UNCTAD Inward FDI Performance Index and Inward FDI Potential Index for selected countries in Latin America, 1988-1990 and 1998-2000

Source: UNCTAD, based on table II.1 and annex table B.1.
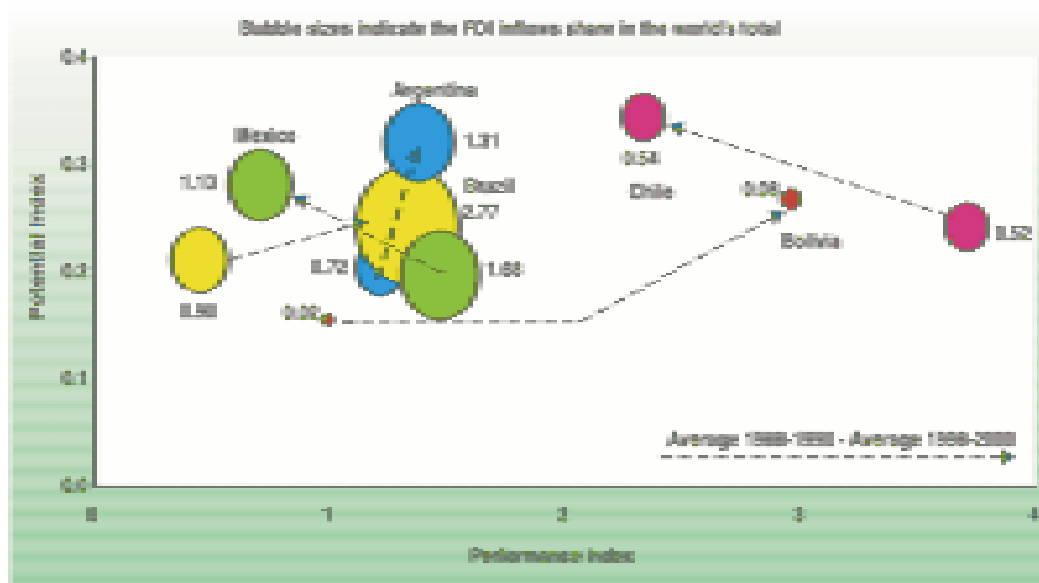
Figure III.24.   Spanish FDI in Brazil, Argentina, Chile and Mexico, 1994-2001
(Billions of dollars)
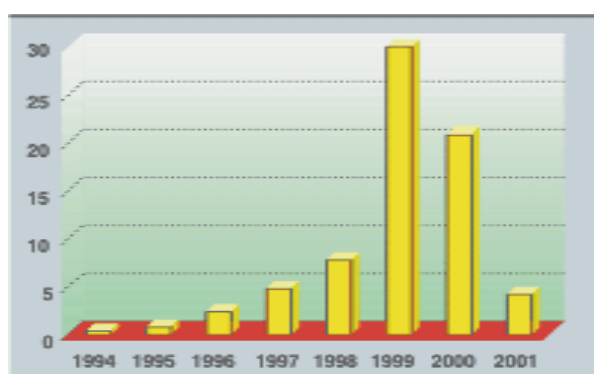
Source: UNCTAD, based on data from Secretaría de Economía (Mexico), Central Bank of Brazil, Dirección General de Cuentas Internacionales, Ministerio de Economía (Argentina) and Comité de Inversiones (Chile).

Figure III.25.   FDI in privatization in Brazil, 1996-2001
(Billions of dollars)
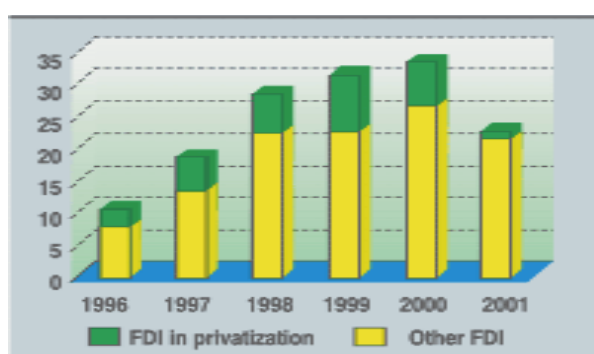
Source: UNCTAD, based on data from the Central Bank of Brazil.

Figure III.26. FDI inflows in the manufacturing sector in Brazil, 1996-2001
(Billions of dollars and percentage)
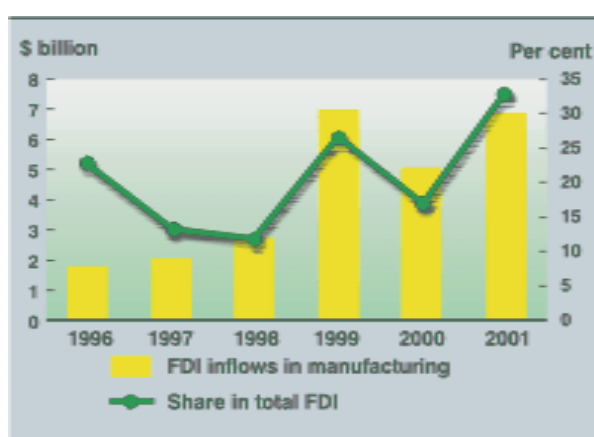
Source: UNCTAD, based on data from the Central Bank of Brazil.

Box III.8. Mexico: FDI in financial services

In recent years, the share of financial services in Mexico's total inflows has grown significantly. In 2001, the industry experienced the single largest foreign investment ever made in Mexico: the acquisition of Banamex (the most important bank in Mexico) by the United States financial group, Citicorp, for nearly $12.5 billion. This acquisition boosted the share of financial services in Mexico's inflows, from 32 per cent in 2000 to 58 per cent in 2001. These shares contrast with the average share for financial services of 10 per cent during 1994-1999.

The increasing interest of foreign investors in the financial services industry has been one of the important characteristics of FDI in Mexico only in recent years, even though the opening up of the industry to FDI started in 1994 as a result of the negotiations on NAFTA and the subsequent liberalization and deregulation, between 1996 and 1999, of Mexico's legal framework for regulating financial services. The Foreign Investment Law of 1993 originally limited FDI participation in holding companies for financial groups and commercial banks to 30 per cent. In 1996, the law was revised, allowing participation of up to 49 per cent. A further revision in 1999 allowed majority foreign ownership. However, the participation of foreign financial institutions in such activities in Mexico is subject to the provisions of a bilateral or an international agreement regulating the establishment of affiliates in the country and conditional on obtaining the relevant authorizations.

Another factor behind the growth of FDI in financial services was the difficult situation faced by Mexican financial intermediaries as a result of the financial and balance-of-payments crisis in 1995. This resulted in an urgent need for quick capitalization.

Facilitated by the changes in law, Mexico's financial services industry attracted investments by a number of foreign financial groups between 1994 and 2001, including Citicorp (Citibank) of the United States in 1994; Bank Bilbao-Vizcaya of Spain in 1995; Bank of Montreal of Canada in 1996; Banco Santander of Spain in 1997; Bank Bilbao-Vizcaya of Spain again in 2000; and Citicorp of the United States, in the previously mentioned acquisition in 2001. In view of the financial and technological strengths of these institutions, their presence has the potential to translate into major improvements in Mexican financial services with the consequent benefits for users of greater availability of credit, attractive rates and security of savings.

Source: García.

The recession in the United States directly affected manufacturing in Mexico and the Caribbean basin, particularly in *maquila* enterprises exporting to the United States.[42] In Mexico, FDI inflows in the manufacturing sector declined by $4 billion in 2001. FDI into resource-based activities was especially important in the Andean countries. *Bolivia* received $647 million in FDI, half of it in oil and gas extraction; *Ecuador* received $1.3 billion, 85 per cent of which was in petroleum; and *Venezuela* attracted $3.4 billion in total inflows, 24 per cent lower than in 2000, amid concerns over political and economic stability.[43]

Most FDI *outflows* from Latin American countries remain within the region. *Chile* continued to be the largest investor abroad with $3.8 billion in outflows in 2001 (figure III.27), followed by *Mexico* with $3.7 billion. Mexican companies continue to expand into the United States; for example, the food group, Bimbo, acquired Orowit in the United States for $610 million in January 2002.

Figure III.27. Latin America and the Caribbean: FDI outflows, top 10 economies, 2000 and 2001[a]
(Billions of dollars)
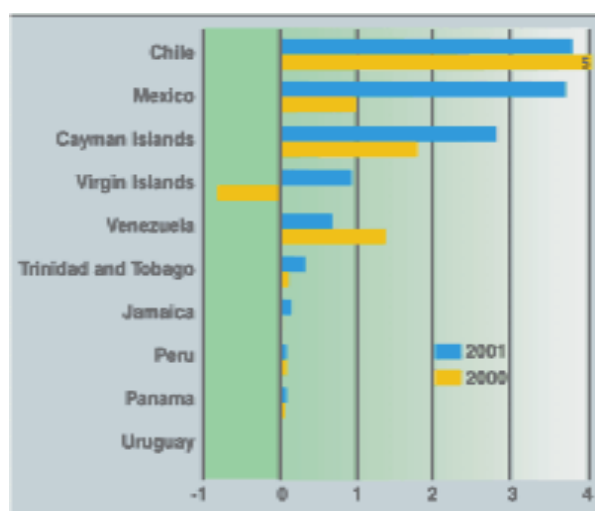
Source: UNCTAD, FDI/TNC database.

[a] Ranked on the basis of the magnitude of 2001 FDI outflows.

C. Central and Eastern Europe

In 2001, *FDI flows* to and from Central and Eastern Europe (CEE) remained at levels comparable to those of the previous year.

In fact, while global FDI inflows declined by more than 40 per cent – and this slowdown affected all regions except Africa – flows into CEE grew by two per cent in 2001. They rose in 14 of the region's 19 countries, and its share of world inflows rose from 2 per cent in 2000 to 3.7 per cent in 2001. This suggests that CEE is viewed as a stable and promising region for FDI, its overall economic growth having been less affected by the global slowdown in 2001 than that of any other region. The survey by UNCTAD/AFII/Andersen (UNCTAD, 2001a) found that two-thirds of the respondents expected CEE to have improved or significantly improved prospects for FDI in the next three to five years. This is the highest proportion of positive responses for all regions in the world covered by the survey.

FDI continues to be highly concentrated by country. Five countries (Poland, the Czech Republic, the Russian Federation, Hungary and Slovakia) accounted for three-quarters of the region's inflows in 2001. Of these, all but Slovakia have dominated FDI inflows to CEE since the early 1990s. The UNCTAD/AFII/Andersen survey found that Poland, Hungary, the Czech Republic and the Russian Federation (in that order) were the favoured locations for four-fifths of respondents (UNCTAD, 2001a). The survey by MIGA (MIGA, 2002) drew similar conclusions: Poland was the most popular location, followed by the Czech Republic, Hungary and the Russian Federation. The concentration of FDI is expected to continue in the near future.

Poland, the region's leading recipient since 1996, suffered a decline in 2001 (figure III.28). The reasons lie in the Polish economy: privatization is coming to an end and macroeconomic problems have surfaced. The Government has launched a new and extended incentive scheme to attract fresh investors (box III.9), similar in many respects to schemes already in place in Hungary and the Czech Republic (*WIR98*, p. 289). FDI in the *Czech Republic*, the region's second-largest FDI recipient since 1998, declined moderately – by one per cent – in 2001. Inflows were led by some major greenfield investments, including a major venture by Toyota (Japan) and PSA (France) for the manufacture of automobiles (box III.10). This opens up opportunities for the Czech auto-supplier industry to diversify beyond inputs for Volkswagen/Skoda, so far the only large car producer in the country.

Figure III.28. Central and Eastern Europe: FDI inflows, top 10 countries, 2000 and 2001ᵃ

(Billions of dollars)

Source: UNCTAD, FDI/TNC database.

ᵃ Ranked on the basis of the magnitude of 2001 FDI inflows.

Box III.9. The new system of incentives for investors in Poland

In May 2002, a new law on financial support for investment entered into force in Poland. It stipulates the principles and forms of such financial support, applicable to both foreign and domestic investors. Investments benefiting from the scheme should meet one of the following conditions:

- The value of the new investment is at least %10 million;
- The value of the new investment is at least %500,000, results in the development and modernization of an existing business, and maintains at least 100 jobs (or 50 jobs if the investment is made in one of the priority locations) for at least five years;
- As a result of the investment, at least 20 new jobs are created for at least five years;
- The investment involves technological innovation, making it possible to manufacture modern and competitive goods or services; or
- The investment introduces modern, environmentally-friendly technologies.

Financial support to new investments can take a number of forms.

For investors, these are (individually or together):

- A subsidy determined as a percentage of the value of a new investment, but not exceeding 50 per cent of the maximum amount of public assistance provided for a given location;

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Box III.9. The new system of incentives for investors in Poland (concluded)

- A subsidy not exceeding the value of %4,000 per job for the creation of new employment; and
- A subsidy of up to %1,150 per employee for the training of the workers hired.

For the host communities, these include:

- Assistance in the creation or improvement of the physical infrastructure to support the investment made by the investor.

The details of financial support to individual projects are spelt out in agreements concluded between the Ministry of the Economy and the investor, or the investor and the host community. Each agreement lays down the obligations of the investor and/or the community, in particular the location and value of the investment, the timetable of the project, the number of persons employed and training courses. The agreement also determines the amount and timing of the financial support, and the circumstances under which assistance is to be repaid by the investor. Cumulative assistance provided to an individual enterprise under various titles cannot exceed the stipulated ceiling on allowable State aid.

Source: UNCTAD, based on information provided by the Ministry of Economy of Poland.

Box III.10. Toyota/PSA's investment in the Czech Republic

Toyota and PSA have agreed jointly to develop and produce small cars in the Czech Republic, aiming at a low-price niche. The joint-venture partners had visited and pre-selected various industrial sites in the Czech Republic, Hungary and Poland in the second half of 2001 before settling on Kolin in the Czech Republic. The plant they have started building will be the biggest greenfield investment in the Czech Republic since the start of the country's transition to a market system. Total investment, including research, development and start-up costs, will be about $1.5 billion. The Kolin car plant is scheduled to start producing in 2005. Once operational, it is expected to employ 3,000 people and produce some 300,000 cars per year. An additional 7,000 jobs are expected to be created in service and supply firms.

The Czech Republic has succeeded in attracting this project partly by virtue of its geographical position within Europe, skilled engineers, relatively developed infrastructure and advantageous labour costs, as well as its competitive system of incentives introduced in 1998 (*WIR98*, p. 289). The authorities in

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Box III.10. Toyota/PSA's investment in the Czech Republic (concluded)

the Czech Republic hope that with the entry of Toyota and PSA the country will become the car assembly centre and automotive supply hub for countries poised to enter the EU. Toyota and PSA would also introduce competition in a market so far largely dominated by the incumbent local producer, Skoda Auto (an affiliate of Volkswagen), which employs 24,000 people in the Czech Republic, produces 7 per cent of GDP and 10 per cent of national exports. For the large supplier network currently serving mainly Skoda Auto (more than half of the world's 50 leading suppliers have facilities in the Czech Republic) or exporting to the European continent, the Toyota/PSA plant may offer a new supply outlet. Local suppliers, however, would have to compete with other suppliers in Western Europe. Both PSA and Toyota have substantial, non-labour-intensive, advanced supplier networks around their plants in Western Europe, consisting of firms not yet present in the Czech Republic. However, these suppliers may not transfer any business to the Czech Republic unless the orders exceed their current capacities in Western Europe.

Source: UNCTAD, based on CzechInvest, 2002; Carey, 2002; and Anderson, 2002.

FDI inflows to the *Russian Federation* declined for the second year in succession in 2001, despite the attractiveness of that country's natural resources and high GDP growth, reflecting continued difficulties in the domestic business environment. In *Hungary*, robust GDP growth spurred a surge of FDI (by about 40 per cent), the highest inward FDI flow since its privatization programme ended in 1998. Most of the inflows to Hungary took place in the form of associated FDI, including investments by suppliers to foreign affiliates in the automotive and electronics industries (Ernst & Young, 2002). In *Slovakia*, FDI inflows declined somewhat after a privatization-related peak in 2000. Slovakia's inflows in 2001 were, nevertheless, the second highest since the start of that country's transition to a market economy.

Most of the other countries in the region saw their FDI inflows grow in 2001, helped by stability and above-average growth rates in the region,[44] as well as ongoing privatization in some latecomer countries and some industries. *Slovenia*, for example,

opened such key industries as telecommunications and banks to foreign investors in 2001. Some of the highest FDI growth in the region, however, reflects the very low levels in 2000, for some countries (*Yugoslavia, the Former Yugoslav Republic of Macedonia, Belarus, Bosnia* and *Herzegovina*). On the other hand, notable exceptions to the FDI growth trend were observed in *Bulgaria* and *Latvia*.

Parallel with the surge of FDI inflows, their share in the gross fixed capital formation of the region reached high levels by the end of the 1990s, exceeding 25 per cent in 1999. This increase was particularly high in 1996-1999 (annex figure B.5). In terms of FDI inflows relative to gross fixed capital formation Bulgaria, Croatia, the Czech Republic, Estonia, Lithuania, Latvia and the Republic of Moldova were the regional leaders in 1998-2000 (figure III.29). These high ratios reflect the small size of the national economies, due either to small populations (e.g. the Baltic states) or very low GDP levels per capita (e.g. Bulgaria and the Republic of Moldova). The Czech Republic is a notable exception, its high ratio reflecting mainly the high inflows it has received.

The steady performance of many CEE countries in attracting inward FDI in 2001 means that the majority of these countries

Figure III.29. Central and Eastern Europe: FDI flows as a percentage of gross fixed capital formation, top 10 countries, 1998-2000[a]
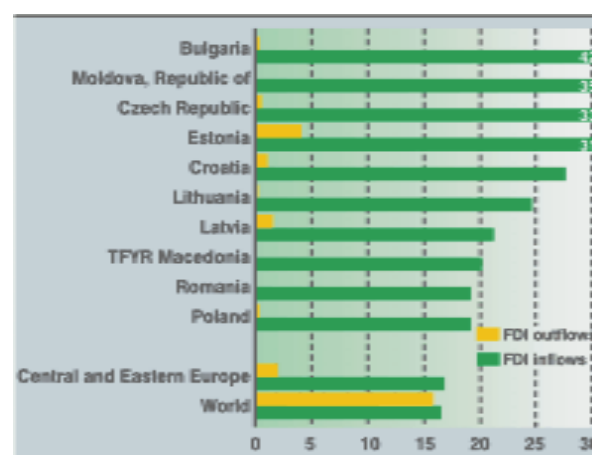
(Percentage)

Source: UNCTAD, FDI/TNC database.

[a] Ranked on the basis of the magnitude of 1998-2000 FDI inflows as a percentage of gross fixed capital formation.

continue to keep their position as high-potential, high-performance recipients of FDI (chapter II), while others, such as Slovenia, may be poised to move out of their present positions into that group. Of the 17 CEE countries covered by UNCTAD's Inward FDI Performance and Inward FDI Potential indices, nine countries were already front-runners in the early phase of transition (1992-1994), combining high FDI potential with high FDI performance.[45] With the exception of the Republic of Moldova, these countries combined a favourable geographical location (closeness to Western European markets) with good initial conditions for transition (EBRD, 2000). Three countries were below-potential recipients (low performance despite high potential),[46] and two countries (Romania and the Former Yugoslav Republic of Macedonia) were under-performers (low potential combined with low performance). With the exception of Slovenia, the two latter groups were characterized by greater geographical distance from Western European markets and difficult initial conditions for transition (EBRD, 2000).

At the end of the millennium, the number of front-runners remained the same: nine. The composition of this group was fairly stable: only Bulgaria joined it as a newcomer, while the Republic of Moldova moved out into the group of above-potential economies. The above-potential group lost Albania but gained, besides the Republic of Moldova, Romania and the Former Yugoslav Republic of Macedonia. The fact that most of the newcomers are south-east European countries indicates a gradual shift in the geography of FDI towards that subregion. At the other end of the spectrum, the group of below-potential economies was reduced to three: Belarus, the Russian Federation and Slovenia.

A more detailed analysis of UNCTAD's indices of Inward FDI Performance and Potential for six key countries (the Czech Republic, Estonia, Hungary, Poland, Romania and the Russian Federation) (figure III.30) highlights a tendency among all but the Russian Federation towards greater FDI potential over the 1990s. FDI performance shows more divergence. For Estonia and Hungary – countries that took an early lead in attracting privatization-related FDI – the Index fell somewhat as their privatization programmes were nearing completion. In contrast, the performance of Romania, one of the late-privatizing countries, improved by 1998-2000. In the Russian Federation, where privatization with FDI did not take off, the weak performance of 1992-1994 further deteriorated in 1998-2000.

Figure III.30.   The UNCTAD Inward FDI Performance Index and Inward FDI Potential Index for selected countries in Central and Eastern Europe, 1992-1994 and 1998-2000
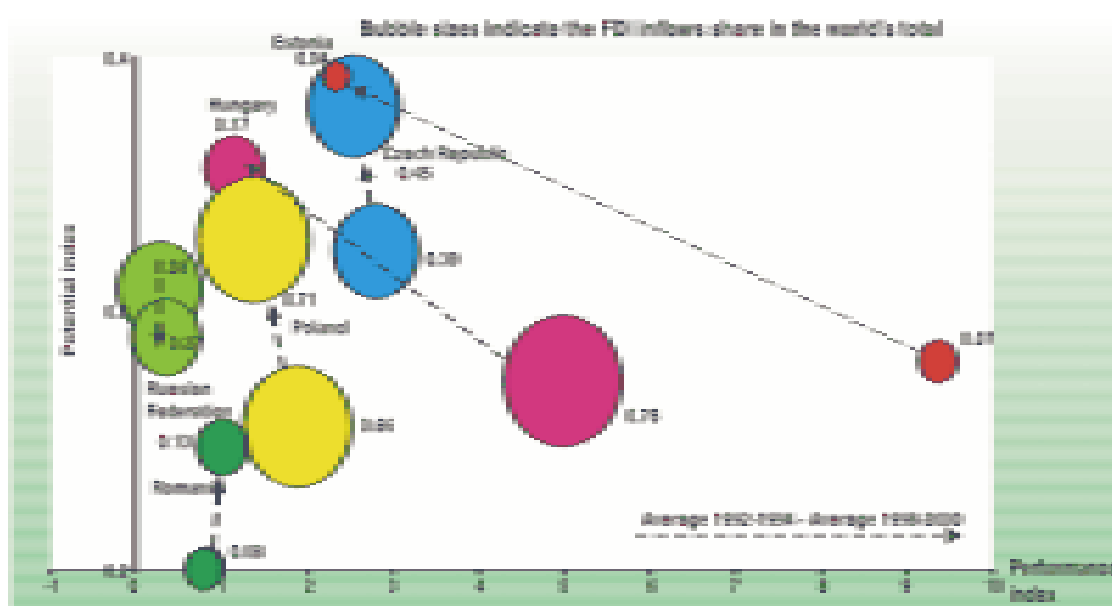
Source: UNCTAD, based on table II.1 and annex table B.1.

Note: As most of the countries in Central and Eastern Europe did not exist before 1992, the period of the FDI Performance Index is adjusted for 1992-1994.

Judging from registered values, FDI *outflows* from CEE declined by 12 per cent in 2001 (figure III.31). The region's share in world FDI outflows for that year was three-fifths of 1 per cent, up slightly from three-tenths of 1 per cent in 2000. The *Russian Federation*, which accounts for almost four-fifths of the FDI from the region, recorded a decrease in outflows in 2001, despite the investment abroad of windfall gains from high oil and gas prices enjoyed by the leading Russian firms.[47] YUKOS, the third largest Russian oil and gas company, acquired the Anglo-Norwegian engineering firm, Kvaerner, as well as a stake in a Slovak pipeline and an oilfield in Kazakhstan. FDI outflows from *Hungary* declined slightly, too, despite the conclusion of a major telecom acquisition by Hungary's MATAV in the Former Yugoslav Republic of Macedonia. A number of other countries (Estonia, Croatia and Slovenia) had strong growth in outward FDI, although from a very low base. Most of these new investments from the smaller countries are directed to neighbouring countries (box III.11; *WIR01*, pp. 37 and 252). In some countries such as Estonia, Hungary and Poland, an important part of outward FDI is carried out by foreign affiliates (e.g. Deutsche Telekom-owned MATAV). Relative to gross fixed capital formation, it is only in Estonia, Hungary and the Russian Federation that the ratio exceeds 3 per cent (figure III.29).

Figure III.31. Central and Eastern Europe: FDI outflows, top 10 economies, 2000 and 2001[a]
(Millions of dollars)

Source: UNCTAD, FDI/TNC database.

[a] Ranked on the basis of the magnitude of 2001 FDI outflows.

Box III.11. The wave of outward FDI from Slovenia

From 1993 to 2001, Slovenia's outward FDI stock more than tripled, from $281 million to $898 million, displaying one of the highest growth rates in CEE. The geography of outward FDI, too, changed. Before independence in 1991, driven by "system-escape" motivations (the need to circumvent the restrictions of the socialist economy), most of the outward FDI of Slovene companies had been directed at developed markets (Svetlicic, Rojec and Lebar, 1994). After 1993, Bosnia and Herzegovina, Croatia, the Former Yugoslav Republic of Macedonia and Yugoslavia, began rapidly to gain importance, with Slovenia becoming one of the most important hubs for investment flows into the reconstruction of south-eastern Europe. Since 1994, according to data from the Bank of Slovenia, all these other countries together account for two-thirds of Slovenia's total outward stock.

This pattern of outward FDI from Slovenia is driven both by pull factors, such as rapid changes in the international environment (especially in south-eastern Europe), and push factors, such as the small domestic market. Indeed, the disintegration of former Yugoslavia, and the temporary loss of its market, pushed Slovene firms to go international in order to survive. Internationalization was largely helped by the traditionally strong ownership advantages of Slovene firms. Most of them had their origins in large and old, but restructured and privatized, companies, although some new and smaller firms also started investing abroad in the 1990s. The fact that "old" firms, which had already started to internationalize in the 1960s and 1970s, are the most transnationalized demonstrates that such early internationalization proved to be instrumental in the subsequent tide of outward FDI. These firms appear to have gained self-confidence from their early experience, which helped them prepare themselves for more demanding forms of international competition. Case studies also demonstrate that these firms have successfully combined knowledge of foreign markets with their own R&D efforts (Jaklic and Svetlicic, 2002). They typically have above-average and fast-growing R&D expenditures and high-skilled labour intensity. Outward investors represent less than 2 per cent of the total corporate sector in terms of number of firms; they, nevertheless, provide 30 per cent of employment and produce 40 per cent of exports (Jaklic and Svetlicic, 2002).

The internationalization of Slovene firms is driven mainly by market-seeking and first-mover motives. Apart from technological

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advantages, they possess specific know-how about how to do business in the other countries of former Yugoslavia. Slovenian firms can easily re-establish their previous business networks and build on the fact that their products and brand names are well known there. They are also aware that such advantages risk erosion over time if they do not move (back) into those markets fast enough. In turn, labour-cost motives have played only a minimal role in the expansion of Slovene firms into countries of former Yugoslavia. This may be because so far few of them have located manufacturing capacities there. Their affiliates focus, instead, on downstream services such as marketing and distribution.

For many Slovene firms, other countries formerly part of Yugoslavia serve as a springboard for wider transnationalization. The average outward investing Slovene firm has 4.4 affiliates, a number already slightly higher than that of firms in a number of those countries. The most transnationalized firms have over 20 affiliates worldwide.

One of the most important lessons from the Slovene case concerns the way firms from that county have used internationalization as an instrument to get out of a situation that combined the loss of previous markets with the crisis of transition. Internationalization has proved to be more useful as a leverage for survival than seeking protection from the Government.

Source: UNCTAD, based on Jaklic and Svetlicic 2002, and Svetlicic et al., 1994.

D. The least developed countries[48]

FDI inflows to the 49 least developed countries (LDCs) are small in absolute terms. (It should be noted that no systematic data exist on non-equity linkages between domestic firms in LDCs and TNCs.) Nevertheless, they often make a contribution to local capital formation. The share of FDI flows in gross domestic capital formation during 1998-2000 averaged 7 per cent for LDCs as a group, compared to 13 per cent for all other developing countries (figure III.32), and it is significantly higher in a number of countries within the LDC group. FDI in the LDCs rose from an annual average of $0.6 billion during 1986-1990 to an annual average

of $3.7 billion during 1996-2000. If the group of LDCs is split into major oil-exporting countries (Angola, Equatorial Guinea, the Sudan and Yemen) and other LDCs, the picture changes. In the first group, FDI inflows rose from an annual average of $49 million during 1986-1990 to an annual average of $1.2 billion during 1996-2000, and to $1.6 billion in 2001. The share of the four oil exporters rose from less than 10 per cent during 1986-1990 to some 40 per cent by 2001. The respective figures for the other LDCs are $0.6 billion, $2.5 billion and $2.3 billion.

Figure III.32. LDCs: FDI inflows as a percentage of gross fixed capital formation, top 10 countries, 1998-2000[a]
(Percentage)
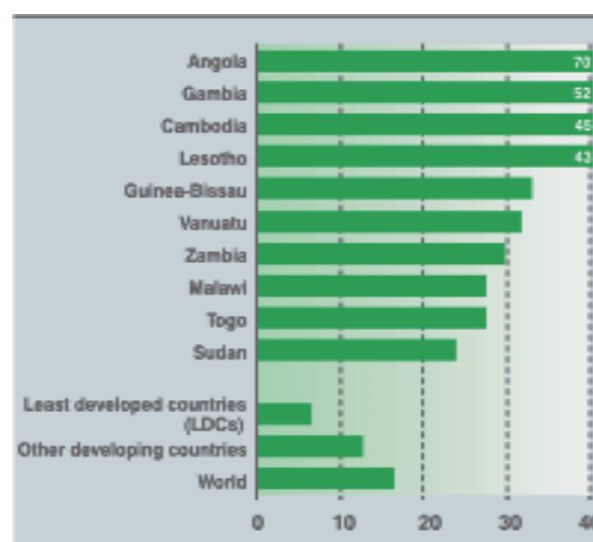
Source: UNCTAD, FDI/TNC database.

[a] Ranked on the basis of the magnitude of 1998-2000 FDI inflows as a percentage of gross fixed capital formation.

In 2001, despite the general slowdown, FDI in LDCs as a group rose slightly to $3.8 billion, mainly on account of increased flows to Angola (figure III.33), but it was lower than its peak of 1999 ($5.4 billion). Overall, however, the share of LDCs in total FDI flows to developing countries has declined over time, from 2.3 per cent in 1986-1990 to 1.8 per cent during 1996-2000, although it rose slightly in 2001 (figure III.34).

These average figures hide large variations. For example, 16 of the 49 LDCs attracted more FDI relative to gross domestic capital formation than the average developing country (figure III.32 and annex table B.5).

FDI in 21 LDCs grew faster than 20 per cent per annum, and in another seven at between 10 and 20 per cent (table III.6). Individual performance differed greatly over the period 1986-2001 (or the period for which the data are available): Burundi, at one extreme, saw a decline of 22 per cent, while Uganda, at the other, saw an increase of 99 per cent. In Sierra Leone and Yemen, divestment has exceeded new FDI for the past several years. In contrast, FDI has increased rapidly in countries such as Bangladesh, Equatorial

Guinea, Ethiopia, Lesotho, Mozambique, Myanmar, the Sudan, and the United Republic of Tanzania. In particular, the United Republic of Tanzania experienced a dynamic growth in FDI inflows in the 1990s (box III.12). Angola was the largest recipient among LDCs in most of the years during 1986-2001, attracting FDI inflows almost equal to those of Peru in 2001.

Clearly, some LDCs have the potential to attract more FDI. According to UNCTAD's Inward FDI Performance and Potential Indices, eight out of the 25 LDCs for which these indices are constructed are above-potential economies, with a higher rank for performance than for capacity (figure III.35). Of these, several (e.g. Angola, Mozambique, Uganda and Zambia) are resource-rich countries. However, 17 of the 25 LDCs rank as under-

Figure III.33. LDCs: FDI inflows, top 10 countries, 2000 and 2001[a]
(Millions of dollars)
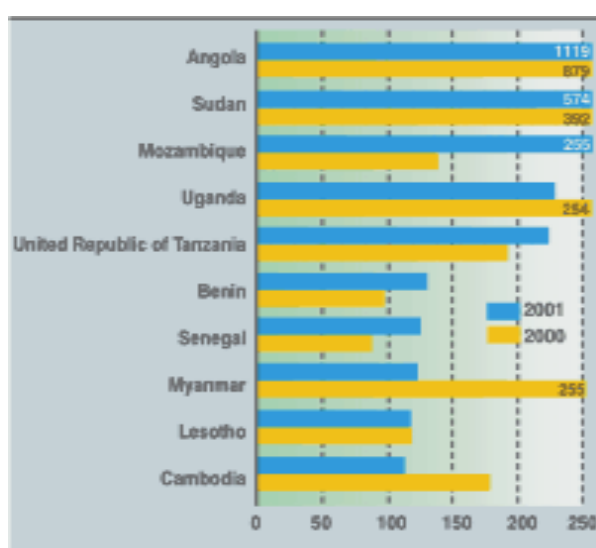
Source: UNCTAD, FDI/TNC database.

[a] Ranked on the basis of the magnitude of 2001 FDI inflows.

Figure III.34. LDCs: FDI inflows and their share in the world inflows and developing-county inflows, 1986-2001[a]
(Billions of dollars and percentage)
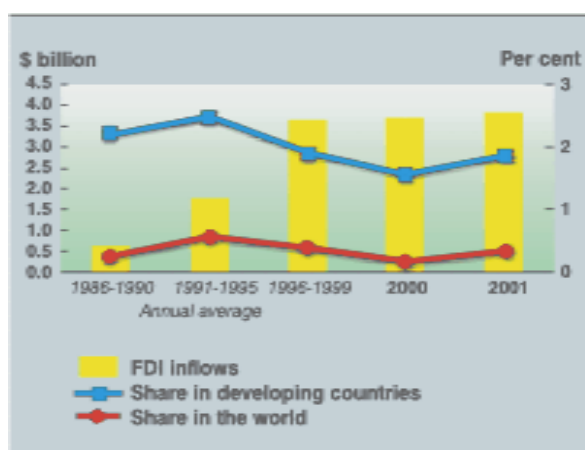
Source: UNCTAD, FDI/TNC database.

Table III.6. Annual average FDI growth rates in LDCs, 1986-2001
(Per cent)

Growth rates	Country	
More than 20%	Angola	Lesotho
	Bangladesh	Malawi[a]
	Benin	Mali[c]
	Burkina Faso	Mozambique
	Cape Verde[a]	São Tomé and Principe[d]
	Djibouti	Senegal[c]
	Equatorial Guinea	Sudan[a]
	Ethiopia[b]	Togo
	Gambia[a]	Uganda[c]
	Guinea-Bissau	United Republic of Tanzania[c]
	Lao People's Democratic Republic[c]	
10-19.9%	Afghanistan[a]	Madagascar
	Chad	Maldives
	Congo, Democratic Republic of	Myanmar[e]
	Kiribati	
0-9.9%	Cambodia	Samoa[a]
	Guinea	Vanuatu
	Nepal	Zambia
Decline	Bhutan[b]	Niger
	Burundi	Rwanda
	Central African Republic	Sierra Leone[a]
	Comoros[a]	Solomon Islands
	Eritrea[d]	Somalia
	Haiti	Tuvalu[f]
	Liberia	Yemen
	Mauritania	

Source: UNCTAD, FDI/TNC database.

[a] Annual average growth rate from 1987-2001.
[b] Annual average growth rate from 1990-2001.

[c] Annual average growth rate from 1988-2001.

[d] Annual average growth rate from 1996-2001.

[e] Annual average growth rate from 1989-2001.

[f] Annual average growth rate from 1994-2001.

performers in the UNCTAD indices. None falls into the category of front-runner or below-potential economies. Between 1988-1990 and 1998-2000, the Performance Index improved significantly for such LDCs as Angola, Mozambique and the Sudan, while it deteriorated for Niger, Rwanda, and Sierra Leone (table II.1). FDI potential improved in Mozambique and Yemen, but performance declined in the latter (figure III.36).

Box III.12. The United Republic of Tanzania: harnessing FDI for development

The United Republic of Tanzania is a new entrant in the FDI field. Its efforts to harness FDI to its development process date back nominally to 1985, when the country decided to initiate the process of transition from a centrally-planned to a market-based economy. However, it was only in the second half of the 1990s – when the economic situation improved, the privatization programme began in earnest, market-oriented reforms reached a critical mass, and sound foundations for an enabling framework for FDI (including especially the Tanzania Mining Act, considered "the best of its kind") were put in place – that foreign investors responded. During 1995-2000, the United Republic of Tanzania received a total of $1 billion in FDI, compared to $90 million during the preceding six years (annex table B.1). This is a remarkable performance for a country that was receiving hardly any FDI just 10 years ago.

The acceleration of inflows between 1992 and 1996 considerably improved the country's FDI performance relative to other LDCs which have also worked hard to receive more FDI but, with a few exceptions, have not been very successful. The United Republic of Tanzania has, furthermore, improved its position vis-à-vis neighbouring countries. Overall, during 1995-2000, it received inflows comparable to those of Uganda ($1.1 billion) and Mozambique ($0.9 billion), both included by *WIR98* among the seven front-runners in Africa in FDI performance. After 1996, however, although growing in absolute terms, annual inflows into the United Republic of Tanzania did not keep pace with the inflows into LDCs, sub-Saharan Africa or neighbouring countries (except for poorly-performing Kenya), and Tanzania lost some of the gains of the mid-1990s.

The largest sector for FDI in the United Republic of Tanzania is mining, and the largest single industry is gold. At the end of 1998, cumulative FDI in mining was estimated at $370 million. This suggests a share of mining in cumulative FDI inflows of above 50 per cent. Judging from data on *total investments* in major foreign affiliates, most of which were established during 1997-2000, the sectoral composition of the largest projects is: mining (65 per cent), services (19 per cent), and manufacturing (16 per cent). The largest source of FDI in the country is the United Kingdom, followed by the United States, Ghana and South Africa.

As FDI inflows have increased, the qualitative impact of FDI on the economy has also become noticeable, especially in the industries in which FDI is concentrated. In mining, FDI has served as an engine of growth and has helped increase gold exports. In banking, it has contributed to the modernization of the industry. Foreign investors have restructured privatized enterprises, boosting their competitiveness. They have typically contributed to the transfer of technology and skills. Although the impact is strongest in the industries in which FDI is concentrated, it has implications for the entire economy. Noticeable overall impacts of FDI include a contribution to the inflow of external resources (15 per cent in 1998); a change from a negative to a positive contribution to the balance of payments; the contribution of foreign affiliates to overall exports and inflows of hard currency from tourism; an increased share of FDI in capital formation, and thus growth; and the diversification of the economy away from agriculture towards mining and services.

These positive impacts – which hardly existed until the mid-1990s go some way towards achieving the country's FDI objectives. The objectives are, among others, "to increase the share of foreign direct investment in total external resource inflows" and "to invest in export areas in which Tanzania has comparative advantage". (Tanzania Planning Commission, 1996, pp. 16-17). However, the scale of these impacts is still small and a number of desired impacts are not occurring (such as linkages to the local economy or the encouragement of local science and technology capacities).[a] Thus, after initial successes with FDI, the challenge for the United Republic of Tanzania is now to push FDI to new frontiers, to attract higher levels of FDI inflows than those received in the second half of the 1990s, and to increase the scale and scope of the benefits of these inflows to its economy.

Source: UNCTAD, 2002c.

[a]   These objectives were stated in the Planning Commission's 1996 National Investment Promotion Policy document.

Figure III.35.   LDC rankings based on the UNCTAD Inward FDI Performance and Potential Indices, 1998-2000
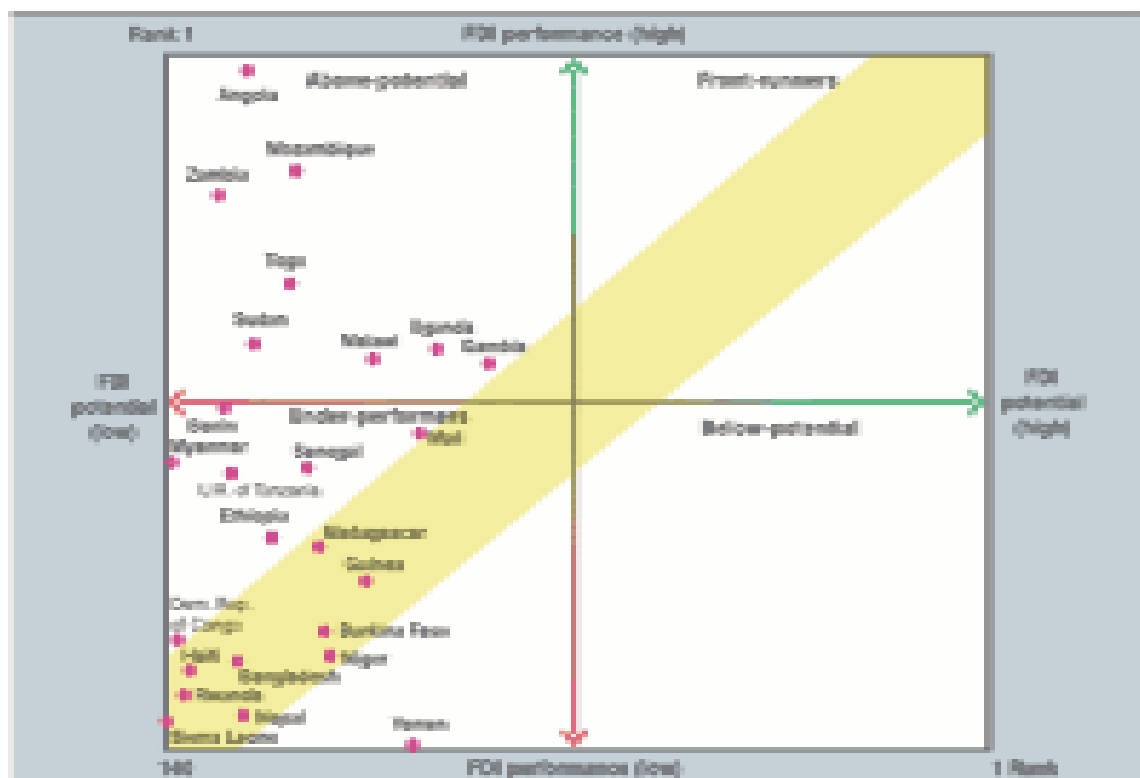
Source: UNCTAD.

Note: The width of the band is 20 ranks around the 45 degree line.

Figure III.36.   The UNCTAD Inward FDI Performance Index and Inward FDI Potential Index for selected LDCs, 1988-1990 and 1998-2000
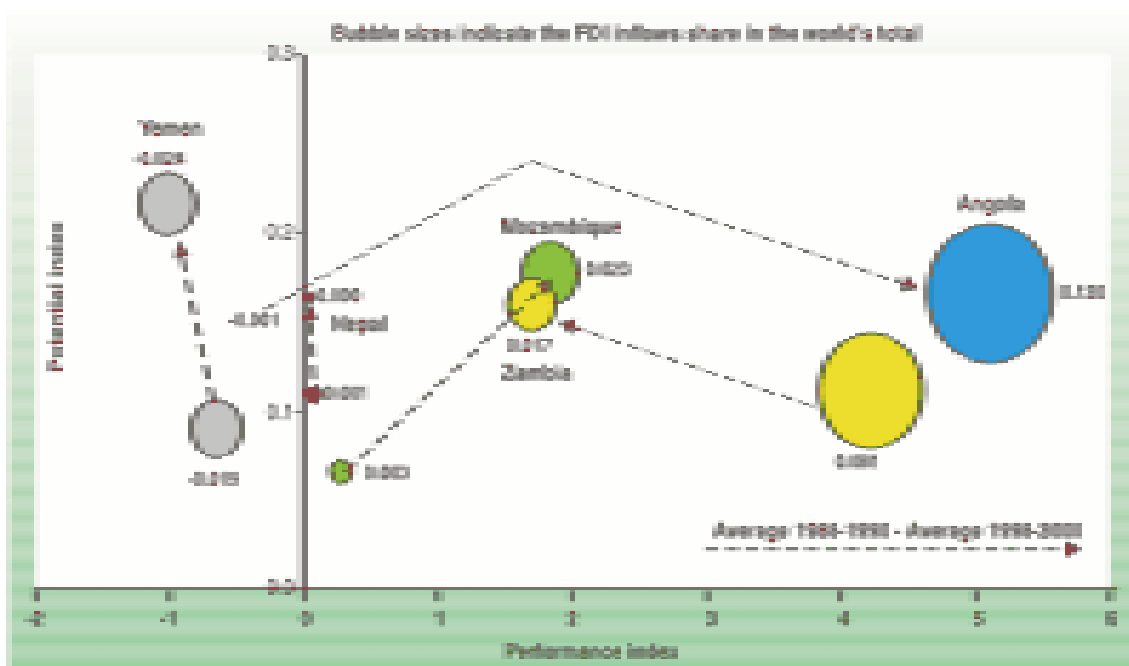

Source: UNCTAD, based on table II.1 and annex table B.1.

The structure of external financial flows to LDCs changed in the 1990s. Official development assistance (ODA) remained the largest component,[49] but declined in absolute and relative terms between 1995 and 2000. LDCs as a whole received $12.5 billion in bilateral and multilateral ODA in net terms in 2000, compared to $16.8 billion in 1990. The amount of bilateral ODA declined from $9.9 billion to $7.7 billion during this period (figure III.37). FDI, on the other hand, became more prominent: in 28 LDCs FDI increased, while bilateral ODA decreased during the 1990s (table III.7). But only in seven LDCs (Angola, Equatorial Guinea, the Gambia, Lesotho, Myanmar, the Sudan and Togo), did FDI inflows exceed bilateral ODA in 2000 and three of them are major oil exporters. Thus most LDCs must rely on ODA as their major source of finance.

FDI flows into LDCs are also highly concentrated, though the share of the top five recipients is lower now than it was in the late 1980s. In the period 1986-1990, the top five recipient countries accounted for 78 per cent of FDI inflows; by 1996-2001, their share had declined to 55 per cent.[50] The bulk of FDI in LDCs (more than 90 per cent) is through greenfield investments. Only a few (notably the United Republic of Tanzania and Zambia) have recorded

Figure III.37. FDI inflows and ODA flows to LDCs, 1985-2001
(Billions of dollars)
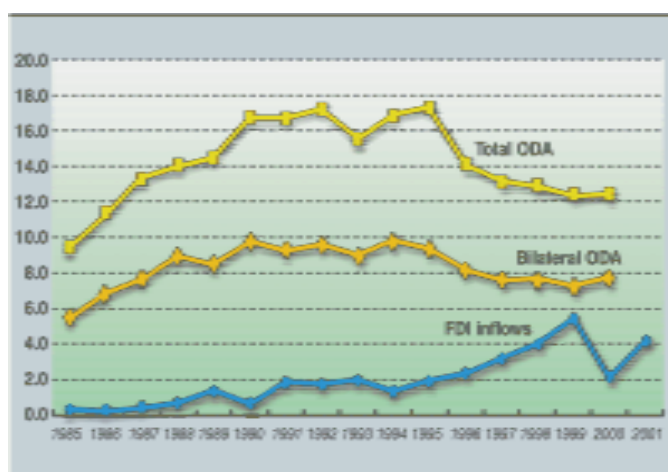
Source: UNCTAD, FDI/TNC database and OECD Development Assistance Committee, International Development Statistics, online databases.

Table III.7. Growth trends [a] in FDI and bilateral ODA flows, 1990-2000

ODA (+)

Angola
Cambodia
Haiti
Lao People's
   Democratic Republic
Benin   Madagascar
Bhutan   Malawi
Eritrea   Maldives
Sierra Leone   Uganda

FDI (-)   **FDI (+)**

Liberia   Afghanistan
Mauritania   Bangladesh
Niger   Burkina Faso
Rwanda   Burundi
Samoa   Cape Verde
Solomon Islands   Central African Republic
Somalia   Chad
Tuvalu   Comoros
Yemen   Democratic Republic
                     of the Congo
Djibouti
                  Equatorial Guinea
                  Ethiopia
                  Gambia
                  Guinea
                  Guinea-Bissau
                  Kiribati
                  Lesotho
                  Mali
                  Mozambique
                  Myanmar
                  Nepal
                  Sao Tome and Principe
                  Senegal
                  Sudan
                  Togo
                  United Republic of Tanzania
                  Vanuatu
                  Zambia

ODA (-)

Source: UNCTAD, FDI/TNC database and OECD Development Assistance Committee, International Development Statistics, online databases.

[a] Calculated as the slope of the linear regression for FDI and ODA flows between 1990 and 2000.

M&As of any significance since 1987 (figure III.38). Some deals have not involved local firms but only foreign affiliates. For example, the second largest M&A in LDCs so far has been the $260 million acquisition of Texaco Inc-Yetagun Natural in Myanmar[51] by Premier Oil Plc from the United Kingdom in 1997 (annex table A.III.1).

The limited extent of M&As in LDCs partly reflects the nature of their privatization programmes. Many LDCs have now enacted new

Figure III.38. FDI inflows, cross-border M&A sales and privatizations in LDCs, 1987-2001
(Billions of dollars)
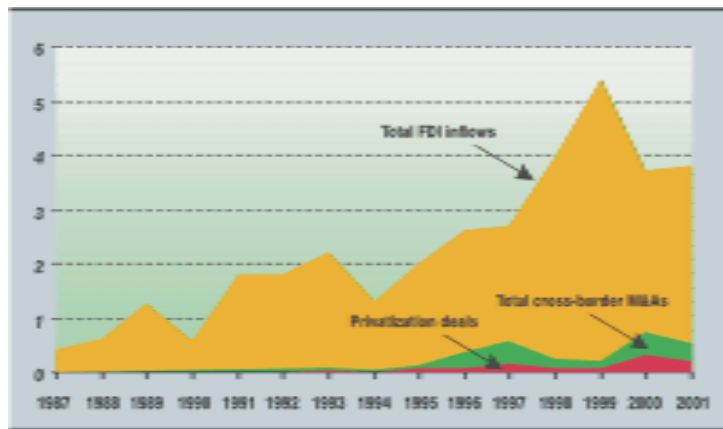
Source: UNCTAD, FDI/TNC database and cross-border M&A database.

Note: Cross-border M&As (as well as privatizations) include purchases financed via both domestic and international capital markets that are not categorized as FDI. Furthermore, M&A data are expressed as the total transaction amounts of particular deals at the time of closure of the deals. Therefore, there is no direct relationship between FDI and cross-border M&As.

or revised legislation allowing foreign investors to participate in privatization. Examples are Mauritania, Nepal, the United Republic of Tanzania, Uganda and Zambia (UNCTAD, 2000c; UNCTAD and ICC, 2001; United States, Commercial Services, 1999, 2001a,b,c).

Owing to proximity and history, TNCs from Western Europe have been more active in African LDCs than those from the United States and Japan (UNCTAD, 1999a). Japanese FDI to African LDCs has mainly been motivated for tax reasons: "flag-of-convenience" investment in shipping in Liberia accounts for some three-fourths of all Japanese FDI in Africa. In the Asian LDCs, in contrast, there is considerable intraregional FDI. Firms from Malaysia, Singapore and Thailand are major investors in Cambodia, the Lao People's Democratic Republic and Myanmar. Malaysia accounted for more than one-third of the FDI stock in Cambodia in 1997, Thailand for 35 per cent of the FDI stock in the Lao People's Democratic Republic in 1999, and Singapore and Thailand together for 39 per cent of the FDI stock in Myanmar in 1998.

There is limited information on the *sectoral breakdown* of FDI in LDCs. Countries for which data are available[52] show a broad industry distribution. In the Solomon Islands, for example, most FDI

goes into the fisheries industry. In the Lao People's Democratic Republic, FDI has gone mainly into agricultural production. The petroleum sector dominates FDI in a few LDCs, including Angola. While manufacturing is the largest sector for FDI in Cambodia and Uganda, the services sector accounts for the largest share of inward FDI stock in Cape Verde and Nepal. In Ethiopia, the largest recipient is the hotel industry.

The largest foreign affiliates in LDCs are spread across host countries and industries. Large financial affiliates are rare in LDCs; with the exception of a few resource-based companies, most foreign affiliates are small by international standards (annex table A.III.2). The geographical breakdown of the largest foreign affiliates in LDCs by home country shows the dominance of investors from France, Japan and the United Kingdom.

LDCs have improved their investment climate at the national, bilateral and multilateral levels. At the *national* level, most of them now have legislation in place offering a range of guarantees to foreign investors. Many LDCs have liberalized FDI regulations, and no longer discriminate between foreign and domestic investors. They allow profit repatriation and protection against expropriation, and offer incentives and stronger standards of treatment to foreign investors. Indeed, all the changes made in 2001 to the national regulatory frameworks in LDCs[53] were in the direction of liberalization.

At the *bilateral* level, by the end of 2001, 41 LDCs had concluded 292 bilateral investment treaties (BITs) for the protection and promotion of foreign investment, of which 126 were in the 1990s (figure III.39). There were 138 BITs with developed countries (36 during the 1990s) and BITs with other developing countries grew rapidly, from 10 at the end of the 1980s to 126 by the end of 2001. LDCs have also begun to conclude BITs among themselves: 17 had been concluded by the end of 2001.

In addition, 33 LDCs had entered into 138 double taxation treaties (DTTs) by the end of 2001 (39 during the 1990s,

figure III.39). Of these, 90 were with developed countries, 41 with other developing countries, 4 with countries of Central and Eastern Europe and 3 between LDCs themselves. The pace of concluding DTTs has not picked up in recent years, in contrast with BITs (figure III.39).

LDCs are participating more in *multilateral agreements* having a bearing on investment (table III.8). As of June 2002, 20 LDCs had acceded to the Convention on the Recognition and Enforcement of Foreign Arbitral Awards, and 37 LDCs had ratified or signed the Convention on the Settlement of Investment Disputes between States and Nationals of Other States. The ICSID Convention provides access to its arbitration mechanism for investment disputes. There are now 34 LDCs that are full members of the Multilateral Investment Guarantee Agreement (MIGA), and six are in the process of fulfilling membership requirements. In addition, 30 of the LDCs have become members of the WTO. They are thus parties to the three main agreements bearing on investment: the Agreement on Trade-related Investment Measures (TRIMs), the General Agreement on Trade in Services (GATS) and the Agreement on Trade-related Aspects of Intellectual Property Rights (TRIPS). Another 11 have observer status in the WTO. This brings LDCs in line with international principles and standards on trade, investment and intellectual property rights protection, while allowing them to enjoy special treatment by reason of their development status (UNCTAD, 2000d).

Figure III.39. BITs and DTTs concluded by LDCs, 1990-2001
(Cumulative number)
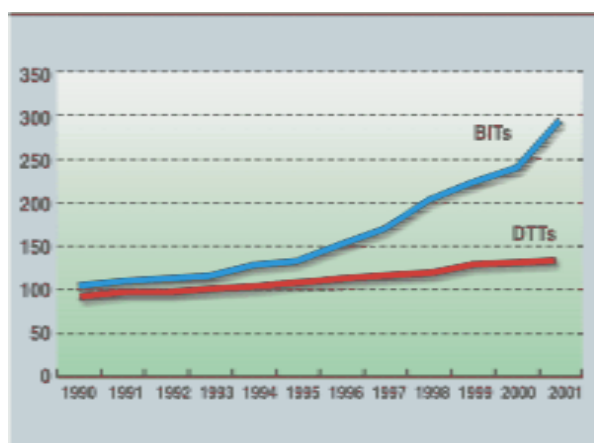
Source: UNCTAD, on the basis of the country tables and UNCTAD BITs and DTTs databases.

LDCs have been promoting inward FDI more actively: 38 countries had established investment promotion agencies (IPAs) by June 2002. Some, like Madagascar and the Sudan, have introduced "one-stop windows" to simplify procedures and facilitate the entry of foreign investors. And 28 LDCs have joined the World Association of Investment Promotion Agencies (WAIPA), which promotes cooperation among IPAs on a regional and global scale, to share experiences and help IPAs with technical assistance and training (table III.9; WAIPA, 2001).

International organizations like UNCTAD help countries to attract FDI and harness it to their development objectives. UNCTAD undertakes in-depth Investment Policy Reviews to help improve national FDI regimes (box III.13). It also assists LDCs in negotiating BITs and DTTs, and has facilitated 42 such agreements (box III.14). Jointly with the International Chamber of Commerce (ICC), UNCTAD has also been producing investment guides for LDCs, to ensure that reliable information on investment opportunities and conditions reaches potential investors (box III.15).

A growing number of LDCs recognize the role that FDI can play in providing inputs other than finance: the skills, knowledge, technology and access to international markets it offers to promote growth and reduce poverty. Many LDCs have improved their investment regimes but this has not proved sufficient to attract enough FDI. While FDI to LDCs has increased, it has not kept pace with the flows to other developing countries. Private capital inflows have been increasing more slowly than official flows have been declining, which means that LDCs' access to foreign savings has been declining. Moreover, the sustainability of recent increases in FDI flows to LDCs remains a matter of concern.

Efforts are needed to ensure that FDI flows to LDCs not only continue to grow, but are also upgraded to increase their developmental impact. The international community can play a role here, by ensuring that investment opportunities are communicated to corporate executives and by helping LDCs enhance their attractiveness to investors. And, in particular, ODA flows to LDCs need to increase, as FDI is not a substitute for ODA; the characteristics and functions of both are different. Complementarities between the two types

Table III.8. LDC signatories to main international investment-related instruments, as of June 2002

Country	CREFAA[a]	ICSID[b]	MIGA[c]	TRIMs[d]	GATS[e]	TRIPs[f]
Afghanistan		√	g			
Angola			√	√	√	√
Bangladesh	√	√	√	√	√	√
Benin	√	√	√	√	√	√
Bhutan				h	h	h
Burkina Faso	√	√	√	√	√	√
Burundi		√	√	√	√	√
Cambodia	√	i	√	h	h	h
Cape Verde			√	h	h	h
Central African Republic	√	√	√	√	√	√
Chad		√	√	√	√	√
Comoros		√				
Democratic Republic of the Congo		√	√	√	√	√
Djibouti	√			√	√	√
Equatorial Guinea			√			
Eritrea			√			
Ethiopia		i	√	h	h	h
Gambia		√	√	√	√	√
Guinea	√	√	√	√	√	√
Guinea Bissau		i	g	√	√	√
Haiti	√	i	√	√	√	√
Kiribati						
Lao People's Democratic Republic	√		√	h	h	h
Lesotho	√	√	√	√	√	√
Liberia		√	g			
Madagascar	√	√	√	√	√	√
Malawi		√	√	√	√	√
Maldives				√	√	√
Mali	√	√	√	√	√	√
Mauritania	√	√	√	√	√	√
Mozambique	√	√	√	√	√	√
Myanmar				√	√	√
Nepal	√	√	√	h	h	h
Niger	√	√	g	√	√	√
Rwanda		√	g	√	√	√
Samoa		√	√	h	h	h
Sao Tome and Principe		i		h	h	h
Senegal	√	√	√	√	√	√
Sierra Leone		√	√	√	√	√
Solomon Islands		√	g	√	√	√
Somalia		√				
Sudan		√	√	h	h	h
Togo		√	√	√	√	√
Tuvalu						
Uganda	√	√	√	√	√	√
United Republic of Tanzania	√	√	√	√	√	√
Vanuatu			√	h	h	h
Yemen		i	√	h	h	h
Zambia	√	√	√	√	√	√

Source: UNCTAD.

[a] Convention on the Recognition and Enforcement of Foreign Arbitral Awards.
[b] Convention on the Settlement of Investment Disputes between States and Nationals of other States.
[c] Convention Establishing the Multilateral Investment Guarantee Agency.
[d] Agreement on Trade-related Investment Measures.
[e] General Agreement on Trade in Services.
[f] Agreement on Trade-related Aspects of Intellectual Property Rights.
[g] Countries in the process of fulfilling membership requirements of MIGA.
[h] Observer status in the WTO.
[i] Signed but not ratified.

Table III.9. Existence of investment promotion agencies in LDCs, as of June 2002

Country	IPA	Member of WAIPA
Afghanistan		
Angola	√	√
Bangladesh	√	√
Benin	√	√
Bhutan		
Burkina Faso		
Burundi		
Cambodia	√	
Cape Verde	√	√
Central African Republic	√	
Chad	√	
Comoros		
Democratic Republic of Congo	√	√
Djibouti	√	√
Equatorial Guinea		
Eritrea	√	
Ethiopia	√	√
Gambia	√	√
Guinea	√	√
Guinea-Bissau		
Haiti	√	√
Kiribati	√	√
Lao People's Democratic Republic	√	
Lesotho	√	√
Liberia	√	
Madagascar	√	
Malawi	√	√
Maldives	√	√
Mali	√	√
Mauritania	√	√
Mozambique	√	
Myanmar	√	
Nepal	√	√
Niger	√	√
Rwanda		
Samoa	√	√
Sao Tome and Principe		
Senegal	√	√
Sierra Leone	√	√
Solomon Islands	√	√
Somalia		
Sudan	√	√
Togo	√	
Tuvalu		
Uganda	√	√
United Republic of Tanzania	√	√
Vanuatu	√	√
Yemen	√	√
Zambia	√	√

Source: UNCTAD, information obtained from WAIPA.

of capital flows need to expand in order to maximize their developmental impact. A number of the measures proposed in the LDC Programme of Action, adopted in May 2001 at the Third United Nations Conference on the Least Developed Countries (UNCTAD, 2002b), are of relevance in this respect and should be actively pursued.

Box III.13. UNCTAD's Investment Policy Reviews

Many LDCs have significantly liberalized their FDI regimes, and Governments are keen to know how well their reforms are working: How much new FDI is coming in and is it of the right kind? Does its impact on the national economy conform with the stated objectives? What more should be done to improve the quantity and quality of inflows? With the dismantling of traditional monitoring systems, policy-makers are often unable to assess the impact of investment measures. UNCTAD's Investment Policy Reviews (IPRs) are intended to fill this void.

IPRs are undertaken by UNCTAD upon requests by Governments. They have been completed for three LDCs (Ethiopia, Uganda and the United Republic of Tanzania) and five other countries (Ecuador, Egypt, Mauritius, Peru and Uzbekistan). As of July 2002, IPRs were in progress in Botswana, Lesotho, Ghana and Nepal. Other LDCs that have requested IPRs include Benin, Cambodia, Mauritania and Mozambique.

The IPRs are funded primarily through extra-budgetary resources. More specifically, individual country projects are funded on a cost-sharing basis by the United Nations Development Programme (UNDP), donor Governments, host Governments and, as appropriate, the local and transnational private sectors (by sponsoring individual workshops or providing in-kind support, such as technical studies or industry experts).

The IPRs are conducted by UNCTAD staff and international and national experts, with inputs from the Government and the private sector. The reviews are discussed in workshops involving public officials and other stakeholders. They are also considered by UNCTAD's Commission on Investment, Technology and Related Financial Issues. The final texts are widely disseminated.

The IPRs have a common format. There are three sections: the country's objectives and competitive position in attracting FDI; the FDI policy framework and administrative procedures; and policy options. The reviews examine how policies affect FDI flows. Since investor response is based on both policy and non-policy factors, a key feature of the reviews is to survey actual investors on how they perceive current investment conditions and opportunities. Potential investors are also surveyed.

Overall, the IPRs assess a country's potential in attracting FDI and the effectiveness
/...

Box III.13. UNCTAD's Investment Policy Reviews (concluded)

of policies in leveraging the competitive strengths of a country. They provide policy recommendations that are concise, practical and geared to implementation by decision-makers. They also include proposals for coherent technical assistance and follow-up. A few countries have already implemented or are in the process of implementing the recommended actions. Mauritius, for example, is finalizing a review of its fiscal incentives regime.

Source: UNCTAD.

Box III.14. BIT negotiations with a focus on LDCs

UNCTAD assists LDCs in the area of BITs by facilitating negotiations between partner countries. Two negotiating events took place in 2001. In the first event, 18 countries (10 LDCs, 6 developing and 2 developed countries) participated in the bilateral negotiations. They were Belgium, Benin, Burkina Faso, Burundi, Cameroon, Chad, Comoros, Egypt, Ghana, Guinea, Madagascar, Malaysia, Mali, Mauritania, Mauritius, South Africa, Switzerland and Zambia. A total of 42 BITs were finalized and initialled, 9 treaties were negotiated, and 22 agreements were signed during the Third United Nations Conference on LDCs in Brussels, in May 2001. Another round for LDCs (Cambodia, Eritrea, Malawi, Mozambique, Uganda and Zambia) was organized to negotiate with Belgium-Luxembourg, France, the Netherlands and Sweden in October 2001. As a result, 13 BITs were concluded. These negotiating events provide LDCs with the opportunity not only to conclude treaties, but also to exchange experiences and compare negotiating approaches.

Source: UNCTAD.

Box III.15. Opportunities and conditions in LDCs: the UNCTAD - ICC Investment Guides

The project on "investment guides and capacity-building for least developed countries" is a collaborative venture by UNCTAD and the International Chamber of Commerce (ICC). Its objective is to bring together parties with complementary interests: firms seeking opportunities and countries seeking investors. This is not always a straightforward exercise, since firms are driven by strategic considerations as much as by locational advantages, and countries have economic and social objectives that transcend attracting foreign investment.

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Box III.15. Opportunities and conditions in LDCs: the UNCTAD - ICC Investment Guides (concluded)

The UNCTAD-ICC guides are intended to serve two purposes at once: to furnish potential investors with an assessment tool and to furnish Governments with a marketing tool. Apart from being clearly structured and attractively presented, these third-party guides offer the critical advantage of credibility. This is underscored by a short concluding chapter that summarizes the perceptions of the private sector already established in the country of its strengths and weaknesses as an investment location.

As of May 2002, guides had been produced for Bangladesh, Ethiopia, Mali, Mozambique and Uganda, and work had started for Cambodia and Nepal. The guides are available on the UNCTAD website and the ipanet.net website of the Multilateral Investment Guarantee Agency (MIGA).

Source: UNCTAD.

Notes

[1] The acquisition of VoiceStream Wireless Corp. by Deutsche Telekom for $29.4 billion was the largest cross-border M&A deal undertaken in 2001 (annex table A.I.2). Cross-border M&As were also important in commercial lending, food industries, banking, insurance, publishing and electronic security.

[2] About 200 leading TNCs were surveyed in July-August 2001 (MIGA, 2002) and were revisited a month after September 11. Similar results were obtained through a survey among 129 TNCs conducted by UNCTAD, Invest in France Agency (AFII) and Andersen, in summer 2001 and updated by telephone interviews in November 2001, according to which the United States emerged as the preferred investment location among developed countries (see UNCTAD, 2001a for the results of this survey). These surveys revealed that the investment plans of the majority of respondents were unaffected by the events of September 11 (box I.1).

[3] Of Banamex by Citigroup for $12.5 billion (annex table A.I.2).

[4] The largest foreign affiliates in services (excluding finance and insurance) in the EU are linked to firms within the region. The exception is Ireland, where the major foreign affiliates in IT-related services are United States-owned (UNCTAD, forthcoming b).

[5] Increases in FDI inflows have continued in 2002, fuelled by announcements of large-scale M&As, such as the acquisition of the agrochemical unit of Aventis by Bayer (Germany) for a reported $6.7 billion. "Bayer confirms CropScience purchase", *Financial Times*, 3 October 2001.

[6] Including the acquisition of Aqua Spring by Perrier Vittel of Nestlé, as well as FDI in telecoms and utilities.

[7] During 2001, 86 foreign investment projects assisted by the Netherlands Foreign Investment Agency (NFIA) were attracted into the country, originating mainly from the United States as in previous years and despite the recession. The majority of investments were IT activities, although investment in manufacturing also took place. While the majority of projects were greenfield investments, there were some follow-up investments as well. Twenty-two European headquarters, 28 European distribution centres, several call centres and shared-services centres, and two new R&D establishments were located in the Netherlands in 2001 (NFIA, 2002).

[8] Cross-border M&A transactions completed in 2001 fell by 62 per cent in value from the previous year's record high, totalling $24.4 billion in 2001. This was unsurprising, since the lion's share of FDI flows traditionally originates in the United States (United Kingdom, National Statistics, 2002).

[9] The FDI inflows and outflows of Belgium and Luxembourg were very modest in 2001 compared with the previous year. The exceptionally high amounts in 2000, however, became evident only after the data were significantly revised to reflect the value of transactions related to a cross-border M&A deal, as the transaction and the related value were determined and reflected in the balance-of-payments statistics only retroactively. On the basis of the revised data, Belgium and Luxembourg became the second largest FDI recipient (behind the United States) and the second largest outward investor worldwide (behind the United Kingdom) in 2000.

[10] Against the background of the largest ever cross-border M&A transaction, the takeover of Mannesmann by VodafoneAirTouch for some $200 billion in 2000, Germany's inflows in 2001 are still above the annual average of the 1995-1998 period.

[11] French TNCs have invested significantly in the United States recently. Vivendi, a former utility company, had acquired media companies for some $50 billion between mid-2000 and end-2001 (*Financial Times*, 21 December 2001). Furthermore, outflows in 2000 were significantly influenced by France Télécom's acquisition of Orange Plc of the United Kingdom. Large cross-border M&As in 2001 include the acquisition of full ownership of Axa Financial Inc. of the United States and Blue Circle Industries in the United Kingdom (annex table A.I.2).

[12] This looks less dramatic when one takes into consideration the exceptionally large outflows generated by the acquisition of Mannesmann by VodafoneAirTouch in 2000, as mentioned earlier.

[13] Including acquisitions of telephone operators in the Mexican market such as Norcel, Cedetel, Bajacel, Movitel, for a total reported value of 2.1 billion euro. In 2002, Telefónica acquired a majority stake in the Mexican mobile operator, Pegasus. "Telefónica avanza en la negociación para adquirir la firma mexicana Pegaso", *El País*, 13 February 2001.

[14] Cross-border M&As by Italian TNCs included the acquisition of LASMO (United Kingdom) by ENI and Euralux (Luxembourg) by Mediobanca for $4.0 billion and $1.1 billion, respectively.

[15] The Government of Iceland has systematically made its business environment more attractive for FDI through a series of tax cuts. The country's corporate income tax of 18 per cent is now among the lowest in Europe. Furthermore, a 5 per cent corporate income tax is applied to companies registered in Iceland as International Trading Companies and engaged in export activities. The country's attractiveness for FDI, in spite of its small size, is reflected in its high ranking based on the UNCTAD FDI Potential Index, though this potential is not matched in terms of actual FDI performance according to the UNCTAD Inward FDI Performance Index (table II.1).

[16] According to data on plant and equipment investment compiled by *Nihon Keizai Shimbun*, domestic investment declined by 3.3 per cent in all industries. It is expected to decline further in 2002 by 12.9 per cent. *Nihon Keizai Shimbun*, 7 April 2002.

[17] Investment in the United States was dominated by such M&As as the $9.8 billion acquisition of AT&T Wireless by NTT Docomo and the $2.3 billion investment in Lucent Technologies by Furukawa Electric.

[18] Japanese TNCs also expanded existing manufacturing facilities in Europe, and some 70 per cent of Japanese manufacturing affiliates in Western Europe were considering expanding their facilities in 2001-2002 (JETRO, 2001).

[19] On a notification basis, as reported by the Ministry of Finance, FDI inflows did not decline in 2000. This was essentially due to large divestments during that year that were recorded in FDI inflows on a balance-of-payments basis, but not on a notification basis. Similarly, in 2001, the decline in FDI inflows on the latter basis was small.

[20] For example, VodafoneAirTouch invested in Japan Telecom to become the latter's largest shareholder. In insurance, United States firms, such as AIG and Prudential, acquired Japanese firms in 2001.

[21] They are Solectron (United States), Flextronics International (Singapore), Celestica (Canada), SCI Systems (United States) and Jabil Circuit (United States). See chapter V for a further analysis of contract manufacturers.

[22] The acquisition was not financed only by FDI.

[23] Against the background of the acquisition of Seagram by Vivendi (France) in 2000, which accounted for more than half of Canada's total inflows.

[24] According to the South African Reserve Bank, "these inflows were largely a consequence of the cancellation of the cross-shareholding between the Anglo-American Corporation, which is the non-resident company, and the De Beers Mining Company" (SARB, Quarterly Bulleting, September 2001, p. 23). Therefore the increase in FDI inflows to South Africa was accompanied by a simultaneous decline in FDI outflows from South Africa.

[25] Data from United States Department of Commerce. Apart from outflows from the United States to North and sub-Saharan Africa, another $48 million went to the continent without further specification of their precise regional destination.

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26   FDI outflow data to Africa are available for France, Germany, the Netherlands, Switzerland, the United Kingdom and the United States. For Switzerland, information is available only at the sectoral level, while all other countries report their figures by individual industry.

27   Due to the unavailability of relevant data, this sectoral analysis does not include FDI outflows from a number of other significant home countries for FDI in Africa, and in particular, from Asia. Although the figures in table III.3 include the most important home countries and represent approximately 75 per cent of all FDI flows from OECD-DAC member countries during 1996-2000, the absence of data for certain home countries might bias the results in certain respects. A good example is FDI to telecommunications which is insignificant for the home countries included in table III.3, but which accounted for a large share in privatization-related FDI in Africa during the 1990s. Much of the FDI in this industry was undertaken by Asian companies (in particular from Malaysia) or from other African countries, including South Africa. Nonetheless, overall, the figures provided here give a fair picture of the recent trends in the sectoral composition of FDI flows into Africa.

28   Some respondents to the UNCTAD/AFII/Andersen survey also mentioned Nigeria and Angola as interesting locations (UNCTAD, 2001a). The MIGA survey mentioned Mozambique, Côte d'Ivoire, Morocco, Nigeria, Mali, Mauritius, Senegal, Ghana and Kenya, in that order (MIGA, 2002).

29   DeloitteToucheTohmatsu, *USA-RSA Business Spotlight,* 27 February 2002.

30   While the swap of Anglo American and De Beers shares might have contributed to additional FDI outflows from South Africa, instead, the complex deal led to a large-scale repatriation of capital to South Africa. This is partly due to the fact that some key shareholders in De Beers who also held Anglo American shares sold part of their interest in Anglo American and repatriated the capital to South Africa.

31   In 2002, General Motors Corp. announced a $400 million deal to take over three auto plants from Daewoo Motors Co., and Lehman Brothers signed a tentative deal to invest $1 billion in Woori Finance Holding.

32   *Taipei Times*, 18 January 2002.

33   Foreign firms are already actively involved in infrastructure development (in particular water and power plants) planned in many parts of this region, though they do not bring in much FDI because of the special financing schemes normally used for infrastructure projects (e.g. build-operate-transfer or project finance).

34   Assuming that every dollar of cross-border M&As, as reported in annex table B.8, is translated into FDI flows.

35   http://koreaexim.go.kr/osis/osismain.html

36   For an in-depth examination of FDI issues relating to Latin America and the Caribbean, see ECLAC, 2002.

37   Two other important deals in Mexico were the acquisition of the insurance company SCA by ING from the Netherlands for $800 million, and the acquisition by Vodafone of a 34 per cent stake in Iusacell for $1 billion.

38   Both surveys, conducted before the debt default and devaluation of December 2001, had ranked the FDI prospects for Argentina also relatively high.

39   Two large telecom operators, Telefónica (Spain) and Portugal Telecom, decided not to increase their local stakes in the Brazilian telecom industry because of perceived adverse market conditions (EIU, *Business Latin America,* 8 February 2002).

40   EIU, *Business Latin America*, 4 February 2002.

41   Differences between investors (both foreign and local) and regulators related mainly to the restrictive terms of natural gas sales by the State-owned Petrobras and the way the national power grid apportioned electricity across the system. EIU, *Business Latin America*, 4 February 2002.

42   Exports by the *maquila* sector in Mexico fell by 3.3 per cent in 2001 (Mexico, Secretaría de Economía, 2001). EPZ exports also fell in Costa Rica (27 per cent) and the Dominican Republic (2 per cent).

43   Prospects for new FDI in oil have been fading since the Government of Venezuela raised royalties in November 2001 from 16.6 per cent to 30 per cent. Another deterrent to foreign investors is the new rule that the State oil monopoly, Petróleos de Venezuela (PDVSA), must hold a majority stake in new joint ventures.

44   In 2001, the real GDP of CEE grew by 2.9 per cent, compared with 2.3 per cent for the developing countries and 0.9 per cent −for the developed countries (UNDESA and UNCTAD, 2002, pp. 41-46).

45   Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, the Republic of Moldova and Slovakia. Albania also fell in the above-potential category as it had high performance despite low potential.

46   Belarus, the Russian Federation and Slovenia.

47   The registered outflows of the Russian Federation do not include capital flight, estimated to exceed $20 billion per year.

48   This section updates the Overview of UNCTAD, 2001c. For an up-to-date analysis of the economic situation of LDCs, see UNCTAD, 2002b.

49   In developing countries taken as a whole, however, FDI became the largest component of net resource flows (see chapter I.A).

50   In 1986-1990, these were Angola, Lesotho, Liberia, Myanmar and Zambia; in 1996-2001, these were Angola, Cambodia, Lesotho, Myanmar and the Sudan.

51   The ultimate parent firm of the acquired company in this transaction is Texaco Inc. of the United States.

52   Bangladesh, Cambodia, Cape Verde, Ethiopia, Lao People's Democratic Republic, Myanmar, Nepal, Solomon Islands and Uganda.

53   There were eight changes in six countries (Burkina Faso, the Democratic Republic of the Congo, Eritrea, Sierra Leone, the Sudan and the United Republic of Tanzania) in 2001.

CHAPTER IV

THE LARGEST TRANSNATIONAL CORPORATIONS

This chapter looks at developments in the universe of the largest non-financial TNCs,[1] ranked by their foreign assets in 2000: the 100 largest worldwide (table IV.1), the largest 50 from developing countries (table IV.10) and the largest 25 from the economies in transition of Central and Eastern Europe (CEE) (table IV.17).

It should be noted that the data – and therefore the discussion – refer to the year 2000, at the height of the stock market boom and cross-border M&A activities. Things have changed considerably in 2001 and 2002 – as exemplified by events in the telecoms industry; these will be discussed in next year's *WIR*. The foreign assets, sales and employment of the top 100 TNCs in the year 2000 accounted for 11 per cent, 14 per cent and 14 per cent, respectively, of the estimated foreign assets, sales and employment[2] of some 65,000 TNCs now operating in the world (table I.1 and annex table A.I.3). The lion's share of their foreign operations is controlled by companies headquartered in a limited number of countries. Nonetheless, the role of the largest TNCs based in these countries is growing, despite the fact that the share of developing countries in total FDI outflows has declined over the past decade (see annex table A.I.1). The largest TNCs from Asia and Latin America – which dominate the list of the largest from developing countries – have recently been expanding abroad at a brisk pace. In addition, some TNCs from Africa, more specifically from South Africa, have, in recent years, opted for a strategy of international growth, partly through cross-border M&As. The degree of transnationalization of a number of the 25 largest TNCs from CEE is increasing as well.

A. The 100 largest TNCs worldwide

1. Highlights

In 2000, Vodafone (United Kingdom) climbed to the top position among the world's 100 largest non-financial TNCs (table IV.1). The company's ascent to the top was the result of a string of cross-border takeover deals concluded in that year and crowned by the acquisition of Mannesmann (Germany) – ranked eighteenth in 1999 – which, consequently, disappeared from the list. Vodafone's appearance in the list highlights two major factors that affected the ranking of the top 100 in 2000: first, the year marked the peak of an unprecedented wave of cross-border M&As that engulfed all major industries, most of all the telecommunications and other "new economy" industries; second, and somewhat related to the first, the year 2000 saw the peak of an almost uninterrupted 10-year-long stock-market rally in North America and Western Europe. This resulted in dramatically increased asset valuations for the companies listed in these markets and actively involved in M&As. Indeed, the top 100, as a group, expanded significantly in size, with two-digit growth rates in their assets and sales, both foreign and total (table IV.2). The ascent of another telecom company – Telefonica (Spain) – into the top 10 also testifies to these factors, as does the rise of Vivendi Universal (France) to the fourth spot after a series of acquisitions that turned what was originally a utility company into the largest media and telecom company by foreign assets. Even some of the regulars in the top 10 – such as the petroleum companies, ExxonMobil and BP

Table IV.1. The world's top 100 non-financial TNCs, ranked by foreign assets, 2000

(Millions of dollars and number of employees)

Ranking in 2000:		Ranking in 1999:		Corporation	Home economy	Industry[b]	Assets		Sales		Employment		TNI[a]
Foreign assets	TNI[a]	Foreign assets	TNI[a]				Foreign	Total	Foreign[c]	Total	Foreign	Total	(Per cent)
1	15	-	-	Vodafone	United Kingdom	Telecommunications	221 238	222 326	7 419	11 747	24 000	29 465	81.4
2	73	1	74	General Electric	United States	Electrical & electronic equipment	159 188	437 006	49 528	129 853	145 000	313 000	40.3
3	30	2	22	ExxonMobil	United States	Petroleum expl./ref./distr.	101 728	149 000	143 044	206 083	64 000	97 900	67.7
4	42	47	79	Vivendi Universal	France	Diversified	93 260	141 935	19 420	39 357	210 084	327 380	59.7
5	84	4	82	General Motors	United States	Motor vehicles	75 150	303 100	48 233	184 632	165 300	386 000	31.2
6	46	3	43	Royal Dutch/Shell	United Kingdom/Netherlands	Petroleum expl./ref./distr.	74 807	122 498	81 086	149 146	54 337	95 365	57.5
7	24	10	18	BP	United Kingdom	Petroleum expl./ref./distr.	57 451	75 173	105 626	148 062	88 300	107 200	76.7
8	80	6	81	Toyota Motor	Japan	Motor vehicles	55 974	154 091	62 245	125 575	..	210 709	35.1
9	55	30	73	Telefónica	Spain	Telecommunications	55 968	87 084	12 929	26 278	71 292	148 707	53.8
10	47	50	80	Fiat	Italy	Motor vehicles	52 803	95 755	35 854	53 554	112 224	223 953	57.4
11	57	9	49	IBM	United States	Electrical & electronic equipment	43 139	88 349	51 180	88 396	170 000	316 303	53.5
12	44	12	45	Volkswagen	Germany	Motor vehicles	42 725	75 922	57 787	79 609	160 274	324 402	59.4
13	64	-	-	ChevronTexaco	United States	Petroleum expl./ref./distr.	42 576	77 621	65 016	117 095	21 693	69 265	47.2
14	52	48	53	Hutchison Whampoa	Hong Kong, China	Diversified	41 881	56 610	2 840	7 311	27 165	49 570	55.9
15	23	19	57	Suez	France	Electricity, gas and water	38 521	43 460	24 145	32 211	117 280	173 200	77.1
16	93	7	50	DaimlerChrysler	Germany/United States	Motor vehicles	..	187 087	48 717	152 446	83 464	416 501	24.0
17	11	31	14	News Corporation	Australia	Media	36 108	39 279	12 777	14 151	24 500	33 800	84.9
18	4	11	2	Nestlé	Switzerland	Food & beverages	35 289	39 954	48 928	49 648	218 112	224 541	94.7
19	62	-	-	TotalFinaElf	France	Petroleum expl./ref./distr.	33 119	81 700	82 534	105 828	30 020	123 303	47.6
20	87	16	54	Repsol YPF	Spain	Petroleum expl./ref./distr.	31 944	48 776	15 891	42 563	16 455	37 387	29.3
21	51	20	32	BMW	Germany	Motor vehicles	31 184	45 910	26 147	34 639	23 759	93 624	56.3
22	48	22	42	Sony	Japan	Electrical & electronic equipment	30 214	68 129	42 768	63 664	109 080	181 800	57.2
23	77	-	-	E.On	Germany	Electricity, gas and water	..	114 951	41 843	86 882	83 338	186 788	39.4
24	3	21	3	ABB	Switzerland	Machinery and equipment	28 619	30 962	22 528	22 967	151 340	160 818	94.9
25	10	33	35	Philips Electronics	Netherlands	Electrical & electronic equipment	27 885	35 885	33 308	34 870	184 200	219 429	85.7
26	8	-	-	Anglo American	United Kingdom	Mining & quarrying	26 000	30 616	18 100	20 570	230 000	249 000	88.4
27	19	17	13	Diageo	United Kingdom	Food & beverages	25 980	37 550	15 880	18 470	59 587	72 474	79.1
28	91	15	89	Wal-Mart Stores	United States	Retail	25 742	78 130	32 100	191 329	300 000	1300 000	24.3
29	43	29	27	Honda Motor	Japan	Motor vehicles	25 576	46 146	41 909	57 454	56 200	112 400	59.5
30	26	43	25	Alcatel	France	Machinery and equipment	24 461	39 524	25 269	29 487	..	131 598	72.8
31	5	35	7	British American Tobacco	United Kingdom	Tobacco	23 860	25 076	16 374	17 603	82 583	86 805	94.4
32	66	34	68	Nissan Motor	Japan	Motor vehicles	23 347	51 610	28 680	48 717	39 698	133 833	44.6
33	37	46	36	BASF	Germany	Chemicals	23 208	36 197	26 332	33 746	48 917	103 273	63.2
34	18	27	6	Roche	Switzerland	Pharmaceuticals	22 960	42 469	17 232	17 537	56 099	64 758	79.7
35	31	41	33	Bayer	Germany	Pharmaceuticals	21 288	33 917	24 875	28 818	65 900	122 100	67.7
36	74	36	67	Eni	Italy	Petroleum expl./ref./distr.	20 788	45 688	19 311	44 606	21 279	69 969	39.7
37	49	24	8	Unilever	United Kingdom/Netherlands	Diversified	20 382	52 587	26 067	44 254	215 000	295 000	56.8
38	85	5	76	Ford Motor	United States	Motor vehicles	19 874	283 390	51 691	170 058	185 264	350 117	30.1
39	1	86	34	Rio Tinto	United Kingdom/Australia	Mining & quarrying	19 405	19 443	9 735	9 972	33 415	34 399	98.2
40	56	25	48	Aventis	France	Pharmaceuticals	19 264	38 142	14 088	20 940	44 477[d]	102 489	53.7

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Table IV.1. The world's top 100 non-financial TNCs, ranked by foreign assets, 2000 (continued)

(Millions of dollars and number of employees)

Ranking in 2000:		Ranking in 1999:						Assets			Sales			Employment		
Foreign assets	TNI[a]	Foreign assets	TNI[a]	Corporation	Home economy	Industry[b]		Foreign	Total	Foreign[c]	Total	Foreign	Total	Foreign	Total	TNI[a] (Per cent)
41	79	44	69	Texas Utilities Company (TXU)	United States	Electricity, gas and water		19 224	43 420	7 761	22 009	4 677	16 540	35.9
42	89	45	85	Mitsui & Company	Japan	Wholesale trade		19 118	64 071	45 901	128 162	5 659	39 344	26.7
43	59	-	-	Pfizer	United States	Pharmaceuticals		19 100	33 500	10 000	29 400	56 000	90 000	51.1
44	58	39	51	Hewlett-Packard	United States	Electrical & electronic equipment		..	34 009	27 505	48 871	..	87 944	53.4
45	41	61	77	Carrefour	France	Retail		17 137	24 065	28 664	60 298	209 542	330 247	60.7
46	60	67	70	Procter & Gamble	United States	Diversified		16 967	34 194	19 913	39 951	..	..	48.3
47	27	42	26	Coca-Cola	United States	Food & beverages		16 560	20 830	12 740	20 460	28 200	37 000	72.7
48	68	48	62	Peugeot	France	Motor vehicles		16 334	46 963	28 466	42 978	54 500	172 400	44.2
49	2	56	1	Thomson	Canada									

Table IV.1. The world's top 100 non-financial TNCs, ranked by foreign assets, 2000 (concluded)

(Millions of dollars and number of employees)

Ranking in 2000: Foreign assets	Ranking in 2000: TNIa	Ranking in 1999: Foreign assets	Ranking in 1999: TNIa	Corporation	Home economy	Industryb	Assets Foreign	Assets Total	Sales Foreignc	Sales Total	Employment Foreign	Employment Total	TNIa (Per cent)
82	20	81	15	L'Air Liquide	France	Chemicals	9 643	10 700	5 760	7 480	20 900	30 300	78.7
83	25	-	-	Pearson	United Kingdom	Media	9 556	13 062	4 580	5 787	18 817	24 688	76.2
84	83	49	72	Fujitsu	Japan	Electrical & electronic equipment	9 476	41 936	15 275	44 229	71 000	187 399	31.7
85	35	-	-	Norsk Hydro Asa	Norway	Diversified	9 378	22 191	16 118	17 727	21 901	38 166	63.5
86	7	-	-	Interbrew	Belgium	Food & beverages	9 274	10 383	6 704	7 384	33 000	36 463	90.2
87	34	-	-	Carnival	United States	Tourism	9 200	9 800	598	3 779	27 000	32 000	64.7
88	29	-	-	Alcan	Canada	Metal and metal products	9 030	18 407	8 523	9 244	26 000	37 000	70.5
89	88	66	87	Marubeni	Japan	Wholesale trade	9 000	52 682	40 000	96 438	..	31 342	28.3
90	13	95	12	Cadbury - Schweppes	United Kingdom	Food & beverages	8 845	9 651	5 412	6 834	29 648	36 460	84.1
91	6	79	4	Electrolux	Sweden	Electrical & electronic equipment	8 810	9 519	13 089	13 576	78 969	87 128	93.2
92	63	-	-	LG Electronics	Korea, Republic of	Electrical & electronic equipment	8 750	17 709	9 331	18 558	20 072	46 912	47.5
93	12	74	10	AkzoNobel	Netherlands	Pharmaceuticals	8 600	10 900	11 900	12 600	55 600	68 400	84.9
94	65	88	63	Usinor	France	Metal and metal products	8 541	14 297	5 190	14 771	24 180	60 521	44.9
95	67	-	-	Conoco	United States	Petroleum expl./ref./distr.	8 311	15 618	10 621	31 936	8 280	17 579	44.5
96	90	97	56	Mitsubishi Motors	Japan	Motor vehicles	8 169	28 732	15 084	37 905	2 091	24 360	25.6
97	76	83	83	Petróleos de Venezuela	Venezuela	Petroleum expl./ref./distr.	8 017	57 089	49 780	53 234	5 458	46 920	39.7
98	54	28	38	Renault	France	Motor vehicles	7 936	19 653	24 121	37 383	98 000	166 114	54.6
99	82	-	-	Petronas	Malaysia	Petroleum expl./ref./distr.	7 690	36 594	11 790	19 305	3 808	23 450	32.8
100	94	-	-	Philip Morris	United States	Diversified	7 425	79 067	32 051	63 276	..	178 000	22.4

Source: UNCTAD/Erasmus University database.

a The transnationality index (TNI) is calculated as the average of the following three ratios: foreign assets to total assets, foreign sales to total sales and foreign employment to total employment.

b Industry classification for companies follows the United States Standard Industrial Classification.

c In a number of cases companies reported only total foreign sales without distinguishing between export from the parent company and sales of their foreign affiliates. Some foreign sales figures might therefore also include parent company exports.

d Employment for outside Europe.

.. Data on foreign assets, foreign sales and foreign employment were not available. In case of non-availability, they are estimated using secondary sources of information or on the basis of the ratios of foreign to total assets, foreign to total sales and foreign to total employment.

Note: In some companies, foreign investors may hold a minority share of more than 10 per cent.

Table IV.2. **Snapshot of the world's top 100 TNCs, 2000**

(Billions of dollars, number of employees and percentage)

Variable	2000	1999	Change 2000 vs. 1999
Assets			
Foreign	2 554	2 115	20.8
Total	6 293	5 101	23.4
Sales			
Foreign	2 441	2 129	14.6
Total	4 797	4 318	11.1
Employment			
Foreign	7 132 946	6 057 557	17.8
Total	14 257 204	13 385 861	6.5
Average index of transnationality	55.7	52.3	3.4[a]

Source: UNCTAD/Erasmus University database.

[a]   The change between 1999 and 2000 is expressed in percentage points.

– consolidated their positions through a number of cross-border M&As. Despite these changes, the composition of the top 10 remained fairly stable compared to previous years: the remaining places were filled with regulars on the list, including General Electric, last year's largest TNC by foreign assets, Royal Dutch/Shell, Toyota Motor and General Motors – which remain the largest automobile manufacturers on the list – and Fiat, which replaced DaimlerChrysler[3] in third place among the car manufacturers.

In general, the ranking of the top 100 is also related to the degree of their participation in cross-border M&As. The largest 20 companies most actively involved in cross-border M&As accounted for one-fifth of the total value of cross-border M&A deals during the past 15 years: 1987-2001 (table IV.3). Many of the largest TNCs also figure in this league. The recent boom in M&A activity has made large TNCs larger than ever. This is illustrated by the value and number of M&As in which some of the largest have been involved. For example, BP spent $94 billion for its 98 cross-border M&A transactions during 1987-2001, and General Electric concluded 228 cross-border M&As during the same period (table IV.3). Indeed, some of the largest TNCs are larger than many countries, if the size of both is measured by value added (box IV.1).

Table IV.3. **The top 20 TNCs ranked by value of cross-border M&A activity,[a] 1987-2001**

Rank	Name	Home country	Industry	Value[b] (billions of dollars)	Number of deals
1	Vodafone	United Kingdom	Telecommunications	297.6	28
2	BP	United Kingdom	Petroleum	94.1	98
3	Daimler-Benz/DaimlerChrysler	Germany/United States	Motor vehicles	54.6	88
4	Deutsche Telekom	Germany	Telecommunications	52.8	24
5	Mannesmann	Germany	Telecommunications & engineering	44.7	47
6	AXA/AXA-UAP	France	Insurance	41.6	73
7	ZENECA Group	United Kingdom	Pharmaceuticals	35.8	16
8	BT	United Kingdom	Telecommunications	32.9	47
9	Aventis	France	Pharmaceuticals	31.7	38
10	Nestlé	Switzerland	Food and beverages	28.1	136
11	General Electric	United States	Electronic and electrical equipment	25.4	228
12	Roche Holding	Switzerland	Pharmaceuticals	24.7	23
13	Allianz/Allianz Holding	Germany	Insurance	23.9	101
14	Suez	France	Electric, gas and water distribution	23.3	106
15	Zurich Insurance	Switzerland	Insurance	22.7	37
16	News Corporation	Australia	Media	22.6	82
17	Citigroup	United States	Banking	21.5	52
18	Deutsche Bank	Germany	Banking	20.6	94
19	Seagram	Canada	Food and beverages	20.2	24
20	Aegon	Netherlands	Insurance	18.8	28
Top 10				713.9	595
Top 20				937.7	1 370
Total			4 605.2	59 273	

Source: UNCTAD cross-border M&A database, based on data from Thomson Financial Securities Data Company.

[a]   Includes cross-border M&As concluded by their affiliates.
[b]   Includes only the deals for which information on transaction values is available.

Box IV.1. Are some TNCs bigger than countries?

There is no doubt that TNCs have been growing in size at rates exceeding those of many economies. The sales of the 500 largest firms in the world nearly tripled between 1990 and 2001,[a] while world GDP in current prices increased 1.5 times between these two years. UNCTAD's 100 TNCs also increased their total sales, from $3.2 trillion to almost $4.8 trillion between 1990 and 2000.

The size of large TNCs is sometimes compared to that of countries' economies, as an indicator of the influence that the former have in the world economy. According to one comparison of the sales volume of firms with the GDP of countries, the sales of the top 200 firms accounted for 27.5 per cent of world GDP in 1999 (Anderson and Cavanagh, 2000). Of the 50 largest "economies", 14 were TNCs and 36 were countries.

However, a comparison of the sales of firms with the GDP of countries is conceptually flawed, as GDP is a value-added measure and sales are not. A comparable yardstick requires that sales be recalculated as value added. For firms, value added can be estimated as the sum of salaries and benefits, depreciation and amortization, and pre-tax income (De Grauwe and Camerman, 2002). Based on this measure, the world's largest TNC was ExxonMobil, with an estimated $63 billion in value added in 2000; it ranked 45th in a combined list of countries and non-financial companies (box table IV.1.1). The size of this company equals the size of the economies of Chile or Pakistan in terms of value added. In the top 100 of a combined country-company list for 2000, there were 29 TNCs; half of the largest value-added entities ranked between 51 and 100 were individual firms (box table IV.1.1).

Box table IV.1.1. How large are the top TNCs vis-à-vis economies in 2000?
(Billions of dollars)

Rank	Name of TNC/economy	Value[a] added	Rank	Name of TNC/economy	Value[a] added	Rank	Name of TNC/economy	Value[a] added
1	United States	9 810	34	Greece	113	67	Libyan Arab Jamahiriya	31
2	Japan	4 765	35	Israel	110	68	BP	30
3	Germany	1 866	36	Portugal	106	69	Wal-Mart Stores	30[c]
4	United Kingdom	1 427	37	Iran, Islamic Republic of	105	70	IBM	27[b]
5	France	1 294	38	Egypt	99	71	Volkswagen	24
6	China	1 080	39	Ireland	95	72	Cuba	24
7	Italy	1 074	40	Singapore	92	73	Hitachi	24[b]
8	Canada	701	41	Malaysia	90	74	TotalFinaElf	23
9	Brazil	595	42	Colombia	81	75	Verizon Communications	23[d]
10	Mexico	575	43	Philippines	75	76	Matsushita Electric Industrial	22[b]
11	Spain	561	44	Chile	71	77	Mitsui & Company	20[c]
12	Korea, Republic of	457	45	ExxonMobil	63[b]	78	E.On	20
13	India	457	46	Pakistan	62	79	Oman	20
14	Australia	388	47	General Motors	56[b]	80	Sony	20[b]
15	Netherlands	370	48	Peru	53	81	Mitsubishi	20[c]
16	Taiwan Province of China	309	49	Algeria	53	82	Uruguay	20
17	Argentina	285	50	New Zealand	51	83	Dominican Republic	20
18	Russian Federation	251	51	Czech Republic	51	84	Tunisia	19
19	Switzerland	239	52	United Arab Emirates	48	85	Philip Morris	19[b]
20	Sweden	229	53	Bangladesh	47	86	Slovakia	19
21	Belgium	229	54	Hungary	46	87	Croatia	19
22	Turkey	200	55	Ford Motor	44	88	Guatemala	19
23	Austria	189	56	DaimlerChrysler	42	89	Luxembourg	19
24	Saudi Arabia	173	57	Nigeria	41	90	SBC Communications	19[d]
25	Denmark	163	58	General Electric	39[b]	91	Itochu	18[c]
26	Hong Kong, China	163	59	Toyota Motor	38[b]	92	Kazakhstan	18
27	Norway	162	60	Kuwait	38	93	Slovenia	18
28	Poland	158	61	Romania	37	94	Honda Motor	18[b]
29	Indonesia	153	62	Royal Dutch/Shell	36	95	Eni	18
30	South Africa	126	63	Morocco	33	96	Nissan Motor	18[b]
31	Thailand	122	64	Ukraine	32	97	Toshiba	17[b]
32	Finland	121	65	Siemens	32	98	Syrian Arab Republic	17
33	Venezuela	120	66	Viet Nam	31	99	GlaxoSmithKline	17
						100	B T	17

Source: UNCTAD.

[a] GDP for countries and value added for TNCs. Value added is defined as the sum of salaries, pre-tax profits and depreciation and amortisation.

[b] Value added is estimated by applying the 30 per-cent share of value added in the total sales, 2000, of 66 manufacturers for which the data were available.

[c] Value added is estimated by applying the 16 per-cent share of value added in the total sales, 2000, of 7 trading companies for which the data on value added were available.

[d] Value added is estimated by applying the 37 per-cent share of value added in the total sales, 2000, of 22 other tertiary companies for which the data on value added were available.

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Box IV.1. Are some TNCs bigger than countries? (concluded)

The value-added activities of the largest TNCs have grown faster than those of countries in recent years. Those of the 100 largest TNCs accounted for 4.3 per cent of world GDP in 2000, compared with 3.5 per cent in 1990. This increase – amounting to some $600 billion – was almost equivalent to the GDP of Spain. The concentration of value added in the 10 to 50 largest TNCs, as measured by the share of their value added in GDP, however, has declined somewhat over the past decade (box table IV.1.2). It should be noted that the number of the largest TNCs that fell within the combined top 100 list of companies and countries was 24 in 1990, five less than in 2000. Increases in the share of

value added of the largest 100 TNCs in world GDP confirm that their size has become even larger over the past decade.

Box table IV.1.2. The concentration ratio of the largest 100 TNCs in world GDP, 1990 and 2000
(Per cent)

	Value added as a percentage of world GDP	
Number of TNCs	1990	2000
Top 10 TNCs	1.0	0.9
Top 20 TNCs	1.8	1.5
Top 50 TNCs	2.9	2.8
Top 100 TNCs	3.5	4.3

Source: UNCTAD, database on the largest TNCs

Source: UNCTAD.

a "The Fortune Global 500", *Fortune*, 22 April 1991 and 15 April 2002.

In total, 22 entries were registered in 2000 (tables IV.4 and IV.5). The newcomers have a number of interesting features:

- They come from a wide range of industries, although there seems to be a slight concentration in service industries,

in particular in telecommunications and the media.

- Most of the newcomers are from Europe, especially from the United Kingdom, but also from smaller countries such as Belgium and Norway.

Table IV.4.   Newcomers to the world's top 100 TNCs, 2000

Ranking by					
Foreign assets	TNI[a]	Corporation	Home country	Industry	TNI[a] (Per cent)
1	15	Vodafone	United Kingdom	Telecommunications	81.4
13	64	ChevronTexaco	United States	Petroleum expl./ref./distr.	47.2
19	62	TotalFinaElf	France	Petroleum expl./ref./distr.	47.6
23	77	E.On	Germany	Electricity, gas and water	39.4
26	8	Anglo American	United Kingdom	Mining & quarrying	88.4
43	59	Pfizer	United States	Pharmaceuticals	51.1
57	33	Compagnie De Saint-Gobain	France	Non-metallic mineral products	65.6
58	100	Verizon Communications	United States	Telecommunications	4.0
64	96	Deutsche Post	Germany	Transport and storage	19.1
68	21	WPP Group	United Kingdom	Business services	78.5
70	53	GlaxoSmithKline	United Kingdom	Pharmaceuticals	55.4
78	36	Cable & Wireless	United Kingdom	Telecommunications	63.2
79	97	Japan Tobacco	Japan	Tobacco	18.7
83	25	Pearson	United Kingdom	Media	76.2
85	35	Norsk Hydro Asa	Norway	Diversified	63.5
86	7	Interbrew	Belgium	Food & beverages	90.2
87	34	Carnival	United States	Tourism	64.7
88	29	Alcan	Canada	Metal and metal products	70.5
92	63	LG Electronics	Korea, Republic of	Electrical & electronic equipment	47.5
95	67	Conoco	United States	Petroleum expl./ref./distr.	44.5
99	82	Petronas	Malaysia	Petroleum expl./ref./distr.	32.8
100	94	Philip Morris	United States	Diversified	22.4

Source: UNCTAD/Erasmus University database.

a   The transnationlity index (TNI) is calculated as the average of the following three ratios: foreign assets to total assets, foreign sales to total sales and foreign employment to total employment.

Table IV.5. Departures from the world's top 100 TNCs, 2000[a]

Ranking in 1999 by					
Foreign assets	TNI	Corporation	Home country	Industry	TNI (Per cent)
8	21	Total Fina	France	Petroleum expl./ref./distr.	70.3
13	11	Nippon Mitsubishi Oil	Japan	Petroleum expl./ref./distr.	82.4
18	58	Mannesmann	Germany	Telecommunications/engineering	48.9
23	9	Seagram	Canada	Beverages/media	88.6
26	84	Mitsubishi	Japan	Diversified	29.7
37	78	Chevron	United States	Petroleum expl./ref./distr.	34.2
40	53	Elf Aquitaine	France	Petroleum expl./ref./distr.	51.7
51	65	Veba Group	Germany	Diversified	42.4
53	66	Du Pont (E.I.) de Nemours	United States	Chemicals	41.3
58	5	Holcim (ex Holderbank)	Switzerland	Construction materials	91.8
64	16	Glaxo Wellcome	United Kingdom	Pharmaceuticals	76.6
72	28	Compart	Italy	Food & beverages	63.8
76	94	Southern Company	United States	Utility	19.8
82	90	Edison International	United States	Electronics	24.3
84	29	Montedison Group	Italy	Chemicals/agrindustry	62.2
85	64	Viag	Germany	Diversified	43.3
89	92	Atlantic Richfield	United States	Petroleum expl./ref./distr.	23.3
91	88	Lucent Technologies	United States	Electronics	25.9
92	39	Crown Cork & Seal	United States	Packaging	57.5
93	75	Metro	Germany	Retailing	36.4
94	55	Texaco	United States	Petroleum expl./ref./distr.	51.2
96	91	Toshiba	Japan	Electronics	23.3

Source: UNCTAD/Erasmus University database.

a   This also includes companies that could not be considered because of their late responses to the UNCTAD questionnaire and for which estimates could not be derived.

- Two of the newcomers are companies that ranked high on the list of top 50 TNCs from developing countries in 1999.
- Almost all newcomers, with the exception of Verizon and, to a lesser degree, Deutsche Post, Petronas, Philip Morris, Japan Tobacco, E. ON and LG Electronics, are already in advanced stages of their transnationalization processes, as is evident from their above-average transnationality index figures.
- While most of the new entrants figure in the lower ranks of the top 100 list, three (led by Vodafone) made it immediately into the top quartile, reflecting the dynamic process characterized by M&As.

As for the companies exiting from the list, 11 of the 22 departures are explained by M&As. They include four German firms, eight from the United States and two from France. The industry most affected has been petroleum and mining (with six companies disappearing from the list or being absorbed into a newly formed company). One telecommunications company also dropped out. While these were cases of full acquisitions, the exit of other companies resulted from partial acquisitions: For instance, Southern Company, a United States-based utility,

lost its place as the result of a sell-off of most of its overseas operations.

A record five firms among the top 100 TNCs – Petronas (Malaysia), Hutchison Whampoa (Hong Kong, China), Cemex (Mexico), Petroleos de Venezuela and LG Electronics (Republic of Korea) – are headquartered in a developing country. These companies are involved in a variety of industries, both traditional ones like oil and petroleum, and "new economy" ones like telecommunications and electronics, suggesting that firms from developing countries have the potential to become global players in a range of industries.

In the 1990s, developing-country firms gained more prominence on the top 100 list, and the composition of developed-country firms changed (table IV.6).

- Firms from the EU accounted for more than half of the total foreign assets of the top 100 firms, up from 45 per cent at the beginning of the 1990s. This is a direct consequence of a comprehensive restructuring in the course of the EU integration process. Thus, while the number of European firms on the list remained

stable, firms grew larger by merging or taking over rivals inside and outside the EU. Firms from the United Kingdom were at the forefront of this process: Their share in the foreign assets of the top 100 firms increased to more than a fifth, and their number grew to 14, the third largest after the United States and Japan. While a similar development could be observed for French firms, the trend there was less obvious.

- Although the United States is still the home country for the single largest number of companies on the list, its importance in this respect has declined somewhat over the past decade. This is because United States companies have focused

more on M&As within the United States, while their European rivals often have had no alternative but to expand through foreign acquisitions. Liberal M&A legislation in the United States facilitates the takeover of firms in that country, while such deals have hurdles to pass in Europe.

- Japanese firms fell back in the top 100 list. Although their number has increased from 12 to 16 in the past 10 years, their share in foreign assets has remained stable or fallen. Thus, fewer Japanese firms are to be found at the top end of the list. While at the end of the 1980s and the beginning of the 1990s many Japanese firms were engaged in cross-border M&As, the burst of the stock market bubble

Table IV.6. Home economies of the world's top 100 TNCs by transnationality index and foreign assets, 1990, 1995 and 2000

Economy		Average TNI[a] (Per cent)			Share in total of foreign assets of top 100 (Per cent)			Number of entries		
		2000	1995	1990	2000	1995	1990	2000	1995	1990
European Union		67.1	66.0	56.7	53.0	43.8	45.5	49	39	48
	France	63.2	57.6	50.9	12.0	8.9	10.4	13	11	14
	Germany	45.9	56.0	44.4	9.3	12.2	8.9	10	9	9
	United Kingdom[b]	76.9	64.8	68.5	21.0	12.2	8.9	14	10	12
	The Netherlands[b]	84.4	79.0	68.5	2.0	8.2	8.9	3	4	4
	Italy	48.6	35.8	38.7	2.9	2.3	3.5	2	2	4
	Sweden	75.7	80.6	71.7	1.3	1.7	2.7	3	3	5
	Finland	77.3	-	-	0.6	-	-	1	-	-
	Spain	41.6	-	-	3.4	-	-	2	-	-
	Belgium	90.2	70.4	60.4	0.4	0.9	1.0	1	2	1
North America		62.9	46.0	41.2	28.1	35.9	32.5	25	34	30
	United States	43.0	41.9	38.5	27.2	33.3	31.5	23	30	28
	Canada	82.9	76.5	79.2	1.0	2.7	1.0	2	4	2
Japan		35.9	31.9	35.5	10.7	15.1	12.0	16	17	12
Other economies		48.9	66.9	73.0	7.6	9.0	10.0	10	10	10
	Switzerland	89.7	83.6	84.3	3.4	6.6	7.5	3	5	6
	Australia[b]	0.8	-	51.8	0.8	-	1.6	1	3	2
	Venezuela	39.7	44.4	-	0.3	0.4	-	1	1	-
	New Zealand	-	-	62.2	-	-	0.5	-	-	1
	Republic of Korea	47.5	47.7	-	0.3	0.7	-	1	1	-
	Norway	63.5	-	58.1	0.4	-	0.4	1	-	1
	Malaysia	32.8	-	-	0.3	-	-	1	-	-
	Mexico	60.9	-	-	0.4	-	-	1	-	-
	Hong Kong, China	55.9	-	-	1.6	-	-	1	-	-
Total/average for all economies		57.8	51.5	51.1	100	100	100	100	100	100

Source: UNCTAD and Erasmus University database.

[a] The transnationality index (TNI) is calculated as the average of the following three ratios: foreign assets to total assets, foreign sales to total sales and foreign employment to total employment.

[b] Due to dual nationality, Royal Dutch Shell and Unilever are counted as an entry for both the United Kingdom and The Netherlands. In the aggregate for the European Union and the total of all listed TNCs, they are counted once. Rio Tinto Plc is counted as an entry for both the United Kingdom and Australia. In the aggregate for the total of all 100 listed TNCs, it is counted once.

in Japan at the beginning of the decade left many firms (with some exceptions) without the means for larger M&As (see chapter III).

Foreign assets. Growth in foreign assets held by the 100 largest TNCs continued in 2000. Total foreign assets increased by more than 20 per cent, to $2.5 trillion (table IV.2). The TNCs that registered the three largest increases in foreign assets were Vivendi Universal, Pfizer and Rio Tinto, as a result of M&As. Some telecom firms also saw an impressive double-digit increase in their foreign assets. These included Telefonica, Verizon, Cable&Wireless and Hutchinson Whampoa (which is diversified, but has a considerable interest in telecoms abroad). All these companies too were involved in major M&As. Other companies that experienced significant increases had a diversified industrial and geographic background. All in all, the fact that 45 of the companies saw a double-digit rate of increase in their foreign assets as a result of M&As underlines the importance of these activities during 1999-2000. On the other hand, an unprecedented number of TNCs (20) in the top 100 suffered declines. These companies were in a wide range of industries, with the exception of "new economy" ones such as telecommunications. Firms from three industries – electrical and electronic equipment, motor vehicles and pharmaceuticals – accounted for more than half of all the cases experiencing reduced foreign assets in 2000. In addition to technical reasons related to the definition of foreign assets and operations (see footnote 3 for an example), there are several other reasons for this:

- Some companies reduced their foreign assets (in the context of changed corporate strategies) through spin-offs of certain segments of their businesses following restructuring or M&As, as was the case with Siemens and Infineon.

- The fact that a quarter of the companies that experienced a reduction of their foreign assets in 2000 were from the electrical and electronic equipment industries suggests that these firms were among the first to be hit by the economic slowdown, and responded with cost-savings strategies that included the sale of manufacturing operations abroad to contract manufacturing (chapter V).

- Finally, given that an economic slowdown had begun in 2000 in at least some

industries, some of the declines in foreign assets might have been a corporate response to dimmer economic prospects.

In sum, the variation in the fortunes of the top 100 with respect to foreign assets underlines the importance of the dynamic developments in M&A activities during 2000.

Foreign sales.[4] Total foreign sales of the world's 100 largest TNCs amounted to slightly more than $2.4 trillion in 2000 (table IV.2), up by more than 14 per cent from 1999. This expansion exceeded that of total sales (11 per cent), pointing to the increasing importance of foreign sales. As with foreign assets, TNCs from the petroleum industry feature prominently in the list of the largest TNCs ranked by foreign sales, with ExxonMobil ($143 billion), BP ($106 billion), TotalFinaElf ($83 billion), Royal Dutch/Shell ($81 billion) and ChevronTexaco ($65 billion) leading in the list. The top 10 by foreign sales include a number of automobile manufacturers (Toyota, Volkswagen and Ford, in that order). The only company in an industry other than petroleum and automobiles among the top 10 by foreign sales is IBM, which ranks ninth, with just over $51 billion in foreign sales. Interestingly, many telecom companies that rank high on the list by foreign assets can be found at the bottom when it comes to ranking by foreign sales, suggesting that share price developments, particularly in these industries, had little to do with the operational fundamentals of the companies in that year. The most dynamic increases in foreign sales were recorded for two petroleum companies from developing countries, Petroleos de Venezuela and Petronas of Malaysia, followed by Aventis of France. In general, almost half (48) of the top 100 companies experienced double-digit growth rates in foreign sales. However, as with foreign assets, 20 per cent recorded lower sales. The reasons for this are the same as those explaining the reduction in foreign assets. As for the 10 steepest declines in foreign sales, no clear pattern can be discerned: TNCs experiencing declines came from various countries and industries. DaimlerChrysler (-60 per cent) heads this list, followed by Siemens (-41 per cent) and Unilever. However, contrary to foreign sales, most declines in foreign assets were no bigger than 5 per cent.

As for the distribution of foreign sales of the largest 100 TNCs by country of origin,

it closely resembles the distribution of foreign assets (table IV.6).

Foreign employment. There was a major reversal in foreign employment by the top 100. While the companies on the list had reduced their foreign employment by almost 8 per cent in 1999, this trend was reversed in 2000. Foreign employment by the top 100 firms rose by more than 17 per cent, to an unprecedented 7 million out of a total of more than 14 million employees. This is particularly remarkable since the trend in total employment did not change. As in the previous year, total employment increased at a steady rate of about 6 per cent (table IV.2). Again, as with the other parameters for the firms making up the list of top 100, performance varied considerably: but some 20 companies increased their foreign employment by 10 per cent or more, but another 35 actually reduced their workforce abroad. The companies significantly expanding their foreign employment in 2000 were spread across the top 100 list and over all industries, including companies such as Vivendi Universal (100 per cent), BP (42 per cent) and Telefonica (75 per cent). However, there was some concentration mainly in the industries in which most of the M&A action took place during that year (i.e. telecommunications, oil and petroleum, mining and retail). The large number of companies that reduced their foreign workforce suggests that, despite the ongoing wave of cross-border M&As, most companies remained highly cost-sensitive in the aftermath of the Asian crisis and in response to the first signs of the global slowdown already looming on the horizon.

The 10 TNCs accounting for the largest reductions in foreign employment largely
overlapped with the 10 that experienced the largest declines in foreign sales. Many TNCs among those that experienced the largest declines in foreign assets were companies going through a post-merger restructuring phase, such as DaimlerChrysler and Aventis.

National origin. The national-origin composition of the top 100 TNCs continued to be fairly stable, although the number of EU companies has increased since 1995 and they have regained the position they had held at the beginning of the 1990s. The number of Japanese companies on the list

has stabilized at a considerably higher level than at the beginning of the 1990s (1990: 12, 2000: 16), although their share in foreign assets and sales has remained constant. Japanese companies now mostly occupy the lower end of the list. The increase in the number of European and Japanese companies on the list has been at the expense of companies from the United States, which now form little more than a quarter of the top 100, as against a third 10 years ago. Another interesting feature of the home-country distribution is that, although the number of companies from non-Triad countries has been stable, at around 10, these companies now come from a larger pool of countries, including five developing countries. The prominence of Switzerland as a home country for non-Triad-TNCs on the list has been drastically reduced. After a number of M&A deals between Swiss firms as well as between Swiss and non-Swiss firms in the first half of the 1990s, the subsequent absence of such deals led to the gradual departure of several Swiss firms from the list, as they were overtaken by other firms that continued to be more active in terms of M&A deals.

Industries. The list of the top 100 TNCs in 2000 was dominated by the same industries as in previous years: electronics and electrical equipment, motor vehicles and parts, petroleum exploration and distribution, and food and beverages (table IV.7). Together they account for 47 of the 100 companies on the list. At first sight, this stability is remarkable, given the M&A activity in some of these industries. The explanation is that, while M&As led to the disappearance of some companies in these industries, they also brought new entrants. In some industries, most notably petroleum, these entrants included companies from developing countries. The industries with the most remarkable increase in the number of firms on the list were telecommunications and utilities. Deregulation and privatization of these industries in the past decade, especially in Europe, explain this trend.

2. Transnationality

The Transnationality Index applied to host countries in chapter I can also be used to capture the foreign dimension of the activities of the top TNCs. It is the average of three ratios for a firm: foreign assets/total assets, foreign sales/total sales

Table IV.7. Industry composition of the top 100 TNCs, 1990, 1995 and 2000

Industry	Average TNI [a] per industry (Per cent)			Number of entries		
	2000	1995	1990	2000	1995	1990
Motor vehicle and parts	59.7	42.3	35.8	15	14	13
Electronics/electrical equipment/computers	50.5	49.3	47.4	12	18	14
Petroleum exploration/refining/distribution and mining	70.8	50.3	47.3	12	14	13
Pharmaceuticals	61.8	63.1	66.1	9	6	6
Food/beverages/tobacco	70.1	61.0	59.0	8	12	9
Telecommunications	45.4	46.3	46.2	7	5	2
Diversified	51.1	43.6	29.7	6	2	2
Other	60.6	59.4	57.6	6	5	7
Trading	26.8	30.5	32.4	5	5	7
Utilities	47.8	-	-	5	-	-
Retailing	57.3	-	-	4	-	-
Chemicals	63.4	63.3	60.1	3	11	12
Machinery/engineering	75.4	37.9	54.5	3	1	3
Media	85.4	83.4	82.6	3	2	2
Metals	57.7	27.9	55.1	2	2	6
Construction	-	67.8	58.8	-	3	4
Total/average	58.9	51.5	51.1	100	100	100

Source: UNCTAD and Erasmus University database.

[a] The transnationality index (TNI) is calculated as the average of the following three ratios: foreign assets to total assets, foreign sales to total sales and foreign employment to total employment.

and foreign employment/total employment. Between 1991 and 2000, the average Transnationality Index value of the world's top 100 TNCs rose – with some interruptions – from 51 per cent in 1991 to almost 56 per cent in 2000 (figure IV.I).[5] This means that the companies on the list have become more transnationalized. In recent years, the upward trend of this Index has been driven mainly by the sales and employment components. This was also the case in 2000, when foreign sales and employment grew faster than sales and employment generally, while total assets expanded more rapidly

Figure IV.1. The transnationalization of the world's top 100 TNCs, 1990-2000
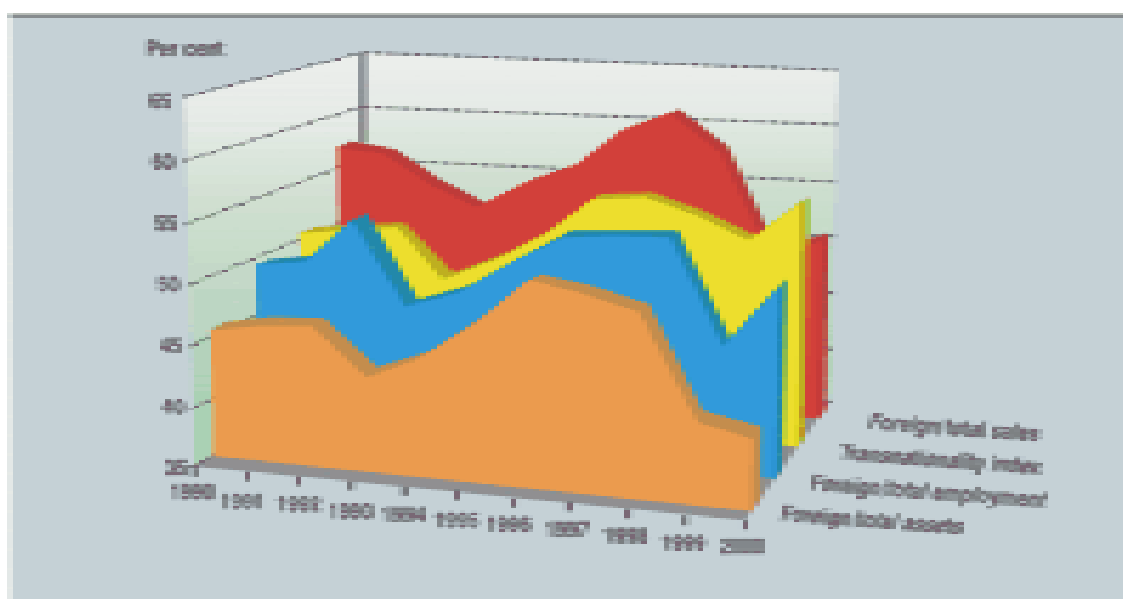
Source: UNCTAD/Erasmus University database.

Note: The ratios represent the averages of the individual ratios of foreign assets/total assets, foreign sales/total sales, foreign employment/total employment of the top 100 expressed in percentages. The average transnationality index (TNI) of the top 100 TNCs is the average of their individual transnationality indices. As a result, it is possible that the average TNI in some instances could be higher than any of the foreign/total ratios.

than foreign assets. Both the sales and the employment components of the Index have increased significantly, while the foreign assets/total assets ratio actually fell slightly between 1990 and 2000. As already mentioned, the valuation of TNCs' assets was subject to changes in the stock market at the end of the 1990s and the beginning of this decade. Thus, at least in the so-called "new economy", the expansion of the value of total assets counterbalanced the increase in foreign assets. The increase in the Transnationality Index for the entire list was driven by a larger number of companies with very high transnationality indices: in 2000 a quarter (25) of the companies on the list had an index value of 75 per cent or higher, while in 1999 there were only 16.

In 2000, as in earlier years, a number of the largest firms in the top 10 in terms of transnationality were from countries with small domestic markets (table IV.8). They include ABB and Nestlé of Switzerland, Electrolux of Sweden, Interbrew of Belgium and Philips of the Netherlands. More remarkable, however, is the fact that almost half of the companies on the top 10 list are from the United Kingdom. All these companies have pursued a strategy of consolidating their market position by acquisitions of competitors in Europe, North America or other strategically important markets. Companies from the United States and Japan are not on the list. Even though they have expanded internationally, the importance of their relatively large home markets results in relatively low foreign-to-total ratios. As for the industry composition on the list, a third of the companies in the

top 10 come from the food and beverages industry, including British American Tobacco, which is predominantly a tobacco firm but has a considerable interests in food and beverages operations, too. Another fifth are mining companies.

This largely mirrors the transnationality of the top 100 in general. Taking the average of the five largest companies by foreign assets for each of the major industrial groups on the list, TNCs in food and beverages, together with TNCs from the pharmaceutical industry, have, on average, the highest transnationality index value (table IV.9). Petroleum has a lower average rank, in part because a number of the petroleum companies are based in the United States with many of their activities still taking place at home. While the top companies in electronics/electrical equipment and pharmaceutical industries were transnationalized much less, on average, than those in food and beverage, they made strides in international expansion during the 1990s. In the first of the two industries, many companies pursued a rigorous regionalization strategy, locating manufacturing and distribution centres in key regions. Efforts were also made to cut costs by reducing the number of parts and components produced in the home country and decentralizing their production to low-cost locations in (or close to) key markets. At the same time, the drive towards more efficient production also inspired cross-border M&As with foreign competitors. This was particularly true for the pharmaceutical industry, in which ever-increasing fixed costs for R&D drove companies to realize economies of scale through M&As.

Table IV.8. The world's top 10 TNCs in terms of transnationality, 2000

Ranking in 2000		Ranking in 1999					TNI[a]
Foreign assets	TNI	Foreign assets	TNI	Corporation	Home country	Industry	(Per cent)
39	1	86	34	Rio Tinto	United Kingdom	Mining & quarrying	98.2
49	2	56	1	Thomson	Canada	Media	95.3
24	3	21	3	ABB	Switzerland	Machinery and equipment	94.9
18	4	11	2	Nestlé	Switzerland	Food & beverages	94.7
31	5	35	7	British American Tobacco	United Kingdom	Tobacco	94.4
91	6	79	4	Electrolux	Sweden	Electrical & electronic equipment	93.2
86	7	-	-	Interbrew	Belgium	Food & beverages	90.2
26	8	-	-	Anglo American	United Kingdom	Mining & quarrying	88.4
52	9	90	20	Astrazeneca	United Kingdom	Pharmaceuticals	86.9
25	10	33	35	Philips Electronics	Netherlands	Electrical & electronic equipment	85.7

Source: UNCTAD/Erasmus University database.

a   The transnationality index (TNI) is calculated as the average of the following three ratios: foreign assets to total assets, foreign sales to total sales and foreign employment to total employment.

Table IV.9. Average transnationality index of the top 5 TNCs in each industry,[a] and their shares in the assets, sales and employment of the top 100, 1990, 1995 and 2000

(Percentage)

Industry	Year	TNI	Assets		Sales		Employment	
			Foreign	Total	Foreign	Total	Foreign	Total
Petroleum								
	2000	59.8	12.1	8.0	19.6	15.1	3.6	3.5
	1995	64.8	12.9	8.0	13.6	10.0	4.0	3.1
	1990	57.7	15.1	10.6	15.8	11.9	5.5	4.2
Motor vehicles								
	2000	36.9	10.2	12.9	10.4	12.4	7.8	11.0
	1995	38.6	14.0	17.3	9.6	13.4	9.7	13.5
	1990	34.7	11.9	15.3	10.4	11.8	9.7	14.2
Electronics & electrical equipment								
	2000	52.1	10.9	10.6	8.4	7.6	9.1	7.8
	1995	61.1	11.1	10.4	7.8	6.9	13.2	10.7
	1990	36.1	6.4	7.4	4.7	6.3	6.5	9.6
Pharmaceuticals								
	2000	64.2	3.8	2.6	3.3	2.3	3.8	3.1
	1995	68.0	3.8	2.5	2.4	1.7	3.4	2.5
	1990	47.1	1.5	1.3	1.6	1.4	2.4	2.3
Chemicals								
	2000	60.7	2.6	1.8	2.9	2.1	2.5	2.3
	1995	61.1	6.2	3.9	5.0	4.0	5.5	4.9
	1990	51.6	5.3	4.2	5.9	4.5	4.8	5.4
Food/beverages								
	2000	86.0	3.8	2.0	3.9	2.3	6.0	3.2
	1995	76.9	6.7	4.8	7.4	5.2	12.9	7.1
	1990	60.8	7.2	5.6	5.8	5.0	11.7	7.6

Source: UNCTAD and Erasmus University database.

[a]   Only industries that have at least five entries in the lists of the top 100 TNCs of 1990, 1995 and 2000.

All in all, the list of companies with the largest rises in the Transnationality Index is composed of TNCs from a greater variety of industries in 2000 (figure IV.2). Many of these companies are also newcomers (table IV.4). The increases in the Index values at the top are much larger than for companies that topped the Index in 1999. Again, this mirrors the leaps in transnationalization as a result of cross-border M&As. As with the ranking of the top TNCs in the Index, the companies with the largest increases in transnationality come from Europe and, in particular, from France and Germany. For some companies, values declined considerably. Toyota Motor and Mitsubishi Motors were among those that experienced the biggest decline (figure IV.3). There are also individual examples of firms on this list, such as Unilever or Roche, for which the values developed differently from the average for their industries. This highlights the importance of individual firm strategies for transnationalization, which can differ significantly from those of their competitors.

Figure IV.2. The 10 biggest increases in transnationality among the world's top 100 TNCs, 1999-2000

(In percentage points)
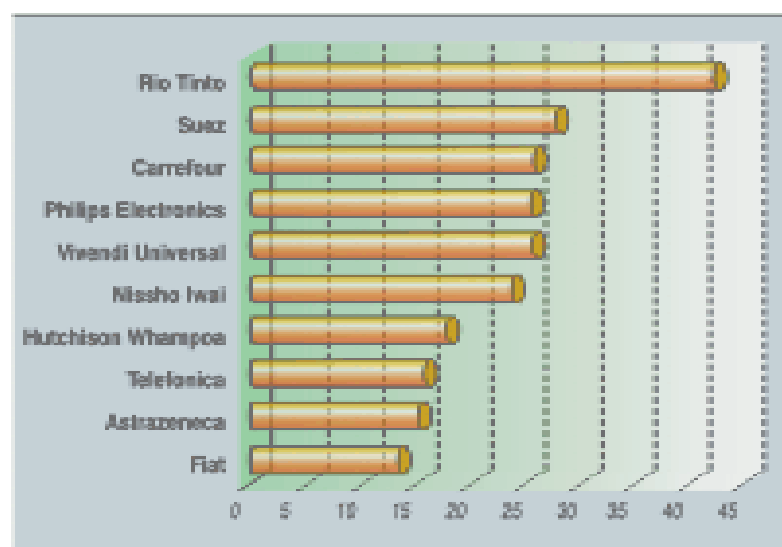
Source: UNCTAD/Erasmus University database.

Figure IV.3. **The 10 biggest decreases in transnationality among the world's top 100 TNCs, 1999-2000**
(In percentage points)
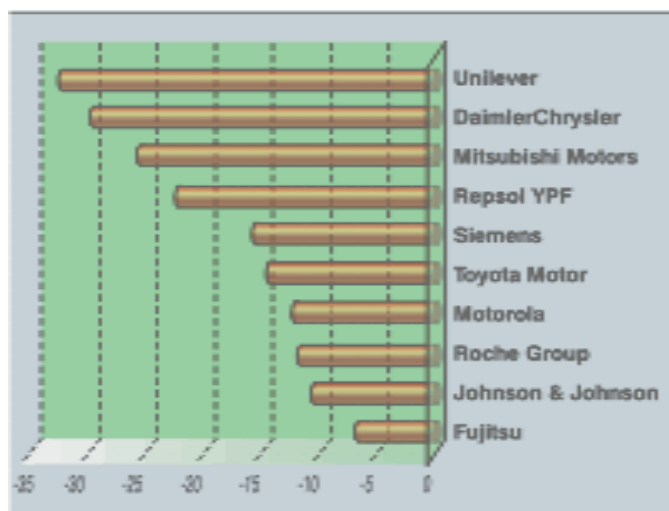
Source: UNCTAD/Erasmus University database.

3. Developments in 2001

Preliminary data suggest that some of the trends observed for 2000 continued through the following year. Thus, the combined foreign assets of approximately half of the firms on the top 100 list, for which figures are already reported for 2001, rose by almost $50 billion in 2001. At the same time, the total assets of this group increased by some $88 billion. This meant that total sales expanded – in relative terms – more modestly than foreign sales as most companies continued with their investments abroad, even though the M&A wave slowed considerably in 2001 as a result of the global economic slowdown and the stock market decline (see chapter I).

The economic slowdown that started in 2000 and continued throughout 2001 also led to a decline in sales and employment figures for the reporting companies. In 2001, total sales fell by $63 billion as compared to 2000. Foreign sales accounted for slightly less than 20 per cent of that line. Foreign employment continued to grow by 3.7 per cent or 102,000, although total employment virtually stagnated, with an increase of only 0.8 per cent or 43,000. Since all the foreign components grew faster or decreased less than the totals, the greater transnationalization of operations of the top 100 seemed set to continue. It is however, clear that the global economic downturn took its toll and has led to a considerable slowing down of this process.

B. The 50 largest TNCs from developing countries

1. Highlights

The trend towards increased transnationalization of the 50 largest TNCs from developing countries continued in 2000 (table IV.10). Foreign assets grew by 21 per cent and foreign sales by an impressive 56 per cent. Foreign employment, on the other hand, increased more modestly by 5 per cent. While the top 50 were less affected by the wave of cross-border M&As in 2000 than the top 100, many among the top 50 benefited from the still positive economic climate in developed-country markets and the recovery of developing economies from the effects of the Asian financial crisis of the late 1990s. The increased transnationalization was not, however, spread evenly among the 50. It was driven largely by a handful of dominant companies.

In 2000, Hutchison Whampoa (Hong Kong, China) consolidated its top position (table IV.10), won in 1999 in the aftermath of the sale of its interest in the telecom company, Orange, to Mannesmann (in turn acquired by Vodafone a few months later).[6] It was one of the few companies from a developing country to be directly affected by the M&A battles in developed countries, resulting in an increase in its foreign interests. Together with Cemex, LG Electronics, Petroleos de Venezuela and Petronas, it accounted for just under half of all foreign assets of the top 50. These five companies also made it to the list of the top 100 companies worldwide in 2000. This is a record number of developing-country TNCs on the top 100 list, and stands out particularly because, for years, only Petroleos de Venezuela (which now ranks fourth in the top 50) was large enough to make it to top 100. Not only has the growth and economic importance of these companies been impressive, they have also significantly influenced the aggregate figures for the whole group (table IV.11). If these top five were to be excluded, the aggregate figures would actually drop for the remaining TNCs on the list from developing countries to levels lower than those in 1999.

Table IV.10. The top 50 non-financial TNCs from developing economies, ranked by foreign assets, 2000

(Millions of dollars and number of employees)

Ranking by Foreign assets	Ranking by TNI [a]	Corporation	Home economy	Industry [b]	Assets Foreign	Assets Total	Sales [c] Foreign	Sales Total	Employment Foreign	Employment Total	TNI [a] (Per cent)
1	11	Hutchison Whampoa	Hong Kong, China	Diversified	41 881	56 610	2 840	7 311	27 165	49 570	50.3
2	8	Cemex	Mexico	Non-metallic mineral products	10 887	15 759	3 028	5 621	15 448	25 884	54.8
3	15	LG Electronics	Korea, Republic of	Electrical & electronic equipment	8 750	17 709	9 331	18 558	20 072	46 912	42.7
4	20	Petróleos de Venezuela	Venezuela	Petroleum expl./ref./distr.	8 017	57 089	49 780	53 234	5 458	46 920	35.8
5	27	Petronas	Malaysia	Petroleum expl./ref./distr.	7 690	36 594	11 790	19 305	3 808	23 450	29.5
6	43	New World Development	Hong Kong, China	Diversified	4 578	16 412	565	2 633	800	23 530	15.8
7	39	Samsung Corporation	Korea, Republic of	Diversified/trade	3 900	10 400	8 300	40 700	175	4 740	18.5
8	21	Samsung Electronics	Korea, Republic of	Electrical & electronic equipment	3 898	25 085	23 055	31 562	16 981	60 977	34.9
9	4	Neptune Orient Lines	Singapore	Transport and storage	3 812	4 360	4 498	4 673	6 840	8 734	78.6
10	29	Companhia Vale Do Rio Doce	Brazil	Mining & quarrying	3 660	10 269	758	4 904	6 285	17 634	28.9
11	7	Sappi	South Africa	Paper	3 239	4 768	3 601	4 718	9 399	19 276	57.9
12	26	COFCO	China	Food & beverages	2 867	4 543	4 767	12 517	350	26 000	30.8
13	1	Guangdong Investment	Hong Kong, China	Diversified	2 852	4 605	460	634	6 837	7 875	88.2
14	19	China National Chemicals, Imp. & Exp.	China	Chemicals	2 603	4 701	10 755	18 036	600	8 600	36.6
15	47	Hyundai Motor	Korea, Republic of	Motor vehicles	2 488	25 393	4 412	25 814	6 532	84 925	10.4
16	42	Keppel	Singapore	Diversified	2 293	22 180	338	3 657	5 910	16 389	16.7
17	2	First Pacific	Hong Kong, China	Electrical & electronic equipment	2 116	2 322	652	809	8 511	8 560	81.4
18	13	Citic Pacific	Hong Kong, China	Construction	2 076	4 022	981	2 058	7 118	11 354	48.6
19	34	Grupo Carso	Mexico	Diversified	2 043	8 827	4 000	9 315	19 542	89 954	26.3
20	24	South African Breweries	South Africa	Food & beverages	1 966	4 384	1 454	5 424	15 763	48 079	31.3
21	3	Orient Overseas International	Hong Kong, China	Transport and storage	1 819	2 155	2 382	2 395	3 792	4 414	80.9
22	46	Singtel	Singapore	Telecommunications	1 790	8 143	..	2 845	2 500	12 640	12.6
23	45	Posco	Korea, Republic of	Metal and metal products	1 777	15 901	2 311	10 873	2 741	26 261	12.9
24	30	San Miguel	Philippines	Food & beverages	1 738	3 061	300	1 861	3 091	14 864	28.1
25	17	Jardine Matheson	Hong Kong, China	Diversified	1 641	10 339	7 148	10 354	50 000	130 000	37.0
26	36	Perez Companc	Argentina	Petroleum expl./ref./distr.	1 614	5 493	420	1 546	625	3 301	22.6
27	49	Petrobras	Brazil	Petroleum expl./ref./distr.	1 535	39 136	3 756	26 955	627	38 908	5.8
28	25	Singapore Airlines	Singapore	Transport and storage	1 445	9 473	4 084	5 326	2 972	27 513	30.8
29	12	Fraser & Neave	Singapore	Food & beverages	1 318	4 211	944	1 551	7 826	10 750	49.5
30	23	Metalurgica Gerdau	Brazil	Metal and metal products	1 259	3 532	1 267	2 658	3 958	13 565	33.7
31	6	Savia	Mexico	Diversified	1 233	3 625	718	814	7 390	9 787	59.3
32	10	Gruma	Mexico	Food & beverages	1 169	2 280	1 253	1 901	8 959	16 897	51.1
33	14	Acer	Taiwan Province of China	Electrical & electronic equipment	1 143	3 956	1 447	4 760	3 554	12 300	26.5

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Table IV.10. The top 50 non-financial TNCs from developing economies, ranked by foreign assets, 2000 (concluded)

(Millions of dollars and number of employees)

| Ranking by | | | | | Assets | | Sales | | Employment | | TNI [a] |
Foreign assets	TNI [a]	Corporation	Home economy	Industry [b]	Foreign	Total	Foreign [c]	Total	Foreign	Total	(Per cent)
34	33	Amsteel	Malaysia	Diversified	1 143	3 453	544	1 416	37 094	50 218	43.6
35	16	Barloworld	South Africa	Diversified	1 110	2 260	1 730	3 380	9 006	21 966	42.4
36	37	United Microelectronics	Taiwan Province of China	Electrical & electronic equipment	1 087	9 454	1 611	3 485	770	9 373	19.8
37	44	Copec	Chile	Petroleum expl./ref./distr.	1 076	7 121	1 102	3 611	610	8 856	15.8
38	41	Swire Pacific	Hong Kong, China	Business services	1 026	13 900	834	1 929	5 000	60 000	17.7
39	50	CLP Holdings - China Light & Power Company	Hong Kong, China	Electricity, gas and water	..	6 216	..	3 135	..	3 899	5.7
40	5	WBL	Singapore	Electrical & electronic equipment	879	1 106	338	534	12 467	13 374	70.8
41	18	Sime Darby	Malaysia	Diversified	878	2 417	1 751	2 887	6 856	27 126	36.7
42	31	Varig	Brazil	Transport and storage	863	1 872	1 175	2 915	1 168	16 710	28.0
43	28	Berjaya Group	Malaysia	Diversified	832	3 352	954	2 052	5 500	21 783	29.0
44	48	Hongkong Electric Holdings	Hong Kong, China	Electricity, gas and water	811	6 622	..	1 456	300	2 366	8.9
45	32	Great Eagle Holdings	Hong Kong, China	Business services	751	3 755	196	372	601	3 004	27.8
46	38	Sabic	Saudi Arabia	Petroleum expl./ref./distr.	702	23 769	4 206	7 110	314	14 404	19.3
47	40	China Metals And Minerals	China	Metal and metal products	645	2 375	984	3 830	580	7 524	18.2
48	22	Pepkor	South Africa	Retail	608	1 365	1 029	4 095	30 000	68 272	34.1
49	35	Panamerican Beverages	Mexico	Food & beverages	594	2 937	960	2 560	5 000	26 000	23.1
50	9	Hume Industries	Malaysia	Construction	593	1 178	931	1 341	6 536	12 545	51.6

Source: UNCTAD/Erasmus University database.

a The transnationlity index (TNI) is calculated as the average of the following three ratios: foreign assets to total assets, foreign sales to total sales and foreign employment to total employment.

b Industry classification for companies follows the United States Standard Industrial Classification.

c In a number of cases companies reported only total foreign sales without distinguishing between export from the parent company and sales of their foreign affiliates.

.. Some foreign sales figures might therefore also include parent company exports. Data on foreign assets, foreign sales and foreign employment were not made available. In case of non-availability, they are estimated using secondary sources of information or on the basis of the ratios of foreign to total assets, foreign to total sales and foreign to total employment.

Note: In some companies, foreign investors may hold a minority share of more than 10 per cent.

**Table IV.11. Snapshot of top 50 TNCs
from developing economies, 2000**
(Millions of dollars, percentage
and number of employees)

Variable	2000	1999	Change [a] 2000 vs. 1999 (Per cent)
Assets			
Foreign	155 659	129 000	20.7
Total	540 489	531 000	1.8
Sales			
Foreign	189 897	122 000	55.7
Total	391 429	367 000	6.7
Employment			
Foreign	403 473	383 107	5.3
Total	1 317 983	1 134 687	16.2
Average TNI	34.6	38.9	-4.3

Source: UNCTAD, FDI/TNC database.

[a] Change is measured in percentage points.

The list of the 50 largest developing-country TNCs differs strikingly from the list of the 100 largest TNCs worldwide when it comes to the relative importance of the topmost companies in the two lists. In the top 100 list, the differences between the leading companies and the rest are smaller and more stable. The fact that the dynamic increases in the aggregate values of foreign assets, sales and employment of the top 50 occur in a few companies is also reflected in the stagnant median value for foreign assets. As in 1999, it stood at $1.6 billion. For the top 100, on the other hand, the median increased from $15.3 billion in 1999 to $16.6 billion in 2000. Another striking difference between the top 50 and the top 100 for the year 2000 is that the stronger presence of "new" service industries among the top 100, notably telecoms and the media, is not replicated among the top 50.

Despite the divergent growth trajectories of individual companies on the list, the top 50 developing-country TNCs continued their recovery in the aftermath of the 1997 financial crisis in Asia, although foreign employment increased much more modestly than the values for the other two variables. While the aggregate figures are significantly influenced by those of a handful of large firms, most firms saw an expansion of their foreign assets and sales, but mixed results in foreign employment.

The average Transnationality Index value for the top 50 as a whole decreased by 4 percent in 2000 compared to that for the previous year. Overall, in 2000, 20 TNCs improved their position on the Transnationality Index, while 25 had a lower Index value than in 1999. The three increase in the foreign/total ratios and yet, the decrease in average TNI at the same time may seem paradoxical. However, these increases were mainly driven by a handful of large TNCs whose statistical weight tends to be mitigated when consolidated into the average TNI for the group (figure IV.4).

Traditionally, the most transnationalized developing-country companies have been from Hong Kong (China) and Singapore (table IV.12). This was also the case in 2000. Industry-wise, the diversified Guangdong Investments and the electronics firm, First Pacific, followed by two shipping companies, Neptune Orient Lines and Orient Overseas International, occupy the top ranks on the Index. Another electronics firm, Singapore-based WBL, is also at the top of the list; much of its manufacturing is carried out in other low-cost locations across South-East Asia. At the other end of that ranking are the utilities companies, with scores of less than 10 per cent.

With 11 new firms on the list, the number of new entrants was in line with figures from 1999 (table IV.13). In 2000, a number of Chinese companies, for which data were not available in 1999, entered the list. Other than that, the newcomers come from a wide range of countries and industries. Over the past few years, there has been no clear trend in terms of either industry or geographic origin of the newcomers, except for the entry of a limited number of telecom companies, which faintly mirrors a trend among the top 100. It is remarkable that, with Sabic, there is now, for the first time, a Saudi Arabian company on the list. The Transnationality Index value for most of the newcomers is low, except for COFCO and China National Chemicals of China, Hume Industries of Malaysia and Pepkor of South Africa. This is no surprise as most newcomers are relatively small, making it only to the bottom ranks on the list by foreign assets. Most of the newcomers on the lower ranks of the list are not entirely new to the list, as most of them had been on and off the top 50 for several years.

As for departures from the list, four Korean companies had to be dropped (table IV.14) because of a lack of data.

Figure IV.4. The transnationalization of the top 50 TNCs from developing economies, 1993-2000
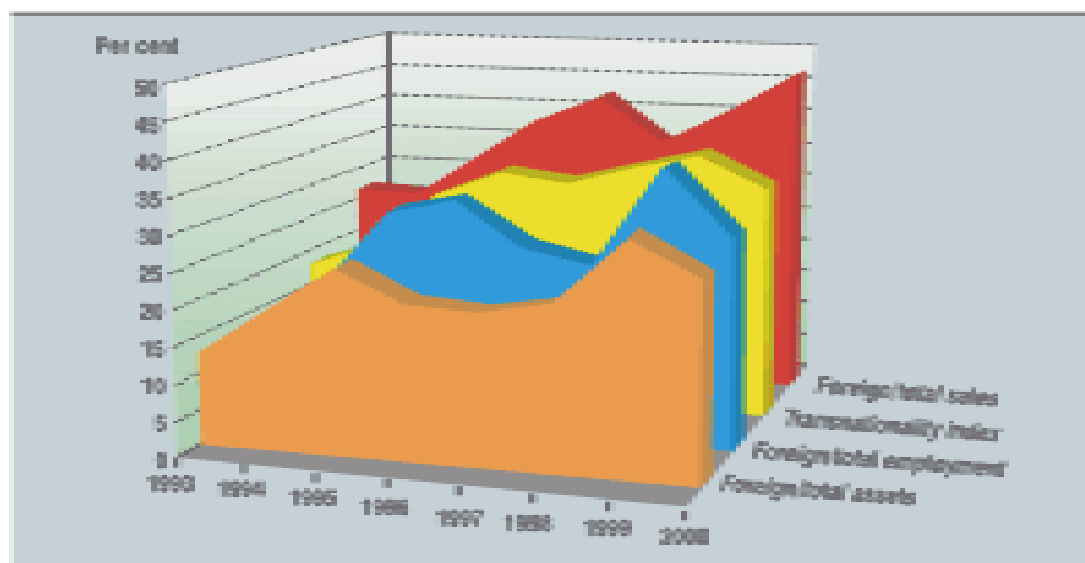
Source: UNCTAD, FDI/TNC database.

Note: Note: The ratios represent the averages of the individual ratios of foreign assets/total assets, foreign sales/total sales, foreign employment/total employment of the top 50 expressed in percentages. The average transnationality index of the top 50 TNCs is the average of the 50 individual company transnationality indices.

Table IV.12.   The top 5 TNCs from developing economies in terms of transnationality, 2000

Ranking by					
TNI[a]	**Foreign assets**	**Company**	**Home economy**	**Industry**	**TNI**[a] **(Per cent)**
1	12	Guangdong Investment	Hong Kong, China	Diversified	88.2
2	16	First Pacific	Hong Kong, China	Electrical & electronic equipment	81.4
3	20	Orient Overseas International	Hong Kong, China	Transport and storage	80.9
4	9	Neptune Orient Lines	Singapore	Transport and storage	78.6
5	39	WBL	Singapore	Electrical & electronic equipment	70.8

Source: UNCTAD, FDI/TNC database.

[a]   The transnationality index (TNI) is calculated as the average of the following three ratios: foreign assets to total assets, foreign sales to total sales and foreign employment to total employment.

Table IV.13. Newcomers to the top 50 TNCs from developing economies, 2000

Ranking by					
Foreign Assets	**TNI**	**Corporation**	**Home economy**	**Industry**	**TNI (Per cent)**
11	28	COFCO	China	Food & beverages	34.2
13	20	China National Chemicals, Imp. & Exp.	China	Chemicals	40.7
18	34	Grupo Carso	Mexico	Diversified	29.2
36	36	United Microelectronics	Taiwan Province of China	Electrical & electronic equipment	22.0
38	40	Swire Pacific Limited	Hong Kong, China	Real Estate	19.6
42	31	Varig	Brazil	Transportation	31.1
44	48	Hongkong Electric Holdings	Hong Kong, China	Electricity, gas and water	9.9
46	37	Sabic	Saudi Arabia	Oil & petroleum	21.4
47	39	China Metals And Minerals	China	Steel & metals	20.2
48	24	Pepkor	South Africa	Retail	37.9
50	9	Hume Industries	Malaysia	Construction	51.6

Source: UNCTAD, FDI/TNC database.

Table IV.14. **Departures from the top 50 TNCs from developing economies, 2000**

Ranking in 1999					TNI in 1999
Foreign assets	TNI	Corporation	Home economy	Industry	(Per cent)
6	13	Daewoo International	Korea, Republic of	Diversified	49.4
8	45	Sunkyong Group	Korea, Republic of	Oil & petroleum	15.2
18	14	Hyundai Engineering & Construction	Korea, Republic of	Industrial	48.5
19	1	Tan Chong International	Singapore	Automotive	93.3
33	33	Tatung	Taiwan Province of China	Electrical & electronic equipment	28.1
35	36	Samsung	Korea, Republic of	Electrical & electronic equipment	25.5
41	47	Reliance Industries	India	Chemicals	9.6
47	23	De Beers Consolidated Mines	South Africa	Steel & metals	38.8
48	15	Hong Kong And Shanghai Hotels	Hong Kong, China	Leisure & hospitality	47.4
49	48	Telekom Malaysia	Malaysia	Telecommunications	7.5

Source: UNCTAD, FDI/TNC database.

Many of the companies dropping off the list in 2000 had been on and off the list in previous years. The fact that Telekom Malaysia has departed from the list further indicates that the dynamic growth trend in the "new economy" industries in the developed world has not been fully replicated in developing countries. One reason for this could be that the liberalization of the telecom industry has advanced at a slower pace in developing countries. In those in which it has moved fast, domestic firms that began to transnationalize or possessed an attractive enough home market, like many Latin American telecom or other utility operators, were taken over by rival competitors from developed countries, thus disappearing from the list. Some companies spun off a number of foreign operations and business units, with their foreign assets consequently reduced so much that they could no longer make it to the top 50.

Overall, the industry composition of the top 50 list has remained unchanged (table IV.15). Firms classified as "diversified" represent 11 of the 50 companies. They account for 40 per cent of the combined foreign assets of the top 50, and 43 per cent of the combined foreign employment. In terms of their share in total foreign sales, however, they rank only fourth after the petroleum, electronics and industrial companies, following a drastic decline in their share from 17 per cent in 1999 to only 11 per cent in 2000 (figure IV.5). Seven of the 50 companies were in electronics, the industry that saw the largest increase in numbers. Its relative importance

in the top 50 group is second highest in terms of its share in foreign assets and its share in foreign sales and the third highest in foreign employment. Overall, the top 50 are spread over a wide range of industries, just like the top 100.

However, there are some differences from the top 100. In recent years, the top 100 have been subject to more structural changes. In particular, since the mid-1990s, the top 100 list has seen numerous M&As leading to the absorption of many of the top 100 companies. This phenomenon has been almost absent in the case of the top

Table IV.15. **Industry composition of the top 50 TNCs from developing economies, 1998 1999 and 2000**

Industry	Number of entries			Average TNI[a] per industry (Per cent)		
	2000	1999	1998	2000	1999	1998
Diversified	11	14	11	40.5	44.3	40.1
Electronics	7	6	4	42.1	41.5	39.3
Food and beverages	6	5	8	35.6	45.0	47.0
Petroleum expl./ref./distr.	6	5	5	21.5	21.6	18.6
Other	6	6	5	32.8	28.7	45.8
Transportation	4	3	3	54.6	71.2	50.5
Steel and iron	3	3	3	21.6	34.2	27.2
Electric Utilities or Services	2	2	3	7.3	25.3	20.8
Construction	2	3	6	50.1	39.6	30.2
Chemicals and pharmaceuticals	1	1	1	36.6	9.6	7.7
Automotive	1	1	-	10.4	10.9	-
Pulp and paper	1	1	1	57.9	63.7	63.8
Average/total[b]	50	50	50	34.2	36.3	35.5

Source: UNCTAD, FDI/TNC database.

[a] The transnationality index (TNI) is calculated as the average of the following three ratios:foreign assets to total assets, foreign sales to total sales and foreign employment to total employment.

[b] Numbers may not add up exactly due to rounding.

Note: This list does not include countries from Central and Eastern Europe.

Figure IV.5. Shares of industry groups among the top 50, 1999 and 2000
(Percentage)
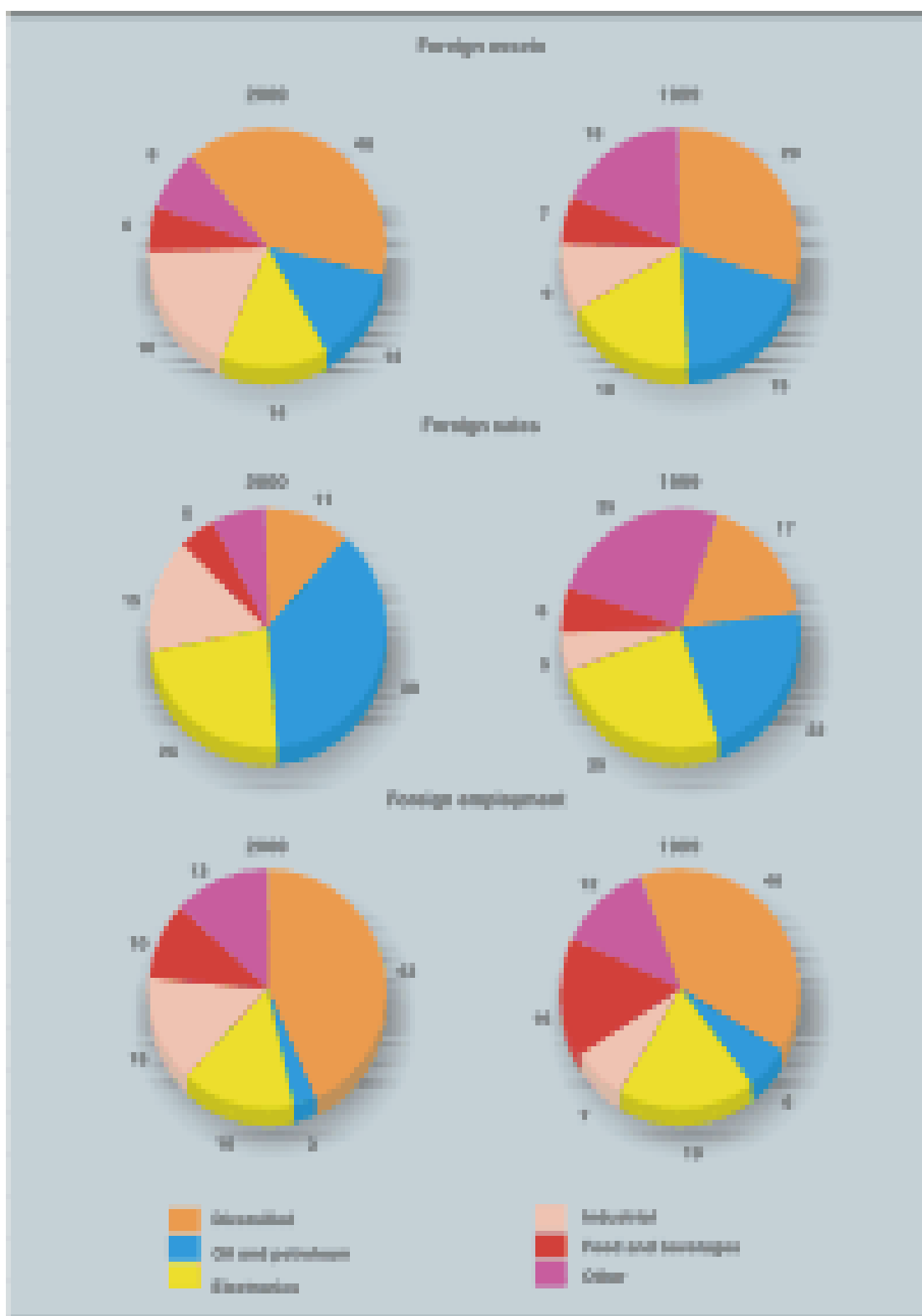
Source: UNCTAD, FDI/TNC database.

50. As noted earlier, only a few of the top 50 were affected by the M&A surge, such as Hutchison Whampoa, which had interests in telecom companies in Europe and the United States, and companies that eventually became takeover targets for developed-country competitors, such as Argentina's YPF that was taken over by the Spanish company, Repsol, in 1999.

Given the large increases in foreign assets, sales and (to a lesser extent) foreign employment in 2000, it is remarkable how little this has affected the distribution of the different aggregates among the main industry groups (figure IV.5). The most dramatic changes have occurred in the petroleum industry, which increased its share in total foreign sales of the top 50 from 22 to 38 per cent. This was mainly due to the expansion of Petronas and Petróleos de Venezuela.

As for transationalization trends by industry, in 6 out of 12 industries, the average Transnationalization Index value increased over the period 1998-2000. These were the diversified, electronics, transportation, construction, petroleum, and chemicals and pharmaceuticals industries. In some of them, these trends are the immediate result of changes in individual companies, such as Petronas in petroleum, and China National Chemicals in chemicals and pharmaceuticals. The most transnationalized industry was pulp and paper, followed by transport, with scores of 58 and 55 per cent (table IV.15 and figure

IV.6). In the former, however, the high figure represents only one company – Sappi of South Africa. Electronics, diversified, and food and beverages have, on average, a lower level of transnationalization, though the value exceeds 40 per cent in all of them. It should be noted that there is not a single industry in which the Index average of developing-country firms surpasses that of their peers from developed countries. In other words, TNCs from developing countries have transnationalized their operations much less and still depend much more on their home-country business. There are, nonetheless, a few companies from developing countries that aspire to become "global players", such as South African Breweries (box IV.2).

The degree of transnationality differs widely by home country, with firms from smaller Asian economies, such as Hong Kong (China) and Singapore, unsurprisingly ranking much higher on the Index than firms from larger countries, such as Brazil or China (table IV.16 and figure IV.7). Given this, it is remarkable that Mexican TNCs have attained a transnationality level as high as those from Hong Kong (China). Although the Index value for firms from that country has declined since 1998, some Mexican companies remain in the small group on the list that has pursued a real globalization strategy. One such example is Cemex, a firm that successfully entered developed-country markets, notably the United States,

Figure IV.6. The top 50: Industry groups and their average transnationality index, 1999-2000
(Percentage)
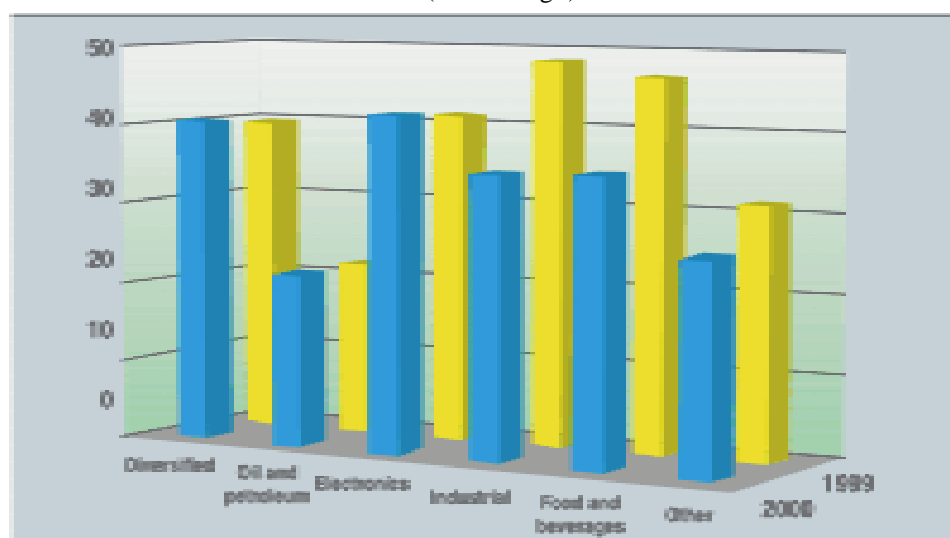
Box IV.2. A global player in brewing: South African Breweries

The evolution of South African Breweries (SAB) is an interesting example of the international expansion of a developing-country TNC, both because it highlights motives for transnationalization that are rarely seen in developed-country firms and because it illustrates the challenges latecomers from developing countries face when trying to establish themselves as global market leaders.

SAB owns and operates 108 breweries in 24 countries, employs over 31,000 people and has developed into the world's fourth largest brewer by volume, with high profit margins in some countries. Like other South African businesses during the apartheid years, SAB operated within what is best described as a "siege economy". Companies were virtually immune from foreign competition but, because of sanctions, unable to expand abroad. The company had created a virtual monopoly, not only in South Africa but also in much of southern Africa, acquiring privatized breweries in neighbouring countries. Given the limited per capita income in much of its home region, further growth could only be achieved by venturing into new markets. In a second step of its transnationalization process, the company started to expand into other developing-country markets, especially into countries with large markets but a low level of penetration by developed-country competitors. From the mid-1990s onwards, SAB invested heavily in countries such as China and bought a number of formerly State-owned breweries in Central and Eastern Europe. The firm's international expansion has been driven by its skill in coping with the demands of an abnormal market – requiring a high degree of flexibility to overcome problems such as deficiencies in basic infrastructure – and its efficient production, making it one of the most efficient competitors in the industry.

For one thing, every year for the past two decades, SAB has reduced its prices in real terms, thus avoiding charges of abusing its monopoly, and it has wooed poor, price-sensitive customers, which is to say most South Africans. The company was able to cut prices because it boosted productivity. Its new bottling plant on South Africa's eastern coast, opened in 2000 at a cost of $60 million. It uses computers to control the quantity of hops used to brew beer and robots to load bottles onto trucks, only 13 people run a plant that turns out 50,000 hectolitres of beer per week in the standard bottle of 750-mililitre bottle – twice the industry average. South Africa's patchy infrastructure also deters potential rivals. In poor and rural areas, the roads are rough and the power supply sporadic. SAB has long experience in getting crates to remote towns and villages along poor roads, and making sure that distributors have refrigerators and, if necessary, generators. It has ties with the truck drivers who deliver its beer: many are former employees, whom the company helped to start their own small trucking businesses.

Despite these strengths and achievements, SAB's expansion into other emerging markets, although helping to achieve output and revenue growth, did little to solve the problem of a shortage of hard currency. In the past, almost two-thirds of the company's profits were in South African rand, now floating freely and weakening steadily. (In 2001, for instance, the rand lost 37 per cent against the dollar.) This creates serious difficulties for a company operating and competing at the international level. While the lion's share of its revenues continued to be in the form of "weak" currencies, be it in rand or other currencies, the acquisition of inputs such as machinery or the refinancing of loans had to be in "hard" currencies like the dollar.

One solution was to list SAB on a major international stock market, which helped it to raise capital for its acquisitions and the refinancing of loans at lower rates. This would also improve SAB's financial viability and relieve the currency problem. It became apparent, moreover, that the company could use its brewing skills in developed-country markets. The company therefore began to consider acquisitions in Europe and the United States.

After considering a number of opportunities (such as Bass Brewery in the United Kingdom), SAB finally announced, in May 2002, its acquisition of the Miller Brewing Company in the United States, making it the world's second largest brewer after world leader Anheuser-Busch. The proposed SAB-Miller deal, worth some $5 billion, will cut reliance on earnings in rand from around 65 per cent to under 35 per cent. Since there is little geographic overlap between the two brewers, the benefits might add up to $75 million a year from cost-cutting and from synergies, such as SAB using Miller's distribution to market its Pilsner Urquell in the United States.

The company pursues a market-seeking, multi-domestic strategy. Some of its brands are virtually synonymous with the country in which they are sold, and Miller would be no exception. Since SAB and its affiliates already enjoy a low-cost structure, the pressure for cost reduction is not so great as to drive them to transfer core competencies in production and distribution from their high-technology South African breweries to their international acquisitions. Thus, for the moment, they can concentrate on market penetration and revenue growth. This is in contrast to TNCs from industrial countries, which look overseas to outsource production to reduce costs and increase distribution channels.

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Box IV.2. A global player in brewing: South African Breweries (concluded)

This case also illustrates the emergence of a second stage of competition between developing-country TNCs; those that survive the intense competition of developed-country markets find themselves in a world ruled by firms that are masters of branding and marketing.

Source: UNCTAD, based on "Big lion, small cage", *The Economist*, 10 August 2000; "A pilsner's Bohemian rhapsody", *Financial Times*, 24 September 2001; "A niche brewer is making waves", *The New York Times*, 4 December 2001; "It's Miller time in Johannesburg", *Business Week*, 22 April 2002; "SAB's bid to buy Miller raises eyebrows", *Financial Times*, 25 May 2002; "SAB aims to wrap up Miller deal next week", *Reuters*, May 23, 2002; "SAB seals deal to buy Miller stake for $5bn", *Financial Times*, 30 May 2002, and company site (http://www.sabplc.com).

Table IV.16. Home countries of the top 50 TNCs from developing economies, by transnationality index and foreign assets, 1998, 1999 and 2000
(Percentage and number)

Economy	Average TNI[a] per country			Share in total foreign assets of the top 50			Number of entries		
	2000	1999	1998	2000	1999	1998	2000	1999	1998
South, East and									
South-East Asia	**32.4**	**39.1**	**35.8**	**73.3**	**72.0**	**65.7**	**33**	**36**	**38**
China	28.5	-	24.8	3.9	-	8.8	3	-	3
Hong Kong, China	42.0	45.4	56.6	38.9	26.4	22.0	11	11	10
India	-	9.6	7.7	-	0.7	0.8	-	1	1
Korea, Republic of	23.9	27.8	31.9	13.4	23.2	16.7	5	9	6
Malaysia	38.1	24.1	32.3	7.2	7.0	6.3	5	5	6
Philippines	28.1	25.0	30.1	1.1	1.1	1.5	1	1	1
Singapore	43.2	58.9	58.9	7.4	11.2	7.2	6	7	9
Taiwan Province of China	23.1	43.9	44.2	1.4	2.4	2.4	2	2	2
Latin America	**28.2**	**48.3**	**27.3**	**21.8**	**22.0**	**28.3**	**12**	**10**	**9**
Argentina	22.6	24.5	19.8	1.0	1.1	4.1	1	1	1
Brazil	24.1	30.2	18.5	4.7	5.6	7.6	4	3	3
Chile	15.8	35.4	21.8	0.7	1.8	3.4	1	1	1
Mexico	42.9	48.0	52.6	10.2	7.3	5.9	5	4	3
Venezuela	35.8	29.8	23.7	5.2	6.2	7.3	1	1	1
West Asia	**19.3**	**-**	**-**	**0.5**	**-**	**-**	**1**	**-**	**-**
Africa	**41.4**	**46.0**	**45.0**	**4.4**	**5.9**	**6.3**	**4**	**4**	**3**
Average/total[b]	**31.3**	**34.5**	**33.4**	**100**	**100**	**100**	**50**	**50**	**50**

Source: UNCTAD, FDI/TNC database.

[a] The transnationality index (TNI) is calculated as the average of the following three ratios: foreign assets to total assets, foreign sales to total sales and foreign employment to total employment.
[b] Numbers may not add up exactly due to rounding.
Note: This list does not include countries from Central and Eastern Europe.

Figure IV.7. Foreign assets of the largest TNCs from developing countries, 1999 and 2000
(Billions of dollars)
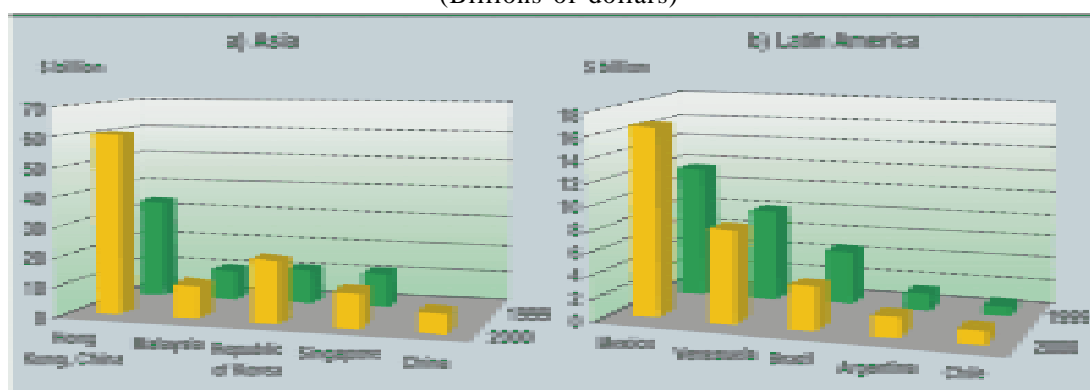
Source: UNCTAD, FDI/TNC database.

facilitated by the North American Free Trade Agreement (NAFTA) (*WIR01*). South African companies also have a high Index value. In various industries – retail (Pepkor), food and beverages (South African Breweries), pulp and paper (Sappi), diversified companies (Barloworld) – a handful of the long-isolated firms of South Africa undertook restructuring, in the face of increased competition and limited growth potential on the domestic market, spun off non-core business segments, and strategically invested abroad in core business areas.

Asian firms registered a slight decline in their values on the Transnationalization Index in 2000. Falling Index values for companies from Taiwan Province of China, Hong Kong (China) and Singapore accounted for much of this decline. Latin American firms also saw a decline in their Index values in 2000 as compared to 1999: except for Venezuela (Petróleos de Venezuela), firms from all other countries experienced a decline. The number of entries for Asia fell modestly in 2000, but was still high (33). The number of companies from Latin America rose from 10 to 12, including an increase in the number of Mexican companies. For the first time a company from West Asia was on the list, while the number of South African companies remained at four. As in previous years, no company from any other African country made it to the list.

2. The Network Spread Index

For the first time this year, *WIR* has also calculated the Network Spread Index for the top 50 TNCs and compares it with that for the top 100. The Index measures the degree of transationalization of a company by measuring the number of countries in which it has foreign affiliates. It is calculated as the ratio of the number of foreign countries (N) in which a TNC operates wholly-owned affiliates to the number of foreign countries (N*) in which it could potentially operate. The latter number is calculated for the countries (excluding the home country) which had a positive FDI stock in 2001, defining them as potential locations for FDI. All in all, this covered 187 countries.

The analysis of these results reveals some interesting aspects of the transnationalization of the top 50 TNCs, complementing the findings regarding the Transnationality Index and the other ratios mentioned in the main text of this section. The main findings are:

- The aggregated Network Spread Index for the top 50, is in all cases, very low and trails the aggregated Network Spread Index for the top 100. TNCs from the Republic of Korea have, on average, the highest Index value (figure IV.8). The aggregated Index value for all other developing countries is considerably lower. On first sight, this result is surprising, given the high transnationality values of TNCs from smaller economies such as Singapore and Hong Kong (China). This, however, is no contradiction, since many of the companies from these economies have their foreign operations concentrated in a limited number of locations abroad, a number of them in China. With countries from the different developing regions being well represented on the list, the level of the Network Spread Index does not appear to be dependent on the region in which a company originates. The fact that the Index values for developing countries are well below those for developed countries is not surprising. For one, most developed-country TNCs

Figure IV.8. Average Network Spread Index of the top 50, by home economy, 2000
(Percentage points)

Source: UNCTAD, based on information from Dun & Bradstreet, *Who Owns Whom 2002 CD-ROM.*

are simply much bigger in size, and therefore, often, also in geographical reach; they also have a longer history of international expansion; and, finally, while it is much easier for a developed-country TNC to explore developing-country markets, the reverse is much more difficult.

- Electronics is the industry in which companies have, on average, the widest spread. All other industries, beginning with the automotive industry, have much smaller Index values. Unsurprisingly, the electrical and other utilities are the least transnationalized industries by this criterion. Investment in these industries is capital-intensive, and the creation of complex production networks to explore locational advantages is not necessary. The ranking of industries by the Network Spread Index closely resembles that of industries by the Transnationality Index. The Network Spread Index in almost all industries is higher for developed-country TNCs than for developing-country TNCs. Also, although there are similarities between the two groups when the same industry is in question, the differences in Index values for individual industries are much wider for the top 100 than for the top 50 (figure IV.9). This, of course, is partially explained by the fact that the individual industry Index values for developing-country TNCs are much lower, and therefore, almost by definition, oscillate in a much narrower corridor. However, it might be also related to the fact that some industries in developing countries are at a more advanced stage of transnationalization than others.

The Network Spread Index rankings for individual industries show some similarities for developed and developing countries, but they are by no means identical. The industries that rank high on both lists are electronics, chemicals and, to a lesser extent, food and beverages. There are also industries with a low Index ranking, among developed as well as developing countries. These include construction as well as electrical and other utilities. For most other industries, the picture is unclear: some industries that rank relatively high in the top 100 rank relatively low among the top 50 (e.g. oil and petroleum or diversified companies). On the other hand, there are industries that rank higher in developing than in developed countries, such as transport, and pulp and paper.

Figure IV.9. Comparison of the Network Spread Index by industry, between the top 100 and the top 50 TNCs
(Percentage points)
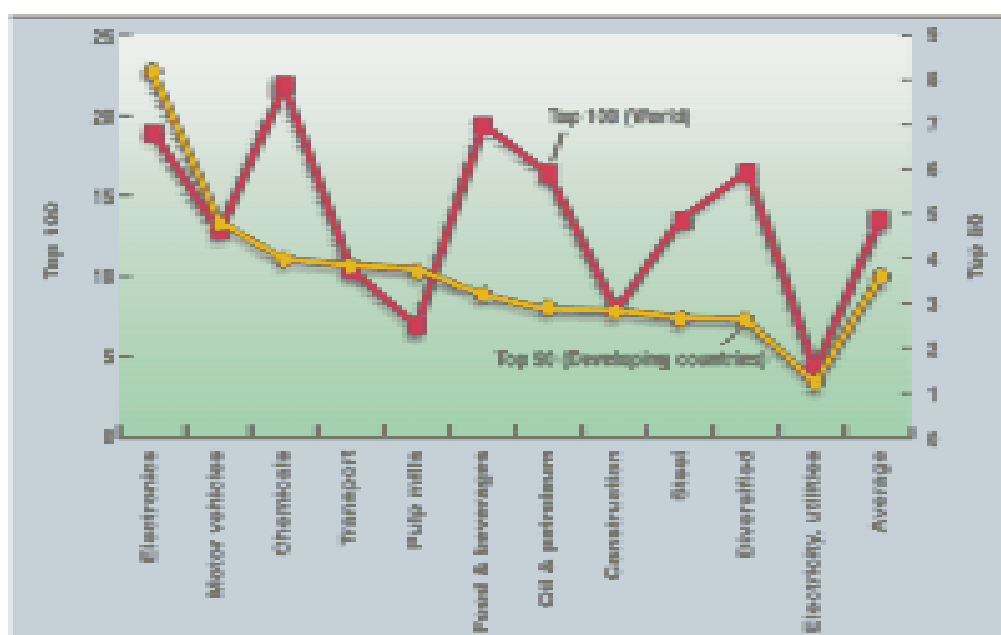
Source: UNCTAD, based on information from Dun & Bradstreet, *Who Owns Whom, 2002 CD-ROM*.

C. The 25 largest TNCs from Central and Eastern Europe

Most of the 25 largest non-financial TNCs based in CEE continued to grow in 2000, expanding more abroad than at home (table IV.17). They achieved double digit growth rates of their foreign assets, foreign sales and foreign employment. However, their domestic assets and domestic sales increased only moderately (confirming previous trends),[7] while their domestic employment contracted.

Data for the top 25 in 2000 confirm that Russian TNCs are much larger and more globally spread than their non-Russian counterparts. Lukoil Oil, the largest with foreign assets of more than $4 billion, compares with the largest 10 TNCs from developing countries. In foreign assets, foreign sales and foreign employment, the average for Russian firms on the list is more than 10 times higher than the average for other firms (figure IV.10). They are also more transnationalized and have a higher Network Spread Index. These large differences may partly be due to differences in the industry composition. All Russian firms in the sample are involved either in natural resources or in transport, activities that are more capital-intensive than most manufacturing activities.

However, not all top TNCs in the region are on a growth path. While most Russian and Slovene firms (box III.12), for example, are on an outward expansion path, some Czech, Slovak and Polish firms are undergoing major restructuring, which often involves withdrawal from foreign activities. As a result of these changes, four firms left this list in 2000: Motokov (Czech Republic), Slovnaft (Slovakia), Elektrim (Poland) and Croatian Airlines (Croatia).

Of the four newcomers, Novoship is a fast expanding Russian transport firm. The other three – Mercator, Merkur and Iskraemeco – are all from Slovenia. From 1999 to 2000, Merkur more than tripled its foreign assets. Mercator grew even faster: with the opening of large supermarkets in Bosnia and Herzegovina and Croatia, it increased its foreign assets from less than one million to over $60 million in one year.

Preliminary data suggest that changes in the top 25 list will continue in 2001.

For example, Tiszai Vegyi Kombinát (Hungary)[8] and KGHM Polska Miedz (Poland) substantially rolled back their foreign presence in 2001. In addition, Skoda Group Plzen (Czech Republic) underwent a bankruptcy procedure (Kirkland and Kuchar, 2002), resulting in a further shrinking of assets both at home and abroad. Their place may be taken by firms fast expanding abroad in 2001, such as the Russian oil firm, Yukos, and the Hungarian pharmaceutical firms, TNC Richter Gedeon (Csonka, 2002).

The industry composition of the list remained stable in 2000. Transport (7 firms), petroleum and natural gas (4 firms) and pharmaceuticals (3 firms) kept their prominence. Trade caught up with 3 companies on this list.

Compared with previous years, the country concentration of the top 25 rose in 2000. With eight firms, Slovenia is the most represented country on the list, followed by Croatia, Hungary and the Russian Federation (4 firms each). The remaining five entries are shared among five countries (Czech Republic, Latvia, Poland, Romania and Slovakia). This country composition reflects the fact that the outward FDI of the Russian Federation and Slovenia was carried out mainly by domestic firms – hence these firms are shown prominently on the list of the 25 largest TNCs. In other countries, however, an important part of outward FDI was carried out by foreign affiliates, which do not figure on the top 25 list.

Figure IV.10. The top 25 TNCs of CEE: comparison of Russian and other firms, 2000
(Russian firms = 100 per cent)

Source: UNCTAD survey of the top TNCs in Central and Eastern Europe.

Table IV.17. The top 25 non-financial TNCs based in Central and Eastern Europe,ᵃ ranked by foreign assets, 2000

(Millions of dollars and number of employees)

Ranking by Foreign assets	Ranking by TNIᵇ	Corporation	Country	Industry	Assets Foreign	Assets Total	Sales Foreign	Sales Total	Employment Foreign	Employment Total	TNIᵇ (Per cent)
1	11	Lukoil Oil	Russian Federation	Petroleum and natural gas	4 189.0	12 008.0	7 778.0ᵈ	14 436.0	20 000	130 000	34.7
2	6	Novoship	Russian Federation	Transport	963.8	1 107.0	271.5	372.0	88	7 406	53.7
3	1	Latvian Shippingᶜ	Latvia	Transport	459.0	470.0	191.0	191.0	1 124	1 748	87.3
4	5	Primorsk Shipping	Russian Federation	Transport	256.4	444.1	85.3	116.5	1 308	2 777	59.4
5	24	Hrvatska Elektroprivreda	Croatia	Energy	296.0	2 524.0	10.0	780.0	..	15 877	4.3
6	7	Gorenje Group	Slovenia	Domestic appliances	236.3	420.8	465.5	615.5	590	6 691	46.9
7	10	Far Eastern Shipping	Russian Federation	Transport	236.0	585.0	134.0	183.0	263	8 873	38.8
8	13	Podravka Group	Croatia	Food and beverages	..	440.1	139.8	316.5	516	6 827	31.6
9	9	Pliva Group	Croatia	Pharmaceuticals	181.9	915.9	384.7	587.6	2 645	7 857	39.7
10	3	Atlantska Plovidbaᶜ	Croatia	Transport	138.0	154.0	46.0ᵈ	46.0	..	509	63.2
11	8	Krka	Slovenia	Pharmaceuticals	129.2	462.4	212.0	273.0	483	3 322	40.0
12	20	MOL Hungarian Oil and Gas	Hungary	Petroleum and natural gas	102.7	3 281.6	758.8	3 632.2	870	18 016	9.6
13	14	Tiszai Vegyi Kombinát	Hungary	Chemicals	101.2	481.8	272.9	537.8	208	4548	25.4
14	2	Adria Airwaysᶜ	Slovenia	Transport	116.3	129.2	103.4	104.6	19	597	64.0
15	19	Petrol Group	Slovenia	Petroleum and natural gas	98.8	536.1	129.0ᵈ	1 187.9	49	1 943	10.6
16	22	Mercator	Slovenia	Retail trade	65.1	777.9	16.2	1 055.7	487	13 208	4.5
17	4	Zalakerámia	Hungary	Clay product and refractory	60.0	112.0	39.0	62.0	1 958	2 966	60.8
18	15	Skoda Group Plzen	Czech Republic	Diversified	..	..	210.4ᵈ	358.6	..	10 628	26.2
19	12	Malév Hungarian Airlines	Hungary	Transport	41.4	187.0	299.0	383.4	49	2 952	33.9
20	18	Matador	Slovakia	Rubber and plastics	..	206.7	44.8	231.7	..	3 775	13.1
21	21	Merkur	Slovenia	Trade	37.3	400.6	45.3	449.8	89	2 944	7.5
22	25	KGHM Polska Miedz	Poland	Mining and quarrying	32.3	1 389.5	66.2	1 146.7	26	18 562	2.7
23	23	Petrom	Romania	Petroleum and natural gas	28.0	3 151.0	303.0	2 423.0	149	77 630	4.5
24	16	Iskraemeco	Slovenia	Electrical machinery	25.8	93.8	42.0	128.2	280	2 159	24.4
25	17	Intereuropa	Slovenia	Trade	23.0	173.0	19.0	144.0	513	2 168	16.7
		Average			323.8	1 230.8	482.7	1 190.5	1 400	14 159	32.2
		Change from 1999 (per cent)			22.2	7.6	27.9	11.5	38.4	-7.2	-0.3

Source: UNCTAD survey of top TNCs in Central and Eastern Europe.

ᵃ Based on survey responses.
ᵇ The transnationality index (TNI) is calculated as the average of the following three ratios: foreign assets to total assets, foreign sales to total sales and foreign employment to total employment.
ᶜ 1999 data.
ᵈ Including export sales by the parent firm.
.. Data on foreign assets, foreign sales and foreign employment were not available. In case of non-availability, they are estimated using secondary sources of information or on the basis of the ratios of foreign to total assets, foreign to total sales and foreign to total employment.

The Network Spread Index of the 25 largest TNCs of Central and Eastern Europe is significantly lower than that of the world's largest TNCs. At the end of 2001, the Network Spread Index of the former stood at less than 4 per cent. Indeed, most of the leading TNCs in CEE are at an early stage of transnational expansion. Their investments abroad are undertaken either in neighbouring countries or, in the case of transport, in key maritime locations. There are, however, some differences by origin and industry. The Index of Russian, Croatian and Slovene firms, for example, is above average. In machinery and pharmaceuticals as well, the network spread is relatively wide.

Even for Russian TNCs, on average, the Index values are only a third of those for the top exporters of the country (table IV.18 and annex table A.IV.1). While the average Russian TNC is present in less than 10 foreign markets, the average lead exporter sells in 27 countries. In petroleum and natural gas, the spread of markets through exports is twice as frequent as the spread of firms through outward FDI.[9]

Table IV.18. The Network Spread Index of the top 50 Russian exporters, by industry, 2000

(Per cent)

Industry	NSI
Petroleum and natural gas	8.57
Non-ferrous metallurgy	8.24
Iron and steel	24.78
Machinery and equipment	9.59
Chemical and petrochemical	14.57
Wood, timber and pulp	28.47
Electrical power	4.08
Coal and coke	3.57

Source: UNCTAD, based on *Expert* (Moscow), No. 27 (287), 16 July 2001.

Notes

[1] Financial firms are not included because of the different economic functions of assets of financial and non-financial firms and the non-availability of relevant data for the former.

[2] These figures are based on the estimates of the 1999 sales, assets and employment of foreign affiliates of TNCs, as shown in table I.1. However, these ratios, especially those relating to sales and assets, should be treated with caution, as the data on the foreign assets and sales of the top 100 TNCs, obtained mainly through a questionnaire completed by firms, may not necessarily correspond to the definition of foreign assets and sales used in table I.1.

[3] The descent of this company from the seventh to the fourteenth place on the list is due to the fact that both Germany and the United States are now considered to be its home countries. This resulted in lower figures for foreign assets, sales and employment.

[4] It should be noted that foreign sales include sales of foreign affiliates of TNCs as well as exports from parent firms. A small number of the TNCs surveyed – approximately 22 per cent – distinguish between the two categories in their reporting. As only total foreign sales figures are available for most companies, these figures have been used for all companies cited in this section. If this sample is representative, foreign sales figures, as given here, overestimate the actual sales of foreign affiliates of the top TNCs by some 10 per cent, especially in the primary and manufacturing sectors. For international production and exports from parent firms of Japanese TNCs, see table III.1.

[5] The average Transnationality Index value of the world's top 100 TNCs is the average of the 100 individual transnationality indices of the companies on the list.

[6] In 1999, the company sold its interest in Orange to Mannesmann and received Mannesmann shares in return. A few months later, in spring 2000, when Vodafone took over Mannesmann, Hutchison Whampoa was offered a 5 per cent stake in Vodafone in return for its Mannesmann shares.

[7] See *WIR99*, p. 92; *WIR00*, p. 90; *WIR01*, p. 114.

[8] In 2002, MOL Hungarian Oil & Gas Plc. took over Tiszai Vegyi Kombinát.

[9] It should be noted that some of the top Russian oil and gas exporters are also leading outward investors. In such cases, the differences in the network spreads reflect corporate choices between serving markets through trade or through FDI.

PART TWO

TNCs AND EXPORT COMPETITIVENESS

INTRODUCTION

One of the contributions TNCs can make to host economies in the developing world is to enhance their export competitiveness. Export competitiveness has many facets, the most obvious implying higher exports. But it also means diversifying the export basket, sustaining higher rates of export growth over time, upgrading the technological and skill content of export activity, and expanding the base of domestic firms able to compete globally; thus, competitiveness is sustained and it is generally accompanied by rising incomes. TNCs can help raise competitiveness in developing countries in some or all of these ways, but tapping their potential is not easy. Attracting export-oriented TNC activities is itself an intensely competitive business, and even some of the countries that have succeeded may find it difficult to sustain competitiveness as their wages rise and market conditions change. Coherent and consistent policy support is essential to ensure that attracting export-oriented TNC activities are embedded in a broader national development strategy. This is particularly important as there is a possible tension between the principal objective of Governments – which is to maximize *national* welfare – and the principal objective of TNCs – which is to maximize their *global* corporate competitiveness. Export competitiveness is important and challenging, but it should be seen not as an end in itself but as a means to an end – which is development.

The link between FDI and trade is not new but well worth revisiting, especially in the light of the growing attention to the challenge posed by competitiveness,[1] but also in the light of the changing nature of international production systems, the growth of supplier networks and new multilateral disciplines. In *WIR99*, as part of the examination of FDI and the challenge of development, one chapter was devoted to the link between FDI and trade. The principal conclusions were that TNCs exert a strong influence on the patterns of world trade, that much of the international flow of goods is handled within TNCs in the form of intra-firm trade, and that inward FDI has contributed to boosting the export performance of a number of developing host countries. This year's report builds on the findings of *WIR99* by looking in greater detail at the role of TNCs in increasing export competitiveness and the corporate strategies that are driving most of the recent changes in the pattern of international trade. These have to be understood in order to achieve a better understanding of the role that policy can play to foster export competitiveness in association with TNCs.

Accordingly, Part Two of *WIR02* explores the changing nature of export competitiveness and the role that TNCs play in enhancing it in different countries and activities. Part Three then deals with the policies developing countries (and economies in transition) might consider to attract export-oriented FDI and benefit from it.

That export competitiveness[2] is of growing interest to countries at all levels of development is clear: the sheer volume of analysis and benchmarking testifies to the importance that Governments attach to it. Developed countries regard competitiveness as a prerequisite for maintaining high levels of income and employment.[3] Developing countries find it essential for development. Improved export competitiveness allows countries to earn more foreign exchange and so to import the products, services and technologies they need to raise living standards and productivity. Greater competitiveness allows developing countries to diversify away from dependence on a few primary-commodity exports and move up the skills and technology ladder, which is essential to sustain rising wages. It also permits the realization of greater economies of scale and scope by offering larger and more diverse markets.

New forms of export competitiveness, geared to international systems of production, can allow developing countries to enter technology-intensive activities that they could not otherwise undertake. In the process, it allows them to build new productive capacities. Exporting feeds back into the capacities that underlie competitiveness: exposure to world competition provides enterprises with greater access to information and technology than exposure to domestic competition alone and leads to more vigorous efforts to acquire new skills and capacities.[4] An export-oriented economy also tends to attract more efficient TNC activities, which reinforces the upgrading.

There is ample recent evidence that export-oriented development is not only feasible but also rewarding. However, raising export competitiveness means more than liberalizing trade and investment. The most successful countries had to make determined efforts to develop new capabilities and to attract foreign capabilities to complement domestic ones. All drew heavily on new technologies from TNCs, and many, but not all, relied on FDI or non-equity forms to spearhead the process.

This is not to argue that building export competitiveness is a complete strategy for economic development. It is only one of a number of elements needed for development. It has to be complemented by measures to ensure that the non-export sectors of an economy grow and that the benefits of growth are spread throughout the economy. If the export sector is de-linked from the rest of the economy, it is possible to improve export competitiveness without raising growth rates or living standards for the population at large. This is, however, rare; a number of exporting economies have been able to grow on the back of their export drives, including by moving up the technological ladder from labour-intensive activities towards technology and skill intensive ones (UNCTAD, 2002a).

TNCs can contribute to the export competitiveness in host countries. Their contribution is important in technology-intensive and internationally branded products, but it goes much further. They have always been significant players in primary exports and the main source of new industrial technologies for local exporters (through arm's-length licensing and original-equipment-manufacture arrangements). With the spread of global value chains in many low- and medium-technology activities, TNCs are now involved in the whole spectrum of manufactured exports. In some low-technology segments, other international players are also active, and TNCs often take the role of coordinating local producers in addition to setting up their own affiliates. In many technologically complex activities, TNCs are particularly important because a large part of trade is internal to their international production systems.

While the growth of international production systems is well recognized, it is less well known that there is a growing tendency for firms, even large TNCs, to specialize more narrowly and to *contract out* more and more functions to independent firms, spreading them internationally, to take advantage of differences in costs and logistics. Some are even opting out of production altogether, leaving contract manufacturers to handle it while they focus on innovation and marketing. The main suppliers and contract manufacturers are themselves often large TNCs, with global "footprints" matching those of their principals and with their own subcontractors and suppliers. However, TNCs also increasingly use national suppliers and contractors in host economies. Specialization does not stop here: leading TNCs are also entering into joint innovation arrangements with other firms – competitors, suppliers or buyers – and with institutions such as research laboratories, universities and so on. Thus, the emerging global production system is becoming more multifaceted , but with tighter coordination by lead players in each international production system.

What lies behind these trends? Three forces are driving them. The first is policy liberalization, which opens up national markets and allows all kinds of FDI and non-equity arrangements. The second is rapid technological change, with its rising costs and risks, which makes it imperative for firms to tap world markets and share the costs and risks. Technological change – in particular, falling transport and communication costs, the "death" of distance – also makes it economical to integrate distant operations and ship products and components across the globe in a search for efficiency. The third, reflecting both of these, is increasing competition, which results in unexpected forms of relocation to new sites, with new

ownership and contractual arrangements, and involving new activities.

All the signs are that the export role of TNCs in host countries, through both FDI and non-equity arrangements, will grow further. It will continue to take new forms and incorporate new locations. The potential for generating exports from developing countries and economies in transition is thus high. But, as noted, tapping this potential is not easy.

Part Two of *WIR02* deals with these themes. It starts with the characteristics of international production systems, exemplifying them for a number of firms. It describes changes in global competitiveness patterns, the direct role of TNCs in exports (their indirect contribution is difficult to trace quantitatively) and the main country "winners" in export competitiveness. The *main messages* of the analysis are as follows.

Trade patterns are changing rapidly, with technology-intensive activities growing consistently faster than others. As a group, developing countries and economies in transition have done well in export competitiveness, rapidly raising their market shares and upgrading into advanced activities.

TNCs have played an important role in the exports of many countries, directly by establishing in those countries affiliates incorporated into the TNCs' international production systems, and indirectly by entering into contractual arrangements, especially with suppliers linked to the TNCs' production systems. However, such systems are still largely concentrated by country, region and activity. It is possible that the export dynamism seen in the leading "winners" will spread to other developing countries and economies in transition as international production gathers pace and increases in scope. But there are risks and there are opportunities. First the risks:

- The bulk of TNC-related export activity in developing economies and economies in transition is concentrated in a handful of economies, mainly in East and South-East Asia and in regions contiguous to North America and the European Union, although TNCs are also significant players in many countries that are not major global exporters.

- It is unclear whether some large production systems *can* spread further, for technological reasons. Once production has been rationalized to serve regional or world markets, first movers tend to build strong cumulative advantages, reaping economies of scale and scope and drawing upon clusters of suppliers and institutions.
- The entry-level requirements of competitive production are rising. Not only is technological progress pushing up skill requirements, TNCs also increasingly need efficient supplier networks that can operate globally and at much higher levels of technological sophistication than before.
- Even "insiders" to international production systems face uncertainty about their prospects. A number of low-technology systems such as textiles, clothing and footwear, on which many countries have relied, may have peaked in growth. The more high-technology systems are imposing more stringent demands on participants. Host countries that cannot muster new capabilities may lose their competitive edge: even first-mover advantages may not last without upgrading.
- A concentration of exports from developing countries on a few manufacturers might lead to oversupply and a subsequent deterioration of the terms of trade – often referred to as the "fallacy of composition" dilemma (UNCTAD, 2002a, ch. 4).
- Some trade arrangements that caused a spreading of international production in some low-technology industries will be phased out or else eroded by further trade liberalization. The Multifibre Arrangement is an example.

But there are also opportunities:

- International production *is* spreading and can be expected to do so as countries further liberalize trade and investment regimes and improve their infrastructure and skills, and as competition pushes firms to spread their activities more widely to strengthen their competitive advantages.
- Leading TNCs are increasingly drawing independent enterprises into their production systems: input suppliers, service providers and strategic partners. This offers considerable scope to enterprises from host economies that build the capabilities to meet TNCs' needs.

- TNC suppliers and contract manufacturers are going transnational to retain competitiveness and to serve lead firms effectively, opening new sources of export-oriented FDI for developing countries.
- Rising costs and congestion may at some stage offset first-mover advantages, and activities then spread to cheaper and less congested areas.
- The increased tradability of services as well as of specialized service functions associated with international production systems will open entirely new areas for an international division of labour.
- Advances in transport technology may open up new possibilities for high-value agricultural and other primary products.
- New globalized activities will emerge as the economic logic of relocation and networking spreads. This is already evident in the software industry, where the "death" of distance is most evident, but it will also affect other service and manufacturing activities.

It is too early, of course, to forecast the net outcome of all these trends. The results are very likely to be industry- and context-specific. The forces driving international production systems are strong, but competition for export-oriented TNC activities is also rising. Achieving and sustaining export-competitiveness calls for higher local capabilities in all activities and all countries. If developing countries and economies in transition are to strengthen competitiveness (with or without direct TNC participation), they will have to strengthen their capabilities, attract and stimulate activities suited to their endowments, and upgrade them over time.

Notes

[1] For a discussion of the broader question of TNCs and competitiveness, see *WIR95*.

[2] "Export competitiveness" is taken here in the broad sense outlined above. Thus, it does not mean raising world market shares by keeping wages low, but sustaining world market shares while raising incomes.

[3] For instance, the OECD has this to say: "Competitiveness [should] be understood as the ability of companies, industries, regions, nations and supranational regions to generate, while being and remaining exposed to international competition, relatively high factor income and factor employment levels on a sustainable basis" (OECD, 1994, p. 23). The Government of the United Kingdom's *Third White Paper* on competitiveness starts: "Improving competitiveness is central to raising the underlying rate of growth of the economy and enhancing living standards… The need to improve our competitiveness is not imposed by Government, but by changes in the world economy. Improving competitiveness is not about driving down living standards. It is about creating a high skills, high productivity and therefore high wage economy where enterprise can flourish and where we can find opportunities rather than threats in changes we cannot avoid" (United Kingdom, Cabinet Office, 1996, p. 10). For an analysis of the concept of competitiveness, see Lall, 2001.

[4] There is a debate on whether exporting leads to greater enterprise productivity or *vice versa*. The relationship between the two is probably interactive (Westphal, 2002). The technology capability literature establishes that export-oriented economies enjoy healthier and more competitive capabilities than inward-looking ones, though even the former may need a period of infant-industry protection when building advanced capabilities in local enterprises (Lall, 2001b).

CHAPTER V

INTERNATIONAL PRODUCTION SYSTEMS

A. Drivers and features

TNC activities affect the export performance of host countries through a range of equity and non-equity relationships. What is common to all of them is that production – and, more broadly, the operations of a firm – is organized under the common governance of TNCs. During the past 15 years, falling barriers to international transactions have not only invigorated global markets through arm's-length transactions but given rise to elaborate corporate systems of organizing the production process. As a result, *international production systems* have emerged within which TNCs locate different parts of the production processes, including various services functions, across the globe, to take advantage of fine differences in costs, resources, logistics and markets (*WIR93*). What is distinct about the rise of international production systems as compared to earlier organizational structures and strategies characterizing TNC operations is, first, the intensity of integration on regional or global scales and, second, the emphasis on the efficiency of the system as a whole (Kaplinsky, 2000, p. 122). In other words, global markets increasingly involve competition between entire production *systems,* orchestrated by TNCs, rather than between individual factories or firms.

The rise of such integrated international production systems reflects the response of TNCs to dramatic changes in the global economic environment, and, in particular, their search for enhanced competitive advantage through an optimal global configuration of where they produce and how they coordinate their production activities. Several forces combine to drive this process:

- The rapid decline in barriers to international trade and investment flows. The creation of a corporate international production system is made possible by the freedom to move goods, services and knowledge among linked corporate entities with minimal impediments, even when these are situated in widely dispersed locations.

- The greater ease of the international flows of goods, services and ideas and the resulting drop in the costs of cross-border business coordination. Advances in transport and communication technologies have continued apace in recent years, and TNCs have deployed new systems to enhance their internal and external coordination. The advent of the Internet has dramatically lowered the costs of information exchange over great distances. More streamlined and standardized customs administration and port operations as well as international telecommunication gateways and satellite and fibre-optic networks further facilitate international production, including the coordination of knowledge-intensive functions such as design and R&D.

- These two forces have, together, led to stronger competition among leading TNCs. In a growing range of industries, major producers must contest all of the markets in which their competitors operate and draw on sources of competitive advantage wherever they may be located. No longer can a dynamic firm focus only on familiar markets, since its competitors may mobilize profits or resources across the globe.

All of this has led to profound changes in industrial structures. In some industries (e.g. semiconductors and automobiles), they have led to consolidation and oligopolistic competition; in others (e.g. garments), to a diffusion of market power. Corporate strategies have evolved too, as TNCs have sought to devise new forms of governance to manage their dispersed activities.

International production systems are thus evolving as corporations respond to economic and technological forces. Given their growing importance in shaping investment

and trade patterns, understanding their dynamics is essential for any developing country that seeks to enhance its export competitiveness through the activities of TNCs.

Three core elements of international production systems are critical in this context: governance, global value chains and geographic configuration.

The first element is *governance*, or the structure of control that determines the geographic and functional distribution of business activities and ensures their coordination. International production system governance occurs in forms ranging from ownership (or equity) linkages that provide direct managerial supervision, to various non-equity linkages in which formally independent intermediaries – suppliers, producers and marketers – are linked through a variety of relationships such as franchising, licensing, subcontracting, marketing contracts, common technical standards or stable, trust-based business relationships. Intel has created an international production systems in which equity – or ownership – links form the basis for common governance of the members of the system (section B.1 below), while Limited Brands has established a system based on non-equity relationship (section B.2 below). Toyota exemplifies a mixture of both approaches, by combining close links among its own fully-owned assembly subsidiaries with a multi-tiered network of formally independent subcontractors (section B.3 below). The case study of Ericsson (section B.4 below) traces the transition in control from a largely equity-based system to an almost fully non-equity-based system (although Ericsson has retained direct control over manufacturing, i.e. over product lines related to its core focus on innovation and design). The continuum of international production system governance thus reflects the degree of control over corporate activities. Equity-based governance systems internalize control and allow stronger protection of firm-specific advantages like technology, as in the case of Intel. Where these advantages lie in brand names and marketing – as in the case of Limited Brands – more externalized forms of control may suffice.

A related issue is the degree of functional hierarchy in the system. In some international production systems, each stage of production is assigned to specific corporate affiliates and deployed globally, with each unit in the system guided by a headquarters company (sometimes referred to as an international production system "flagship" – see Rugman and D'Cruz, 2000). In Intel's hierarchical international production system, individual affiliates specialize in particular stages of innovation or production and are closely integrated into the parent firm's global network. At the other end of the spectrum are systems in which an integrated set of business functions is decentralized to multiple centres, often regional headquarters, that wield considerable autonomy. An example is the distribution of "global product mandates" to various affiliates. In this case, international production system governance takes on a more horizontal character. Toyota presents an intermediate case, in that affiliates in the United States and Thailand have been given "regional product mandates" for certain product lines. These two aspects of governance (equity or internalized vs. non-equity or externalized, and hierarchical vs. horizontal) are related. In general, equity-based international production systems tend to be organized hierarchically, while externalized systems operate more horizontally. Yet the distinction is important, for the two criteria are not always perfectly correlated. In the garments industry, for example, the international division of labour has, over time, become vertically specialized and hierarchically integrated under the leadership of brand-holding flagship companies like Limited Brands despite the near-absence of equity links. On the other hand, some TNCs with global networks of wholly-owned subsidiaries have moved towards more horizontal forms of coordination.

A striking recent governance trend in many manufacturing and service international production systems is a shift towards the systematic outsourcing of a greater range of activities, including back-office operations like customer service and even R&D. This reflects TNCs' efforts to focus on their "core competencies", i.e. those activities in which they can deploy proprietary advantages, wield market power or otherwise enjoy higher returns. The trend suggests in particular that technological advances and competitive pressures have altered the balance between two opposing firm-specific advantages sought by TNCs – internalization versus specialization – in favour of the latter. The outsourcing trend has complex implications

for global industry structures, creating entire new industries. In particular, leading TNCs in a range of industries have begun to exit from manufacturing altogether. In response, *contract manufacturers* have emerged to specialize exclusively in providing turnkey manufacturing services (see section B.5 below). Contract manufacturing differs from the earlier system of original equipment manufacturers sub-contracting in that the brand-holding TNC does not simply draw on subcontractors for extra production capacity, but rather outsources the entire manufacturing function for individual product lines or, in some cases like Cisco Systems, the entire product range.

Despite the outsourcing trend, direct equity and managerial control remain key sources of competitive strength in certain industries. Even when international production systems are highly externalized, TNCs typically exert powerful authority through their control of key functions, such as brand management and product definition, as well as through the setting and enforcing of technical, quality and delivery standards throughout a network of formally independent producers.

The second element of an international production system is the organization and distribution of production activities and other functions in what is commonly known as the *global value chain*. It extends from technology sourcing and development through production to distribution and marketing (figure V.1). The core competitive advantages of TNCs can reside anywhere along the value chain, although, in practice, they tend to cluster in one component. Value chains are becoming fragmented, as business functions are differentiated into ever more specialized activities. Functional specificity allows TNCs

to distinguish activities with widely varying inputs, capacity requirements and financial returns, even within the same industry or production process. As a result, there is a general trend towards functional specialization, which contrasts with the type of vertically integrated structures that characterized many TNCs until quite recently. Intel, for example, focuses on the design and manufacture of microprocessors and a few related products (see section B.1 below), rather than combining captive in-house chip production with the production of computer systems, as was long the strategy of IBM, NEC and Samsung. In many industries, TNCs have recently tended to focus more on the knowledge-intensive, less tangible, functions of the value-chain such as product definition, R&D, managerial services, and marketing and brand management. This has long been true of the garment industry, where leading TNCs focus almost exclusively on design and marketing (see Limited Brands, 2001). Even in many "high-technology" industries, however, manufacturing as well as logistics and distribution have become standardized and more easily tradable. In consequence, contract electronics manufacturers have grown rapidly (section B.5 below).

In general, international production systems may be distinguished by the functional activity on which a TNC focuses and which gives it governance authority over the broader production system. Intel's core strategy is to establish market dominance through the innovation and design that differentiate its products. Hence the activities that result in a finished Intel product are those of a "technology-driven" international production system. Toyota's core competence is its ability continuously to improve quality and

Figure V.1.   The global value chain of product components

Source: UNCTAD.

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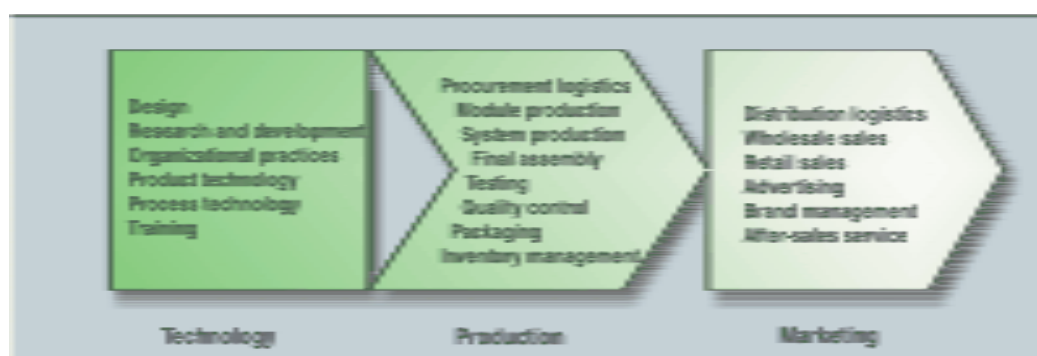
productivity in the complex automotive industry. Automotive international production systems are thus "production-driven". Finally, in many consumer-product sectors, the ability to build brand value and capitalize on changing tastes and styles is the key to competitive strength, as exemplified by Limited Brands' success in the garments industry. Such international production systems are "marketing-driven".

These two elements of international production systems – governance and the value chain – can be used to analyse a variety of international production systems involved in international investment and exports. Table V.1 provides a matrix of international production system systems with illustrations taken from the case studies presnated below.

The third element of international production systems, which holds particular interest for developing countries, is their *geographic configuration* in an effort to acquire a portfolio of locational assets that maximizes the competitiveness of the corporate system as a whole. The past 15 years have seen great changes in the determinants of the optimal location of TNC activities, and hence in the geographic distribution of technology, production and marketing activities within international production systems. Production has been internationally dispersed for decades, but the trend towards integration over ever larger geographic scales is relatively new. Supply chains have extended to new areas of the globe and integrated formerly distinct regional production zones. Contract manufacturing and the production of key components in electronics and other industries have witnessed a consolidation trend in the past few years. The surviving large-scale supplier firms increasingly seek a global presence, particularly by co-locating near the key facilities of their international

production system flagship customers (Sturgeon and Lester, 2002). Related to this is the recent trend towards "postponement", in which components are made or assembled as close to the final point of sale as possible in order to reduce transport costs, which remain important for a range of products. This may pose great challenges to those "winners" in the global export trade that have previously thrived as accommodating, but distant, off-shore production platforms.

Perhaps a more striking trend has been the geographic dispersal of other global value chain functions. The internationalization of business service and support functions has progressed rapidly in recent years. Even innovation, presumably the function most firmly anchored in home countries by specialized skills and strategic motivations, is increasingly being carried out on a global stage. Developed countries continue to perform most of the research aimed at radical breakthroughs, but the developing world now carries out significant R&D.

Simplified, three sorts of drivers are acting simultaneously on the locational decisions of TNCs and their partners in international production systems. *Cost differentials* remain a fundamental factor in the location of productive activities. Changing governance models and functional differentiation (the first two elements of an international production system) have subjected a growing range of activities to the logic of cost optimization, including R&D and managerial processes like accounting, information systems development, and marketing. In locational decision-making, however, production costs are always evaluated relative to the efficiency and productivity of a location. This point is often overlooked in discussions of comparative costs, but it is particularly crucial in that a major focus of TNCs' geographic

Table V.1. Examples of different international production systems

TNCs' governance functional focus	Internalized (Equity-based control)	Mixed (Equity- and non-equity-based control)	Externalized (Non-equity-based control)
Technology-driven	Case 1: semiconductors – *Intel*		Case 4: telecom equipment – *Ericsson/Flextronics*
Production-driven		Case 3: automotive – *Toyota*	
Marketing-driven			Case 2: garments – *Limited Brands / Li & Fung*

Source: UNCTAD.

allocation of value-chain activities is to achieve *systemic* efficiencies across their entire international production systems. A given location, therefore, is judged by how cost-efficiently it performs a given function in coordination with functions located elsewhere, and not merely in isolation.

Asset-seeking motives are also leading TNCs to tap skills and knowledge in a more systematic way on the global scale. As noted above, advances in information processing and telecommunications enhance TNCs' abilities to coordinate complex functions over great distances. This not only allows them to deploy functions in new locations, but also enhances their interest in mobilizing a wider range of skills and knowledge in a greater variety of locations.

Finally, *clustering* has become a key influence on TNCs' locational decision-making. Earlier studies have described the fortuitous emergence of geographic concentrations of related activities in production, specialized services, R&D and the like (Schmitz and Nadvi, 2000). Increasingly, however, cluster-formation is a global process reflecting recognition by a number of TNCs of the value of co-location with suppliers, competitors, service providers, and knowledge-intermediaries. Their intentional efforts to capture tacit-knowledge spillovers suggests that first-mover advantages for nodes in international production systems may be durable despite the increasing mobility of TNC assets and functions. Alternatively, it might suggest that countries seeking to enter into international production systems, or seeking to occupy more complex niches within such systems, might need to reach a critical mass of related investments before doing so.

These broad structural trends are now crucial drivers of the geographic reorganization of TNC activities. Paradoxically, TNC activities of all sorts are becoming increasingly "footloose", even as geographic clusters grow in importance. While distance might matter less for many transactions, proximity and access to tacit or partly tacit knowledge is increasingly vital for competitive advantage. Nonetheless, it must also be recognized that these trends are not the only determinants of geographic configurations of international production systems. There are also sectoral and national (or cultural) factors. For example, competitive strength in microprocessors depends on design innovation,

and the need to protect technology assets leads to an internalized, vertically integrated approach. On the other hand, success in the garments industry requires knowledge of fast-changing market trends; hence, externalizing production to a horizontal array of independent subcontractors confers cost advantages so long as these are able to meet design, quality and delivery standards. Then there are the national origins of international production systems (Borrus et al., 2000). For example, electronics TNCs headquartered in the United States typically pursue outsourcing strategies while maintaining tight equity control over their vertically specialized subsidiaries. Japanese TNCs in the same industry, by contrast, display a strong preference for integrated production, governed through a mixture of equity control and close non-equity linkages with key suppliers (although this is beginning to change). These different structural, sectoral and national characteristics are combined (as exemplified by the case studies provided below) in the context of corporate strategies of individual firms aiming at systemic *firm-specific* advantages.

The drivers and features of international production systems signal one point of particular interest to developing countries: Governments that seek export-oriented FDI need to go beyond trade and FDI policies and assess their locational advantages in the international production system context. More specifically:

> "the issue is no longer whether trade leads to FDI or FDI to trade; whether FDI substitutes for trade or trade substitutes for FDI; or whether they complement each other. Rather, it is: how do firms access resources – wherever they are located – in the interest of organizing production as profitably as possible for the national, regional or global markets they wish to serve? In other words, the issue becomes: where do firms locate their value-added activities? In these circumstances, the decision where to locate is a decision where to invest and from where to trade. And it becomes a FDI decision, if a foreign location is chosen. It follows that, increasingly, what matters are the factors that make particular locations advantageous for particular activities, for both, domestic *and* foreign investors" (*WIR96*, p. xxiv).

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Developing countries need to identify their locational strengths and weaknesses in relation to their competitors and in relation to the factors that influence the configuration of international production systems. Only then can they properly tailor policies to enhance their locational advantages. Moreover, in seeking to attract export-oriented TNC activities or induce existing affiliates (or local companies) to upgrade their niches within given international production systems, Governments need to discern where governance authority resides within various systems so that their efforts are targeted at the right decision-makers. Both these issues are taken up further in Part Three of *WIR02*.

B. Case studies

1. Control through equity relations in a technology-driven international production system: Intel

Semiconductors were the most dynamic products in world trade during the period 1985-2000, when their exports grew from $26 billion to $235 billion. The demand for semiconductors comes mainly from the IT industries (computers, telecommunications and consumer electronics). By 2000, they represented 5 per cent of world trade, up from 1.5 per cent in 1985, and they accounted for 20 per cent of the trade in high-technology non-resource-based manufactures, the most dynamic category of world trade.

In terms of ownership advantages, competition has been fierce in the semiconductor industry, and Intel, the market leader, has set the pace (table V.2). It adapted better to the evolution of the industry in which there was a long period of fast growth (1982-1995), followed by consolidation (1995-1998), followed by a short boom and then a sharp fall.[1]

Intel jumped from seventh to first rank by sales in the semiconductor industry between 1983 and 2001, and is today by far the largest chipmaker in the world. Its sales increased 42 times between 1983 and 2000 before declining in 2001 as the IT market fell. It accounts for about one-quarter of global sales in semiconductors, mostly to the computer industry. It also accounts for one quarter of the R&D undertaken by the industry, and has been the biggest investor during the past decade. Intel's capital expenses in 2001 were $7.3 billion. The company has developed significant technological and production advantages: it has been able to squeeze more transistors onto silicon wafers for computers than its competitors and it has developed larger silicon wafers, reducing fabrication costs by about one third.[2]

Intel exploited its manufacturing prowess by integrating its production system and establishing identical plants in numerous locations to obtain the optimal global configuration of its production facilities. This system allowed the company to locate particular activities in the sites most suited

Table V.2. The world's leading semiconductor manufacturers, 2001
(Billions of dollars)

Rank 2001	Rank 1983	Company (Home country/region)	Sales 1983	Sales 2000	Sales 2001
1	7	Intel (United States)	0.7	29.7	22.7
2	5	Toshiba (Japan)	0.9	11.0	7.2
3	3	NEC (Japan)	1.3	10.9	7.0
4	2	Texas Instruments (United States)	1.6	10.3	6.7
5	..	STMicroelectronics (EU)	..	7.8	6.3
6	..	Samsung Electronics (Republic of Korea)	..	10.6	5.1
7	1	Motorola (United States)	1.6	7.9	5.0
8	4	Hitachi (Japan)	1.0	7.4	4.7
9	..	Infineon (EU)	..	6.8	4.6
10	10	Philips (EU)	0.5	6.3	4.6
Total top 10			9.4	108.6	73.6
Semiconductor industry			17.4	204.4	139.0

Source: UNCTAD, based on IC Insights, cited by Semiconductor Electronics Resource Centre, www.dir-electronics.com and UNCTC, 1986.

for them. It kept the high-value elements of the semiconductor cost structure (wafer production and fabrication) predominantly in the United States and shifted the more labour-intensive assembly-and-testing activities to lower-cost sites (table V.3). Thus, Intel has kept its production process internalized. More specifically, it has 13 fabrication plants and 11 assembly-and-testing sites in 7 countries. About half of its 86,200 employees work in its Technical Manufacturing Group. It has expanded internationally with fabrication facilities in Israel (1985 and 1999) and Ireland[3] (1993 and 1998) and concentrated its labour-intensive operations in Malaysia (1988, 1994, 1996 and 1997),[4] the Philippines (1979, 1995, 1997-1998),[5] Barbados (1977, later closed), China (1997, 2001) and Costa Rica (1997 and 1999).[6] Today, about two-thirds of Intel's manufacturing workforce is in the United States, 11 per cent in Malaysia, 8 per cent in the Philippines, 4 per cent in Ireland, 3 per cent in Israel, 2 per cent in Costa Rica and 1 per cent in China. It is the leading national exporter from Ireland, the Philippines and Costa Rica, and ranks seventeenth among foreign exporters from China.

Many of Intel's competitors have reorganized their own international production systems, following Intel's lead and on the basis of the same overall intra-firm division of labour.[7] In the process, a number of firms have consolidated their activities. For example, Motorola has reduced the number of its plants from 29 to 14 since 1997, and Hitachi reduced its plants from 13 to 8, shifting production from Japan to China and Malaysia.

With regard to transnationalization, Intel's operations and its international production system are designed to distance itself from competitors by protecting its technological advantages inside subsidiaries strategically located in its home country, or in Ireland and Israel. In the case of assembly and testing facilities, it has expanded internationally to incorporate a few carefully selected sites in low-cost locations but always in fully-owned operations. It is an international production system that is hierarchical,

Table V.3. Intel's manufacturing sites, January 2002

Country	Facility	Function	Year built	Current process technology	Employees
United States	Facility 1	Wafer fabrication	1978, 1992, 1996, 1999, 2003[a]	0.13-, 0.25-, 0.35-micron	16 000
	Facility 2	Wafer fabrication	1980, 1993, 2002[a]	0.13- 0.18-, 0.25-, 0.35-micron	5 500
	Facility 3	Wafer fabrication	1988	0.13-, 0.18-micron	8 500
	Facility 4	Wafer fabrication	1994	0.28-, 0.35-, 0.50-micron	2 700
	Facility 5	Wafer fabrication, assembly and testing	1996, 1999, 2001	0.13-, 0.18-micron	10 000
	Facility 6	Systems manufacturing	1996	..	1 400
	Facility 7	Wafer fabrication	2001	0.18-micron	1 845
Ireland	Facility	Wafer fabrication	1993, 1998, 2004[a]	0.18-, 0.25-micron	3 400
Israel	Facility 1	Wafer fabrication	1985	0.35-, 0.50-, 0.75-, 1.0-micron	800
	Facility 2	Wafer fabrication	1999	0.18-micron	1 500
Malaysia	Facility 1	Board manufacturing, assembly and testing	1996, 1997	..	7 790
	Facility 2	Assembly and testing	1988, 1994, 1997	..	
Philippines	Facility 1	Assembly and testing	1997, 1998	..	5 984
	Facility 2	Assembly and testing	1979, 1995	..	
China	Facility	Assembly and testing	1997, 2001	..	1 227
Costa Rica	Facility	Assembly and testing	1997, 1999	..	1 845

Source: www.intel.com, January 2002.

[a] Estimated construction completion.

integrated (with associated intra-firm trade) and based on tightly controlled subsidiaries. The semiconductor industry is thus a good example of a global value chain driven by carefully protected technological advantages.

Locational advantages also play a role. As technology-intensive stages in the semiconductor production process can be separated from labour-intensive ones and the cost of transport is low relative to the value of the output, it is economical to pursue a global production strategy. In the case of Intel, the principal factors that the firm takes into account in establishing a new subsidiary for assembly and testing functions include the availability of a technical workforce, construction costs, the quality of infrastructure, logistics, business costs and supplier capabilities (www.intel.com/pressroom/kits.htm). Host country incentives can be important as well. The selection process for the plant that was located in

Costa Rica exemplifies the interplay of these factors.[8] Intel's strategy of locating labour-intensive activities in low-wage areas, mainly in Asia, and then moving to yet lower-wage locations, has also been utilized by many of its competitors. They too have moved the more labour-intensive stages of their production to developing countries, often the same ones as Intel, thereby creating a clustering effect. As semiconductors enjoy unencumbered access to most markets, market-access factors do not play a role in these locational decisions.

As a result, a handful of East and South-East Asian countries have registered high increases in their export-market shares in semiconductors, while some developed countries have experienced large declines (table V.4). During the period 1985-2000, a total of eight winners (mainly from Asia) improved their shares by almost 35 percentage points, while seven, mainly developed,

Table V.4. Winners and losers in semiconductor exports,[a] 1985-2000

(Per cent)

Economy	1985	2000	Market share increase, 1985-2000[c]	Top 10 TNCs present[b] in winner economies
Principal winners				
China	0.14	8.82	8.7	Intel, Toshiba, NEC, Texas Instruments, ST, Motorola, Hitachi, Infineon, Philips, Samsung
Taiwan Province of China	2.72	10.64	7.9	Texas Instruments, Hitachi, Infineon, Philips
Malaysia	0.36	7.81	7.5	Intel, Toshiba, NEC, Texas Instruments, ST, Motorola, Hitachi, Infineon Philips
Republic of Korea	0.76	4.01	3.2	Texas Instruments, Samsung
Philippines	0.23	3.07	2.8	Intel, Texas Instruments
Thailand	0.46	2.54	2.1	Toshiba, Philips
Costa Rica	-	1.41	1.4	Intel
Ireland	2.37	3.43	1.1	Intel, Motorola, NEC
Total	7.04	41.73	34.7	
Principal losers				
United States	29.97	15.40	-14.2	
Germany	8.76	3.39	-5.4	
France	6.52	1.71	-4.8	
Japan	13.83	10.27	-3.6	
Italy	3.28	1.14	-2.2	
United Kingdom	6.73	4.88	-1.8	
Hong Kong, China	3.92	2.11	-1.8	
Total	73.01	38.90	-33.7	

Source: UNCTAD, based on the United Nations' Comtrade database.

[a] SITC 7599: parts and accessories of data-processing equipment.
[b] As of January 2002. Developing economies with semiconductor affiliates not mentioned here: Singapore (NEC, Texas Instruments, ST, Hitachi, Infineon, Philips), Hong Kong, China (Motorola, Philips), Indonesia (NEC); Morocco and Malta (ST).
[c] The concept of "market share increase" is based in the *import* market shares as calculated by the CAN computer programme on international competitiveness of UN-ECLAC, which is based on the United Nations' Comtrade database. The data are classified at 3 or 4 digits of the Standard International Trade Classification (Rev.2). The period of analysis is 1985-2000, in which the value of individual years represents 3-year rolling averages (two-year average of the year 2000) to emphasize the structural aspects of change.

economies lost a similar percentage. In other words, a very high proportion of these trade gains and losses were accounted for by the relocation of the labour-intensive segments of semiconductor international production systems. Another factor was the arrival of newcomers in the industry from economies such as Taiwan Province of China and the Republic of Korea.

2. Control through non-equity relations in a marketing-driven international production system: Limited Brands

Clothing remains an important component of world trade, rising from 2.4 to 3.1 per cent of world imports (from $41 to $174 billion) during the period 1985-2000. It accounted for 20 per cent of low-technology non-resource-based manufactures in 2000 (up from 17 per cent). North America ($58 billion in 2000) and Western Europe ($72 billion) are the most important markets for garments.

Barriers to entry are low on the production side of garments, in comparison to complex technology-and-scale-intensive industries like electronics and automobiles. However, there are high entry barriers in marketing in the garment industry. Buyers therefore occupy an important place in global value chains and dominate the industry. There is an ample supply of capable garment makers, and it is relatively easy to create new ones by providing design inputs and some technical assistance. Thus, the fragmentation of the production process is very advanced.

In this situation, the key variable for the location of manufacturing plants is market access. United States rules favour clothing assembled offshore from United States inputs, and they give special market access to assemblers from Central America, the Caribbean and Africa (see chapter VII). Within NAFTA, Mexico profits from rules of origin that give it advantages over competitors, especially from Central America and the Caribbean, since its domestic inputs count as "NAFTA content" and those of its competitors do not. The European Union uses a similar mechanism (see chapter VII), also granting special access to a number of countries. Finally, the quotas of the Multifibre Arrangement have also strongly influenced locational decisions. All of these schemes and mechanisms – quotas, preferential market access and regional integration – result

in distorted trade flows. For that reason, no attempt is made here to match the corporate strategies of the leaders with trade data. This section simply presents one example of the kinds of networking relationships being established through non-equity forms, illustrating the earlier observation about the importance of such relationships for exports. Still, the trade data do capture the international and regional aspects of garments markets: China and several Asian countries compete in most major markets, while the North American and West European markets have regional suppliers, mainly as a result of trade restrictions (tables V.5 - V.7).

Table V.5. Winners and losers in North American garment[a] imports, 1985, 2000

(Percentage)

Economy	1985	2000	Market share increase 1985-2000
Principal winners			
Mexico	1.6	14.0	12.4
Honduras	0.2	4.0	3.9
China	8.3	11.2	2.9
Dominican Republic	1.4	4.0	2.6
El Salvador	0.1	2.6	2.5
Total	11.6	35.8	24.2
Principal losers			
Hong Kong, China	22.7	8.2	-14.5
Taiwan Province of China	15.5	3.3	-12.2
Republic of Korea	13.7	3.8	-9.9
Total	51.9	15.3	-36.5

Source: UNCTAD, based on the United Nations' Comtrade database.

[a] SITC 842: men's outwear non-knit; SITC 843: women's outwear non-knit; STIC 844: undergarments non-knit; SITC 845: outer garments knit non-elastic; SITC 846: undergarments knitted.

The characteristics of demand for garments in the United States, Europe and Japan differ greatly, and these differences have been important in the choice of supplier countries (Sturgeon, 2002). United States buyers prefer standardized products at low prices. Europeans prefer high quality products of greater diversity and are willing to pay higher prices. Japanese buyers prefer high quality finishing. In practice, this means that very few suppliers can meet the needs of all three major markets, and so tend to specialize in one or two.

Take the United States market. Competition increasingly takes place not so much at the level of firms as networks.

Table V.6. Winners and losers in West European garment[a] imports, 1985, 2000

(Percentage)

Economy	1985	2000	Market share increase 1985-2000
Principal winners			
China	1.7	9.4	7.7
Turkey	2.4	7.1	4.7
Bangladesh	0.1	3.2	3.1
Indonesia	0.3	2.4	2.1
Morocco	1.3	3.2	2.0
Romania	1.4	3.3	1.9
Tunisia	1.8	3.7	1.9
Poland	0.9	2.8	1.8
Total	9.9	35.0	25.1
Principal losers			
Italy	18.5	7.8	-10.6
Germany	10.1	5.9	-4.2
Hong Kong, China	9.7	6.3	-3.4
Republic of Korea	3.6	1.0	-2.5
Total	41.8	21.1	-20.7

Source: UNCTAD, based on the United Nations' Comtrade database.

a   SITC 842: men's outwear non-knit; SITC 843: women's outwear non-knit; STIC 844: undergarments non-knit; SITC 845: outer garments knit non-elastic; SITC 846: undergarments knitted.

Table V.7. Winners and losers in Japanese garment[a] imports, 1985, 2000

(Per cent)

Economy	1985	2000	Market share increase 1985-2000
Principal winners			
China	25.6	73.2	47.6
Viet Nam	0.0	3.1	3.0
Total	25.6	86.3	50.7
Principal losers			
Republic of Korea	34.2	4.9	-29.3
Taiwan Province of China	15.4	0.4	-15.1
Hong Kong, China	5.8	0.7	-5.1
Total	55.5	6.0	-49.5

Source: UNCTAD, based on the United Nations' Comtrade database.

a   SITC 842: men's outwear non-knit; SITC 843: women's outwear non-knit; STIC 844: undergarments non-knit; SITC 845: outer garments knit non-elastic; SITC 846: undergarments knitted.

General retailers like Wal-Mart, Sears Roebuck and J.C. Penney, as well as garment specialty retailers like Liz Claiborne, The Gap and Limited Brands, both design and market clothing but do not make the products they sell. These companies are controlling a growing share of the United States market: in 1977,

the top 50 apparel and accessory retailers held 28 per cent of the market and the top 5 held 9 per cent. By 1992, the share of the top 50 had risen to 53 per cent and that of the top 5 to 18 per cent (Abernathy et al., 1999, p. 76). Continued success for buyers in the garments industry depends, to a significant degree, on identifying and contracting the best supplier networks.

An example is Limited Brands. It is a leading specialty retailer of intimate and other apparel and non-apparel (i.e. beauty and personal care) products. Founded in the United States in 1963, its net sales doubled between 1990 and 1999, from $5 to $10 billion. The dynamism of Limited Brands suffered a bit of a setback thereafter (sales in 2001 were $9 billion), but it refocused on "fewer but better brands" and now seems set for a new expansionary phase (Limited Brands, 2001).

Limited Brands influences the global value chain in which it operates through marketing, which is based on its two principal advantages: retail sales outlets and brand management. In 2001 it had 4,614 stores in the United States. The company uses both in-house and external suppliers in what it calls its "global network of relationships, resources and support personnel" (http://www.thelimited.com). Its independent division, Mast Industries, is one of the world's largest contract manufacturers, importers and distributors of apparel (http://www.mastindustries.com). External suppliers include a host of firms. Li & Fung has been one of the most important ones (box V.1).

Mast Industries delivers over 200 million garments to Limited Brands per year. It also supplies other retailers. Mast is well positioned globally to supply products that enable its customers to establish and maintain their brand identity. It does so through a global network of 18 offices in 12 countries and 400 factories in 37 countries. The latter includes 53 joint ventures (42 in Asia, mainly Sri Lanka) and 600 individual associates (including 400 in Asia and 165 in North America). The key competitive advantage of Mast Industries is "to identify manufacturing partners in the right place at the right time" (http://www.mastindustries.com). Thus, Mast has a production migration strategy that constantly searches for production opportunities. This overarching concern to contain costs is tempered by additional factors, such as quality,

manufacturing flexibility, capacity and timely delivery. It coordinates its global network by way of the Mast Connection, which uses advanced networking technology and the Internet to create a reliable global network of Mast associates, manufacturers, customers and shippers.

There are also external "full-package providers". The "full package" involves independent intermediaries supplying products according to the buyer's design, assembled by the intermediaries' production network (in which the intermediaries themselves may have no equity interest). The product carries the name of the buyer and the

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Box V.1. Li & Fung: a full-package provider

Li & Fung Limited is an example of a worldwide trading company that manages a global logistics chain for its retailer clients and partners. It is a full-package provider that brokers high-volume garments and fashion accessories (Li & Fung Limited, 2001, p. 9). The firm is headquartered in Hong Kong, China, and is listed on its stock market. It has an annual turnover of about $4.2 billion, employing about 5,000 people worldwide. In 2001, 72 per cent of the turnover was in the garments segment; regionally, its orders came mainly from North America (75 per cent) and Europe (21 per cent) (Li & Fung Limited, 2001, p. 6).

The firm's specialty is supply-chain management within its global supply network. It does not own any production facilities, but manages the "full package": product development, product sourcing and product delivery, including quality control and on-time delivery.

The evolution of Li & Fung into a full-package supplier went through several stages. In the 1960s and 1970s, Li & Fung operated as a regional sourcing agent, with offices in Taiwan Province of China, the Republic of Korea and Singapore. Activities comprised "assortment packaging": assembling components for a product set from different locations.

In the second stage, during the late 1970s, the business became more sophisticated, functioning, in its own description, as a "manager and deliverer of manufacturing programmes" (http://www.lifung.com). Buyers would indicate the type of garment they were considering, and Li & Fung, as the agent, would prepare alternative designs. Once a design was agreed upon, the agent would source all components (from yarns and trims to packaging), identify a manufacturing site and arrange the logistics. "Front end" functions (design, engineering and production planning) and "back end" functions (quality control, logistics, testing) remained mostly in Hong Kong, China, while the actual manufacturing was commissioned from low-cost locations in one or more countries. During the 1970s and 1980s, manufacturing was located predominantly in China.

The third phase began in the late 1980s: Li & Fung took control of complete garments

programmes for a season for a particular buyer, including the proposing of items and batch mixes and delivery rhythms. The process has since deepened. The manufacturing part of the process has become highly complex and dispersed. Li & Fung "dissect the value chain" (Magretta, 1998). Manufacturing is farmed out to those locations that are the most cost-efficient, and the product comprises components produced in numerous locations. Out of 15 steps in the manufacturing value chain, Li & Fung claims to handle 10 (Magretta, 1998).

The firm had about 700 customers in 2000 – mainly large retailers in the United States and Europe – and operates through a network of 68 offices in 40 countries. Until the mid-1990s, buyers were mainly from the United States, such as Limited Brands. In 1995, Li & Fung bought Inchcape Buying Services, a British trader based in Hong Kong, China, broadening buyer connections into the EU market and providing itself with an established network of offices in Bangladesh, India, Pakistan and Sri Lanka. Li & Fung receives a commission from the retailer and "the higher value added lets us charge more for our services" (Magretta, 1998, p. 106). The firm has manufacturing contracts with 7,500 suppliers, of whom 2,000 are reportedly active at any given time. There are estimates that Li & Fung thus has indirect employment links with 1.5 million workers (Magretta, 1998, p. 109).

Li & Fung presides over a large network of contract suppliers in China and other Asian developing countries, notably Bangladesh, India, Pakistan and Sri Lanka, as well as in Egypt, Madagascar, Morocco and South Africa. The firm generally takes between 30 to 70 per cent of a factory's output – less would not give it the clout to secure orders or reserve production capacity for incoming orders, and more would make it over-dependent on the supplier (Magretta, 1998, p. 106). In sum, the company's transnationalization process is based not on the possession of domestic assets that can be exploited abroad (as was the case for many conventional TNCs), but on linkages, tapping into the resources of partners and sharing the risk with them.

Source: UNCTAD based on Li & Fung Limited, http://www.lifung.com/about/index.html; Mathews, 2001; Magretta, 1998; Gereffi, 2001.

intermediary has no influence over its distribution. East Asian firms were the first to become full-package suppliers to foreign buyers (Gereffi, 2001), drawing on their ability to coordinate complex production, trade and financial networks efficiently (box V.1).

One might say that there are two different worlds in the garments industry: an expanding world and a shrinking one. The first contains buyer-driven value chains in which brand owners (à la Limited Brands) can move the production systems of third parties based on their design and marketing competencies. Instead of establishing their own production facilities, they can contract them. This can involve the retailer overseeing some of the individual elements of the international subcontracting process such as sourcing inputs, assembly, quality control and delivery from distinct providers, as The Mast Industries division of Limited Brands does. Or it can involve the contracting of full-package providers that, on the basis of the design received, take it upon themselves to undertake the whole production process, as Li & Fung does. Both Mast and Li & Fung are skilled intermediaries that excel in organizing supplier networks. FDI is not necessarily involved in the generation of exports in this first world of garments.

The second world of the garments industry contains brand-name manufacturers that maintain FDI-based international production systems. These manufacturers have been forced offshore to low-wage sites by heightened competition, and rely on preferential market-access schemes that give them an advantage until the quota system of the Multifibre Arrangement is dismantled. The Sara Lee companies involved in garment production are typical examples. They use foreign affiliates based in three or four different production sites in one region (the Caribbean basin, for example) that produce similar products. That gives them the flexibility to adapt to the changing competitive situation of each site by adding assembly lines in the more convenient ones and dropping them in the rest, without the need to close down any site. These FDI-based production systems are, however, becoming less representative of the industry as a whole. This kind of strategy appears to rely on production as well as marketing advantages to drive the value chain, but buyer-driven chains dominate international trade in the industry.

3. Control through equity and non-equity relations in a production-driven international production system: Toyota

The automobile industry maintained its large share of world trade at 8.8 per cent and grew from $149 billion to $486 billion between 1985 and 2000. This industry accounts for about 30 per cent of medium-technology, non-resource-based manufactures. The existence of excess capacity in the order of 25 per cent in North America and 30 per cent in Western Europe[9] has not stopped auto TNCs from continuing to expand production capacity both at home and abroad (PricewaterhouseCoopers, 2000). Despite surface calm, a harsh industry-wide restructuring has taken place. Strong competitors have swallowed weak ones, and new plants and equipment have replaced old ones. Both factors have influenced the international expansion of the principal automobile TNCs.

Unlike electronics, automobile production systems tend to be national or regional, rather than global. The high weight-to-price ratio of motor vehicles and strict government policies to protect domestic markets and support local production slow the pace of globalization in this industry. For example, European manufacturers still produce almost three-quarters of their passenger cars in the European Union, United States manufacturers half their passenger cars in North America, and Japanese manufacturers two-thirds of their passenger cars in Japan. In the Republic of Korea – a new entrant with a strong domestic industry – national manufacturers supplied almost 90 per cent of the total until the Asian financial crisis, after which some of those companies sold their assets to foreign TNCs. In other words, home markets are still central to automobile manufacturers, even though many producers have large stakes overseas. In most developing countries with substantial automobile industries, however, TNCs are dominant.

A few firms dominate the world motor industry. In 2000, the top 10 accounted for three-quarters of global production (table V.8). Of these, only one company, Ford, had "transnationalized" a good part of its production (defined as over 40 per cent of

Table V.8. The top 10 automobile manufacturers, ranked by vehicle production, 2000

Rank	Company	Home country	1980 units produced (Millions)	1994 units produced (Millions)	2000 units produced (Millions)	1980 foreign production (Per cent)	2000 foreign production (Per cent)
1	General Motors	United States	6.7	8.0	8.1	29.2	48.1
2	Ford	United States	4.2	6.5	7.3	54.9	48.1
3	Toyota	Japan	3.8	5.2	6.0	..	30.3
4	Volkswagen	Germany	2.5	3.2	5.1	35.5	60.7
5	DaimlerChrysler	Germany	1.7[a]	3.7[b]	4.7	<20	75.5
6	PSA	France	2.0	2.0	2.9	18.4	40.3
7	Fiat	Italy	1.6	2.4	2.6	14.0	40.1
8	Nissan	Japan	3.1	2.8	2.6	..	48.6
9	Renault	France	2.1	1.9	2.5	19.8	42.4
10	Honda	Japan	1.0	1.7	2.5	..	51.1
Total top 10			28.7	37.4	44.3		
Total world			34.9	49.7	58.4		

Source: UNCTAD, based on UNCTC, 1983; OECD, 1996; Organisation Internationale des Constructeurs d'Automobiles (www.oica.net/htdocs/main.htm).

[a]   Sum of Chrysler (1.0 million) and Daimler Benz (0.7 million).
[b]   Sum of Chrysler (2.8 million) and Daimler Benz (0.9 million).

production outside the home country) in 1980. By 2000, all but Toyota had passed that threshold. Yet it was Toyota that had stimulated change in the industry, including the shift of production facilities to developing countries and economies in transition.

Toyota used to supply North America and Europe mainly by way of exports from Japan. It moved abroad only when access to those markets became restricted because of voluntary export restraints and quotas. In order to establish itself successfully in the highly competitive United States market, it relied on a number of strengths intrinsic to the Toyota Production System:

- Integrated single-piece production flow with low inventories.
- Small batches made just in time.
- Defects prevented rather than rectified.
- Production "pulled" by customer demand rather than "pushed" to suit machine loading. Teamwork with flexible multi-skilled operators.
- Production line jigs with identical specifications worldwide to add/switch models easily.
- Active involvement in root-cause diagnosis to eliminate all non-value-adding steps, interruptions and variability.
- Closer integration of the value chain, from raw materials to finished product, through partnerships with suppliers and dealers.

These strengths enabled Toyota (and other Japanese manufacturers that acquired them) to make major inroads in world automobile markets, first through exports and later through FDI (Mortimore, 1997). In 1990, Toyota's production was heavily concentrated in Japan, accounting for 86 per cent of its sales. By 2000, foreign production accounted for 30 per cent. This new capacity is critical to Toyota's plan to raise its global market share by half (from 10 to 15 per cent). At the end of 2001, Toyota had 12 plants in Japan and 43 plants in 26 other countries (see annex table A.V.1 for the main ones). Its international production system combines a set of modern, efficient plants with a set of older, less efficient ones supplying domestic markets in such developing economies as Argentina, Brazil, India, Indonesia, Malaysia, the Philippines, South Africa, Taiwan Province of China, Venezuela and Viet Nam. The small production scale and export volumes of the latter mean that they do not play a significant role in the global expansion of the Toyota Production System.

Toyota's success as a major automobile TNC stems primarily from its lean production system, its quality circles, its tiered suppliers and timely procurement. Although it was a latecomer in establishing its corporate system, its superiority allowed it to establish its regional networks in the heart of the home markets of its principal competitors,

driving them to close down less efficient plants and seek out lower-cost production sites. There are, however, indications that Toyota too will be expanding operations in lower-cost sites – partly as a result of the successful copying of Toyota's production innovations by its competitors.

In the modern and most competitive part of its international production system, Toyota maintains its ownership advantage in fully-owned assembly plants, with a few exceptions. Parts are, to a large degree, externalized. Locational criteria relate mainly to market size in the case of the principal markets, and to market access in the older, less competitive parts of the Toyota international production system. Recently, Toyota has indicated that it will extend its international production system around core regional markets to lower-cost sites, like Mexico for North America, and Turkey and the Czech Republic (box III.10) for Western Europe. Production is scheduled to start in 2005.

So far, the developing country that has gained the most from developments in the industry is Mexico, which increased its market share by 12 percentage points between 1985 and 2000 (table V.9). Volkswagen is one example of how one company reoriented its production in that country (box V.2), Ford is another (box V.3).

4. Control in transition in a technology-driven international production system: Ericsson

Telecom equipment was among the most dynamic exports during the period 1985-2000. By 2000, it represented 3.3 per cent of world trade (up from 1.3 per cent in 1985) and accounted for 14.3 per cent of high-technology, non-resource-based trade. In 2000, the total value of telecom equipment exports exceeded $173 billion, with the top 10 exporting countries accounting for 73 per cent of the total.

After the boom of the late 1990s, the industry has faced a sharp downturn, partly because of excessive spending by telecom operators on licences to operate third-generation mobile telephony. This has triggered a dramatic restructuring among the leading TNCs, including massive job cuts – at least 500,000 worldwide if service providers are included (www.FT.com.2 May 2002). Over-capacity is driving manufacturers to cut costs and make better use of existing facilities. At the same time, rapid technological change – including the development of new standards for mobile telephony and closer integration of the telecom, consumer electronics and media industries – is leading to shorter product cycles and forcing companies to invest more in R&D and innovative solutions, precisely at a time when their cash flow

Table V.9. Winners and losers in the automobile industry[a] exports to the North American market, 1985, 2000

(Per cent)

Economy	1985	2000	Market share increase, 1985-2000	Top 10 TNC present[b]
Principal winners				
Mexico	0.4	12.2	11.8	GM, Ford, DaimlerChrysler, Volkswagen, Nissan
Canada	23.7	29.0	5.3	GM, Ford, DaimlerChrysler, Toyota, Honda
Republic of Korea	0.6	3.7	3.0	
Total	24.7	44.9	20.1	
Principal losers				
Japan	41.3	28.1	-13.2	Toyota, Nissan, Honda
United States	12.0	7.6	-4.4	GM, Ford, DaimlerChrysler, Renault, Toyota, Nissan, Honda
Germany	15.3	12.8	-2.5	GM, Ford, DaimlerChrysler, Volkswagen, Fiat
Total	68.7	48.5	-20.2	

Source: UNCTAD, based on the United Nations' Comtrade database.

[a] SITC 7810: passenger motor cars.
[b] For developing countries with automotive affiliates not mentioned here, see annex table A.V.2.

Box V.2. Volkswagen's strategy in Mexico

In 1967, the first Beetle left the assembly lines of Volkswagen de México in Puebla. During the following 20 years, Volkswagen de México focused its local production almost exclusively on the domestic market, achieving only small-scale exports of the classic Beetle model. In 1977, production of the first-generation Golf began, followed soon after by the Jetta. The operation was typical of the import-substituting investments made in protected markets at the time, characteristically inefficient by international standards.

In 1989, Volkswagen took a *strategic decision* to consolidate its North American operations. The two North American plants, in Puebla, Mexico, and in Pennsylvania, United States, were producing at half their capacity due to the weakness of both markets. Both plants were producing the same Golf and Jetta models. Mexico was selected as the sole production centre for Volkswagen in the region[a] and suitably modernized and upgraded as a result. Of the total production of 380,000 vehicles in 2001, 300,000 were exported, four-fifths of these to North America. These exports from Puebla accounted for 60 per cent of the Volkswagen sales in North America, with the remaining being imported from Germany. For the Volkswagen Group, the Puebla operation is not only the main product source for its most important growth market, which is the United States, but, also a supplier of engines and other components to most Volkswagen factories in the world. The Mexican operations of Volkswagen have been transformed into a world-class manufacturing platform.

As NAFTA was implemented in 1994, Volkswagen decided to upgrade its Mexican facilities further. It decided to start production of the prototype called Concept 1, reminiscent of the traditional Beetle silhouette, but on a modern technology platform. A production site that guaranteed both highest quality and competitive costs had to be found. After reviewing several alternatives for the production of this car (which had meanwhile been baptized the "New Beetle"), Volkswagen finally decided in 1995 to allocate it to the plant in Puebla, Mexico.[b] The decision to locate the New Beetle production in Mexico meant investing several hundred million dollars, increasing capacity in the Volkswagen plant in Puebla and creating 1,500 new jobs, bringing more than 20 auto part suppliers to Mexico and building new production facilities.

The New Beetle project is the most prominent example of how globalization is determining the strategy of the automotive industry for Mexico. A new trade agreement with Europe – eventually signed in December 2000 – was already on the agenda, and the Government decided to open its borders to the import of assembled cars in advance of the actual negotiations. Strategically, this allowed Mexican automobile assemblers to reduce the production complexity of their Mexican plants to a few product lines, thus increasing scale effects for improved cost competitiveness. The low volumes of different models to supply the Mexican domestic market could now be sourced from other assembly plants all over the world, not only from the NAFTA region.

In sum, faced with a decision on how to organize its production for the North American market, Volkswagen opted to close its United States operation in favour of its Mexican one. That decision was ratified when Volkswagen assigned to its Mexican operations the worldwide production of the new Beetle model. Volkswagen has been able to improve its competitive situation in the North American market based solely on its upgraded and modernized plants in Mexico. Its subsidiary has become the third biggest manufacturing operation among foreign firms in Latin America and the sixth biggest export operation of all firms in the region. At the same time, Volkswagen's success provided another strong boost to the international competitiveness of the Mexican automobile industry.

Source: UNCTAD, based on material provided by the Department of Communications, Government Affairs and Corporate Strategy of Volkswagen de México, February, 2002.

[a]   Given comparable quality levels, arguments in favour of the Mexican plant were lower production costs, a broad supplier base in Mexico and the fact that closing the Mexican plant would have meant abandoning the Mexican market, while the United States market could still be supplied from Mexico after the closing of the Pennsylvania plant.

[b]   The main reasons for this decision were the excellent quality levels achieved in the Puebla plant after six years of export experience to the United States; the very competitive cost levels both of the plant itself and of the Mexican supplier base; and NAFTA providing a clear long-term framework with regard to both market access and the gradual elimination of performance requirements.

Box V.3. Ford's strategy in Mexico

Ford was one of the most globalized automobile companies in the early 1990s. It invested heavily in foreign markets and lower-cost production sites to rectify its loss of market share in the United States. In 1980, over half of Ford's production capacity was located outside the United States, mainly in Europe. It then sought to compete better in the North American market by producing in Mexico, where it made sizeable investments in assembly operations, making use of the United States production-sharing market-access mechanism and the Mexican *maquiladora* export scheme (see chapter VII). Beginning in 1994, Ford's operations there benefited from the NAFTA rules of origin.

The building of Ford's new production capacity in Mexico resulted in dramatic changes in the quality and type of models produced in Mexico. Prior to 1987, its products were sold only in the Mexican market. There were a great many models, and production rarely exceeded 20,000 units per year. In 1987, Ford began to export two models from its new plant. By 2000, the company was producing 193,204 vehicles and exporting 181,099 of them. Ford's subsidiaries in Mexico became the third biggest manufacturing operation among foreign firms in Latin America and the eighth biggest export operation of all firms in the region.

In short, Ford's response to the loss of market share in the United States to Japanese firms was to integrate Mexico into its international production system and to focus its operations there on two compact-sized vehicles and one engine with state-of-the-art technology, both manufactured for export. It was helped in this by the United States production-sharing mechanism and the NAFTA rules of origin.

Source: UNCTAD, based on ECLAC, 1998; Mortimore, 1998b; Shaiken and Herzenberg, 1987; Carrillo, 1995; and Shaiken, 1995.

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long-term growth of the companies is involved, the immediate threat is to survival. That means that a good part of their energy is directed at the need to improve efficiency.

The market for telecom equipment is dominated by a small number of large TNCs (table V.10) with rather similar ownership-specific advantages. (Cisco Systems, a router specialist, is the principal exception.) Eight companies in 2000 accounted for about 54 per cent of worldwide sales of telecom equipment ($381 billion).[10] For the most part, they drive their value chains through technological advantages in the sense that new technologies have led to a surge in the use of mobile phones and the Internet, and this has resulted in increased demand for the installation and upgrading of modern telecom infrastructure. Of significance for the configuration of international production systems in this industry were differing standards, the timing of the shift to mobile phones, and the timing of the privatization of incumbent service providers in many countries, where national or regional priorities sometimes came to the fore.

In response to the rapid market growth of the late 1990s, most equipment vendors expanded their international production systems and now have to adapt to the crisis in the industry. The situation of Ericsson exemplifies this in many ways.

During the past decade, Ericsson,[11] the world's largest supplier of telecom equipment, reduced the number of its production plants from about 70 to less than 10 worldwide and outsourcing production to contract manufacturers. Ericsson has maintained two kinds of foreign affiliates: plants needed for the development and manufacturing of new products whose production is not standardized enough to

Table V.10. The top telecom equipment manufacturers, 2000

(Billions of dollars)

Rank	Company	Home country	Sales
1	Ericsson	Sweden	31.3
2	Nortel Networks	Canada	30.3
3	Nokia	Finland	27.2
4	Lucent Technologies	United States	25.8
5	Cisco Systems	United States	23.9
6	Siemens	Germany	22.8
7	Motorola	United States	22.8
8	Alcatel	France	21.6

Source: Gartner Dataquest, www.cellular.co.za/stats/top_telecoms_infrastructrue_vendors_2000.htm.

motivate a shift to low-wage countries; and the most cost-efficient plants for the more standardized products. The former produce non-standardized products and need to be close to the design and development units that can remove "bugs". The latter engage in high-volume manufacturing concentrated in a few low-cost sites like China, Poland and Estonia. In the case of China, Ericsson expects exports to grow significantly in the coming years. Operations in other parts of Asia are likely to move there. India, Indonesia and the Russian Federation may be candidates for future production plants. For site selection, Ericsson takes into account the following host-country factors: market size, level of bureaucracy, quality of infrastructure (including customs clearance procedures, the tax system, EPZs), trade policies affecting access to international markets, level of political risk, production costs (including labour costs), and the availability of contractors and suppliers. Ericsson protects its core technological advantages through its fully-controlled subsidiaries. In choosing locations for its subsidiaries for equipment manufacture, it focuses on efficiency factors plus domestic market demand, the latter being particularly relevant to the telecom industry.

The role of outsourcing has grown dramatically. Much of the none-core production has been externalized to contract electronic manufacturers for cost-sharing reasons. The firm is disposing of many plants to contract manufacturers such as Flextronics (see below) and Solectron, which are willing to purchase them in order to strengthen their strategic relationships with Ericsson. Sourced components are aggregated at the highest possible assembly and testing levels, so that a smaller number of strategic partners or first-tier suppliers are required. In January 2001, Ericsson transferred its complete supply chain for mobile phones to the contract electronics manufacturer Flextronics to improve economies of scale and volume production flexibility, and to reduce capital exposure as well as risk. Flextronics took over all related Ericsson facilities in Brazil, Malaysia, Sweden, the United Kingdom and parts of Ericsson's plant in Lynchburg, Virginia, in the United States. Ericsson now focuses on other parts of the telecom equipment value chain, such as design, R&D, product development, and sales and marketing.[12]

Ericsson's competitors have been under similar pressures to restructure and adjust their international production systems. An example is Nokia. It is the world's leading mobile phone maker, with a share of 35 per cent of the worldwide market of about 400 million units in 2001.[13] The company has production facilities in Finland (the home country) and 10 other countries. Telecom infrastructure is produced in China, Finland, Malaysia and the United Kingdom; mobile phone handsets are made in Brazil, China, Finland, Germany, Hungary, Mexico, the Republic of Korea and the United States. In the case of mobile phones, high-volume production of key inputs (engines) is concentrated in selected production units, while all factories are involved in final assembly. This type of operation requires the ability to adapt quickly to shifting tastes and a very reliable and flexible material-supply system.[14] Due to the need for high-volume production, Nokia only adds a new plant if it is clear that there is a market for many millions of units per year from that plant.[15]

An analysis of the production systems of the other main actors in the telecom equipment industry reveals many similarities with those of Ericsson and Nokia. Outside the EU and the United States, most equipment makers have set up production plants in Brazil and China. Other countries that have attracted telecom manufacturing include some in Central and Eastern Europe (e.g. Estonia, Hungary and Poland), in South-East Asia (Malaysia, Singapore and Thailand), East Asia (Republic of Korea) and Mexico. Siemens has the widest geographical spread of plants, with a presence also in India, Romania, the Russian Federation, Switzerland, Turkey and Ukraine.

Most of the key players have streamlined and outsourced considerable parts of their production in reaction to the industry crisis and the corresponding systemic efficiency requirements. Cisco Systems, for example, outsources almost all manufacturing to contract manufacturers around the globe. Nortel Networks reduced its overall workforce in 2001 from 93,000 to 48,000, mainly by divesting its non-core activities. Manufacturing and repair operations in Europe, North America and Asia were outsourced to the contract electronics manufacturer, Solectron. Motorola announced, in June 2000, a major deal under

which Flextronics was to take over a significant part of Motorola's mobile phone production. Lucent Technologies unveiled a plan in April 2000 to increase the share of manufacturing by contract partners from 20 per cent to 60 per cent over 18 to 24 months.[16] Lucent has transferred two manufacturing plants in the United States to Celestica.[17] Through these and other measures, Lucent cut its workforce by almost 45,000 in 2001. In China, on the other hand, Lucent announced, at the end of 2001, that it would expand its manufacturing base in Shandong Province.[18]

This analysis suggests the following:

- Most telecom companies are relocating high-volume manufacturing activities from high-cost to low-cost locations (particularly in a small number of developing countries and economies in transition).
- Throughout the industry, there is a growing focus on core competencies and a greater reliance on contract manufacturers for more standardized and less sophisticated products.
- The downsizing of high-cost production sites has not affected the design and R&D activities in these sites.

Thus, telecom equipment TNCs drive their value chains by way of their technological advantages in core products and through international production systems based on foreign affiliates for the more standardized and less technologically sophisticated items, and they rely on others, increasing in this manner their production efficiency. The ownership advantages of their advanced technologies are protected in a similar fashion as Intel's in the semiconductor industry, by internalizing them. Ericsson's principal advantages are in equipment for ground stations (i.e. for transmission and reception). In its dealings with telecom operators, the company prefers to operate through its international production systems.

Facing that competitive situation in mobile phones, Ericsson outsources much of its previous in-house production in order to reduce costs. It should be mentioned that, with regard to locational advantages (as well as the typical efficiency-seeking considerations), TNCs in telecom equipment prefer that production locations include a strong potential for domestic market growth as well as a relatively well-developed supply infrastructure.

The geographical shift in the exports of telecom equipment has been dramatic (table V.11). Over the period 1985-2000, five countries had market share gains corresponding to almost 30 percentage points in total, with the Republic of Korea, Mexico, China, Sweden and Finland reporting the largest increases. Ericsson and Nokia are behind many of these changes, either directly or via the manufacturers they contract.

Table V.11. Winners and losers in telecommunications equipment[a] exports, 1985, 2000
(Per cent)

Economy	1985	2000	Market share increase, 1985, 2000	Top 8 TNCs present[b]
Principal winners				
Republic of Korea	3.5	11.2	7.8	Nokia
Mexico	1.0	7.4	6.4	Nortel, Nokia, Motorola
China	0.04	5.7	5.7	Ericsson, Nokia, Siemens, Motorola
Sweden	2.5	8.1	5.6	Ericsson
Finland	2.0	7.2	5.2	Nokia
Total	9.1	39.7	30.6	
Principal losers				
Japan	29.1	4.6	-24.5	
United States	23.5	10.9	-12.7	
Total	52.6	15.4	-37.2	

Source: UNCTAD, based on the United Nations' Comtrade database.

[a] SITC 7643: television, radio and related transmitters and receivers.
[b] As of January 2002. Developing economies with telecom equipment affiliates not mentioned here include: Brazil (Ericsson, Nortel, Nokia, Siemens, Motorola), Singapore (Motorola), Malaysia (Motorola), Thailand (Siemens), India (Siemens) and Egypt (Siemens).

The case of the technological leadership of Ericsson in the telecom equipment value chain demonstrates some of the principal features of international production systems in this industry: a technological leader facing restructuring pressures during a harsh industry-wide recession combines with a fast-growing and efficient production specialist (Flextronics – box V.4) to exploit the competitive advantages of both. Ericsson and many of its principal competitors are focused more on restructuring than on the expansion of their in-house production systems. They become, therefore, more selective about where they locate manufacturing operations, expanding only in countries like China that offer both efficiency-enhancing possibilities and strong domestic demand. Nonetheless,

the stronger expansion of international production systems within this value chain currently comes from contract manufacturers rather than the technological drivers.

5. Outsourcing becomes more generalized: the rise of contract manufacturers

These case studies have served to demonstrate the diversity of international production systems and suggest a trend towards less hierarchical international production systems with more non-equity elements. While non-equity forms linked to supplier networks have been around in the garment and electronics industries for a while, other new forms are rapidly appearing. Especially impressive are contract manufacturers that actually establish their own international production systems through which they serve their customers (typically other TNCs). In consequence, their presence has an immediate impact on trade.

The growth of contract manufacturing can be exemplified by the electronics segment of this market. It is expanding not only in North America and Europe, but also in Asia. Between 1998 and 2002, the global market for contract manufacturers in electronics had been expected to grow by 140 per cent, from $58 billion to $139 billion. Some estimates suggest that the share of the total market for electronics equipment controlled by contract manufacturers will increase from 8 per cent in 1999 to 18 per cent in 2004 (www.solectron.com). The largest four contract manufacturers each had revenues of over $10 billion in 2002 (table V.12). Outside the EU and the United States, the bulk of their facilities are located in Brazil, China, Hungary,

Table V.12. The five largest contract electronics manufacturers, 1995 and 2002
(Billions of dollars)

Company	Headquarters	Revenue	
		1995	2002[a]
Solectron	United States	1.7	16.5
Flextronics International	Singapore	0.4	13.2
SCI Systems/Sanmina	United States	3.5	12.1
Celestica	Canada	0.6	11.3
Jabil Circuit	United States	3.6	4.9

Source: UNCTAD, based on Sturgeon, 2002, p. 14.

[a]   Estimated.

Mexico and Malaysia, followed by Singapore and Thailand and, recently, Japan (chapter III).

Contract manufacturers offer many advantages. They achieve greater efficiency through higher capacity use because they can simultaneously assemble or manufacture products for several original equipment manufacturers using the same plant. By building in-house capabilities, they are able to develop new process technologies and sometimes even help their principals with product innovation. As they evolve, they undertake a host of manufacturing-related functions such as logistics and procurement. They go global, both to take advantage of low-cost locations and to support clients in all their major production sites around the world, introducing new products and providing aftersales repair services centres.

Important bonuses for the countries that attract leading contract manufacturers include the increased scope advantages that can accompany such an investment; clustering effects and the associated longer-term upgrading of economic activities; and, of course, exports. For example, Flextronics has become the sixth largest exporter in Hungary and one of the top 15 TNC exporters in China. The effects for host countries may become even more important if the process of outsourcing leads to a concentration of production and export activities in a small number of clusters, especially industrial parks; the greater the numbers of plants and the more numerous the local linkages with suppliers, the less likely will TNCs be to move to other locations (box V.4).

C.   Conclusions

The increasing intensity of competition in all industries, and especially export-oriented industries means that leading companies are continually challenged by competitors and newcomers. That competition in itself provokes strategic reactions. TNC responses to this competitive pressure vary according to their competitive advantages at different stages of the global value chain. In the high-technology sector, competitive advantage lies mainly in technological capacity and speed of innovation. In the medium-technology sector (characterized by mature technologies), firms tend to focus more on efficiency through economies of scale. In the low-technology sector (where

Box V.4. Flextronics: specializing in the manufacture of others' products

A closer look at some aspects of the strategy of one of the fastest growing companies in electronic manufacturing services, Flextronics, provides a better understanding of what drives the transnationalization strategies of contract manufacturers. With corporate headquarters in Singapore, Flextronics grew from $448 million in revenues in 1995 to about $13 billion in 2002. A significant share of Flextronics' production is in low-cost economies; in eight locations in five countries (i.e. Brazil, China, Hungary, Mexico and Poland), Flextronics has developed what it calls integrated "Industrial Parks" (box table V.4.1). These help the firm to overcome infrastructure bottlenecks as they are large enough to attract suppliers to set up shop close to them. Each Flextronics' Industrial Park provides the necessary capabilities for the company to undertake high-volume production and provide cost-effective delivery of finished products within a day or two to the product owner's end-users, greatly reducing the freight costs of incoming components and outgoing products.

The most sophisticated operations, including the manufacture of routers and wireless base stations, are performed in places like Silicon Valley (United States) and Sweden, where the right mix of skilled labour is available. The most labour-intensive operations are in Doumen, China, where Flextronics makes, among other things, PC parts, mouse assemblies and mobile phones.[a] In Europe, the company has expanded rapidly into Central and Eastern Europe.

In addition, Flextronics also has regional manufacturing operations in multiple locations within Brazil, Europe, India, Israel, Malaysia and North America that complement its Industrial Parks. In contrast to the latter, which were typically set up as greenfield investments, most of the regional manufacturing operations are acquisitions of existing plants previously controlled by Flextronics' key customers or competitors, and often lack the efficiency-seeking characteristics of its Industrial Parks. Flextronics cements its strategic relationships with the former owners in this manner, then endeavouring to improve efficiency in those plants.

Flextronics, like most of the more sophisticated contract electronics manufacturers, also provides such services as product introduction centres and design and engineering centres to its strategic partners and buyers. This demonstrates how the boundaries between contractee and contractor blur over time as strategic partners reassign tasks along the global value chain.

When investing in the expansion of its international production system, Flextronics expects host countries to offer an environment conducive to manufacturing for the world market. It takes into consideration factors such as the productivity of the workforce, the capabilities of domestic suppliers, the quality of public utilities and infrastructure, access to inexpensive and easily accessible land, investment incentives, labour market rules, customs clearance procedures and numerous quality-of-life aspects (Pfaffstaller, 2001).

Since Flextronics specializes in the manufacture of other firms' products, the value chain is driven by the owners of the products, *not* by the contract manufacturer. However, contract manufacturers are obliged to accompany their clients in different markets and continually improve their process technology and production efficiency. For both reasons, contract manufacturers must establish suitable inter-national production systems of their own, and have consequently become leading investors with a critical influence on the export-competitiveness of host countries.

Box table V.4.1. Flextronics' selected global facilities, 2002

Location	Industrial Park	Regional manufacturing operation	Design and engineering centre
North America	..	6	9
Western Europe	..	18	14
Other developed countries	..	1	2
Latin America	2	4	..
East and South-East Asia	2	9	2
Central and Eastern Europe	4	2	2
Total	8	40	29

Source: http://www.flextronics.com/Globalman.

Source: UNCTAD, based on Pfaffstaller, 2001 and other materials.

[a] *Time*, 5 August 2001.

barriers to entry are low), cost cutting and marketing are the most critical. However, despite these general tendencies, it should be noted that firms in the same sector can react in quite different ways to similar stimuli. In the telecom industry, Nokia focuses more on in-house production of mobile phones, while Ericsson has completely outsourced it.

Most of the industry leaders reviewed above are keeping their core competitive advantages in-house in their home countries, either in R&D and design (technology development), or production processes, or sales outlets and brand management. Non-core functions, such as the labour-intensive parts of the production process, the assembly of less sophisticated products, or the logistical organization of product distribution are outsourced to low-cost sites. The contract manufacturing phenomenon epitomizes these outsourcing trends as the complete production process is outsourced. It increases the scale and importance of suppliers' operations, as global value chains are more and more finely sliced into specialized functional and geographical elements.

The splitting of the global value chain and the multiplication of supplier networks open up new opportunities for developing countries and economies in transition to participate in international production systems. Indeed, TNCs play a critical role in many manufactured exports. While retaining their core competencies, TNCs are setting up international production systems on the basis of corporate strategies that seek to obtain the optimal configuration of their production process by spreading production to locations that offer significant advantages in production costs and access to third markets. Thus, labour-intensive activities are moved to sites with cheap but efficient labour. The slicing of the value chain also means that new opportunities in the export of services open up to countries that can provide these services at low cost.

However, global suppliers must increasingly provide independent process development capabilities and the ability to perform a wide range of value-added functions associated with the manufacturing process, including help with product and component design, component sourcing, inventory management, testing, packaging and outbound logistics. The increasing demands put on key suppliers raise the barriers to market entry for the smaller and younger suppliers from developing countries and economies in transition.

The spreading of international production systems, through either FDI or non-equity supplier forms, and – equally important – the upgrading of activities of foreign affiliates in specific locations along the value chain, depends not only on the strategies of firms but also on the policies of host countries. The latter can play a significant role in the configuration of international production systems if their governments have a clear understanding of how they "fit in" with the corporate strategies that determine the nature and location of international production systems.

The next chapter looks at global competitiveness patterns.

Notes

[1] During the first period, Japanese TNCs mounted a serious challenge to United States producers, winning significant market share (from 32.5 per cent to 51.2 per cent during 1982-1988), then falling back and reaching a low of 26.4 per cent in 1998. The main United States transnational producers (Motorola, Texas Instruments, National Semiconductor, Intel and AMD) collectively reached bottom in 1989 (at 37.3 per cent) before making a strong comeback (peaking with about 50 per cent of the global semiconductor market share in the late 1990s). While United States and Japanese leaders were fighting for market shares, new producers were making inroads, more than doubling their market shares, from 9 per cent to about 20 per cent over the period (based on data from the Semiconductor Industry Association).

[2] On Intel's lead in flash memory design technology, lithography and capacity, see http://www.intel.com/intel/finance/presentations/pdf_files/nichols.pdf.

[3] By end 2000, Intel's investment in Ireland surpassed $3 billion. A new $2 billion wafer fabrication unit was under construction (www.intel.com/intel/community/ireland/aboutsite.htm).

[4] Intel's investment in Malaysia totalled $1.9 billion in 2000 (www.intel.com/intel/community/malaysia/aboutsite.htm).

[5] Intel's investment in the Philippines surpassed $1 billion by 2000 (www.intel.com/intel/community/philippines/aboutsite.htm).

[6] Intel's investment in Costa Rica was about $450 million (www.intel.com/costarica.htm).

[7] AMD is Intel's most direct competitor; however, it is not in the list of the top ten semiconductor makers.

8 See Spar, 1998; Rodriguez-Clare, 2001; Shiels, 2000; Egloff, 2001b.

9 See "Car manufacturing: incredibly shrinking plants", *The Economist*, 11 April 2002.

10 See http://www3.gartner.com/5_about/ press_releases/2002_02/pr20020204b.jsp.

11 This section is based on direct interviews with Ericsson executives.

12 In 2001, partly in response to increased competition, a deal was concluded between Sony Corporation and Ericsson to merge their mobile phone businesses worldwide, relying mainly on contract manufacturers for assembly.

13 See www3.gartner.com/5_about/press_releases/ 2002_03/pr20020311a.jsp.

14 For example, Nokia's production of about 140 million mobile phones in 2001 implies the handling of several million components every hour, making the efficiency of the overall production network a key competitive factor.

15 For Nokia, every factory needs to be designed to serve a certain well-defined market and to be adapted accordingly, depending on whether it will produce engines or assemble mobile handsets.

16 http://www.vnunet.com/News/602409.

17 http://www.lucent.com/press/0901/010904.coa.html.

18 http://www.lucent.com/press/1201/011225.coa.html.

CHAPTER VI

PATTERNS OF EXPORT COMPETITIVENESS

A. Global competitiveness patterns

Traditionally, trade competitiveness is measured by shares in world exports (Lall, 1998; 2000b). By this measure, 20 economies account for over three quarters of the value of world trade (figure VI.1). The list is dominated by developed countries, led by the United States, Germany and Japan. However, if one focuses on those economies that have *gained* market share during 1985-2000, another list emerges, a list containing mostly developing economies, led by China, and also including a number of economies in transition (figure VI.1). In other words, significant changes are taking place in world trade, and a number of developing countries and economies in transition are among the principal beneficiaries.

Trade patterns are changing significantly. These changes also reflect structural shifts in production caused by new technologies, new demand patterns, new logistical factors, new ways of organizing and locating production, new policies and new international trade rules and preferences. Perhaps the most important driver of the changing patterns of exports is *technological progress*.[1]

A broad classification of merchandise exports distinguishes between *primary products* and *manufactures*, with the latter further divided into four groups: *resource-based, low-technology, medium-technology* and *high-technology* products.[2] Since information and communication technology products are an important part of the high-technology group, they are shown as a sub-category in some instances. It is assumed that technological sophistication rises across these categories: primary and resource-based products are at one end, high-technology products at the other. Whether rapid and sweeping technological change affects all categories equally or favours some categories

over others is still open to question. *Services*, although growing in importance, are not considered in this discussion, because of the unavailability of sufficiently detailed statistics on trade in services at the same level of detail as those for trade in goods.

A few words of caution are in order at the start. All technology categorizations involve aggregation, and this may conceal variations at a disaggregated product or process level. For instance, the low-technology group may have some technology-intensive products, while the high-technology group may have products with stable or relatively simple technologies. Moreover, the classification is based on the core process, but all products go through a variety of processes, some simpler than others. High-technology semiconductor manufacture needs relatively simple assembly and testing while low-technology apparel manufacture needs sophisticated design. And products can move across categories – the application of biotechnology can transform resource-based products into high-technology ones. These refinements cannot be incorporated into this analysis, which aims only to provide a reasonably accurate general picture of broad trends.

So what are the structural trends in trade patterns? The most basic trend concerns fundamental changes in the total trade composition. *Primary products and resource-based manufactures have steadily lost shares over the past several decades*, falling below 50 per cent in 1984 and reaching 28 per cent by 2000 (figure VI.2). Non-resource-based manufactures have been driving export growth, with changing levels of technology intensity. The share of resource-based products in total world trade peaked in the early 1980s, and that of low-technology products in the early 1990s (figure VI.3). If this reflects long-term trends, it suggests that countries that have specialized in these products may find it hard to sustain high export growth. It *is* possible to grow in stagnant markets,

Figure VI.1. World export market shares, 2000, and changes, 1985-2000

The 20 economies with the largest
export market shares, 2000
(Percentage)

The 20 winner economies, based on export
market share gains, 1985-2000
(Percentage)
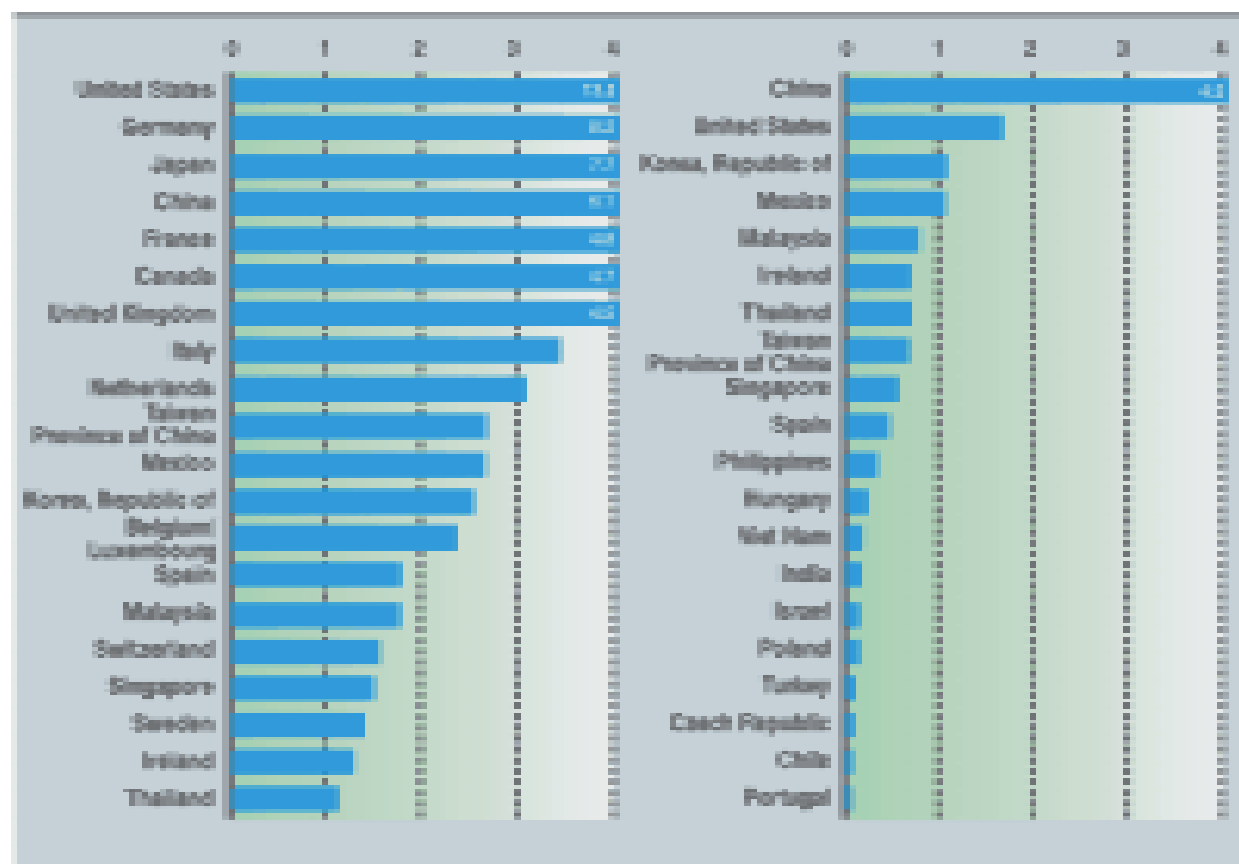
Source: UNCTAD, based on the United Nations Comtrade database.

**Figure VI.2.   Shares of resource-based and non-resource-based products
in world trade, 1976-2000ᵃ**
(Percentage)
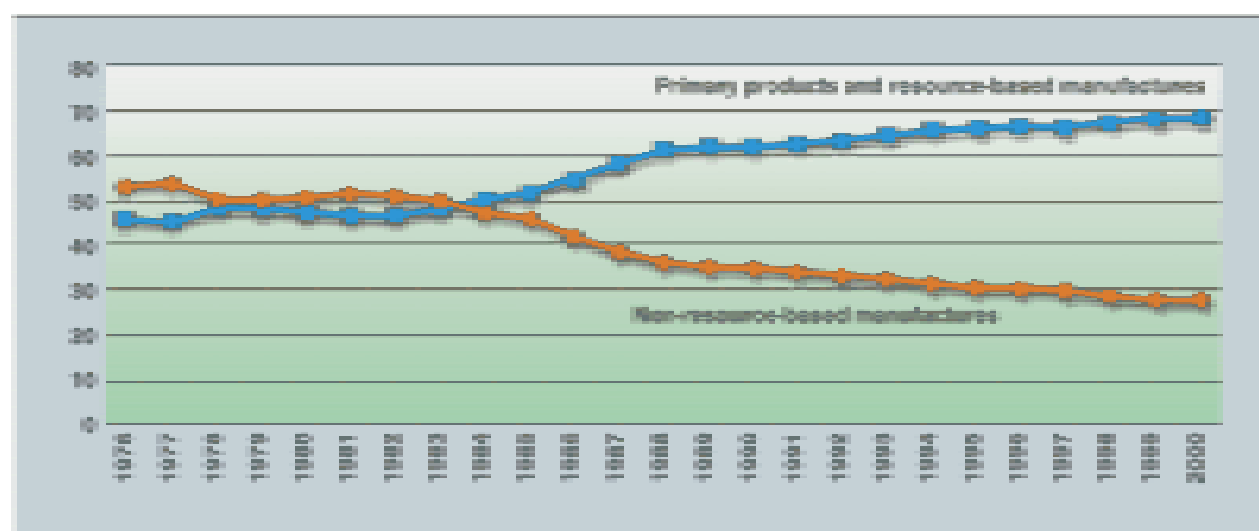
Source: UNCTAD, based on the United Nations Comtrade database.

ᵃ   Three-year moving averages are used. For 2000, a two-year average (1999-2000) is used.

Figure VI.3. **Shares of manufactured products in world exports by technology groupings, 1976-2000**
(Percentage)
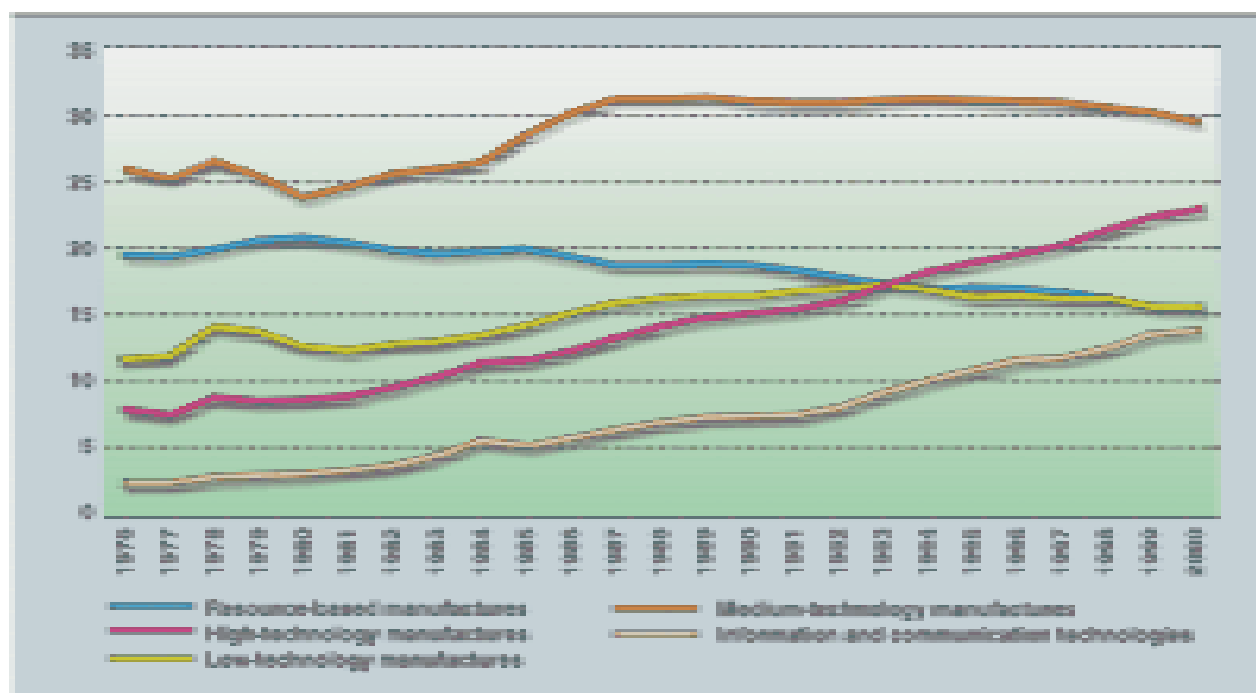
Source: UNCTAD, based on the United Nations Comtrade database.

but it has to be at the expense of other exporters. When entry is easy and competition intense, as in low-technology products, constant effort is required to stay ahead of competitors.

Second, and perhaps most striking, *exports grow faster the more advanced the level of technology and the less the reliance on natural resources* (figure VI.4).[3] High-technology products are the most dynamic export category, not just for industrial countries but also for developing ones whose competitive edge has traditionally been in resource-based exports and labour-intensive manufactures.

Third, the share of parts and components in total trade is rising (Feenstra, 1998; Hummels, Ishii and Yi, 2001). This raises the question as to the precise dimension of the increase in trade values given that, increasingly, components and parts can be involved in numerous cross-border trade operations before being incorporated into the final products. This means that the same inputs may be counted several times. This being said, the share of parts and components in total machinery exports rose somewhat for the developed countries as a group, from 26 per cent in 1978 to 30 per cent in 1995

(Yeats, 2001). Such trade is particularly important in telecom equipment, office machinery, motor and non-motor vehicles, and electric machinery (Yeats, 2001; Ng and Yeats, 1999). In the telecom industry, for example, trade in parts and components accounted, on average, for half the total exports, while almost three-quarters of all Asian imports of telecom equipment consisted of components for further assembly (Ng and Yeats, 1999). At the country level, the ratio of parts and components in total manufacturing imports in 1996 varied between a quarter to almost half for a group of countries that are among the high export performers (the ASEAN-5,[4] Mexico and Ireland).

Fourth, developing countries are growing faster than industrial countries in exports of more technology-intensive products, while falling behind them in exports of primary products and resource-based manufactures.[5] *High-technology exports are now the largest foreign-exchange earners for the developing world.* In 2000, exports of high-technology products by developing countries amounted to $450 billion – $64 billion more than primary exports, $45 billion more than low-technology exports, $140 billion more than medium-

Figure VI.4. **Average annual growth rates of world exports, by technology intensity, 1985-2000**
(Percentage)
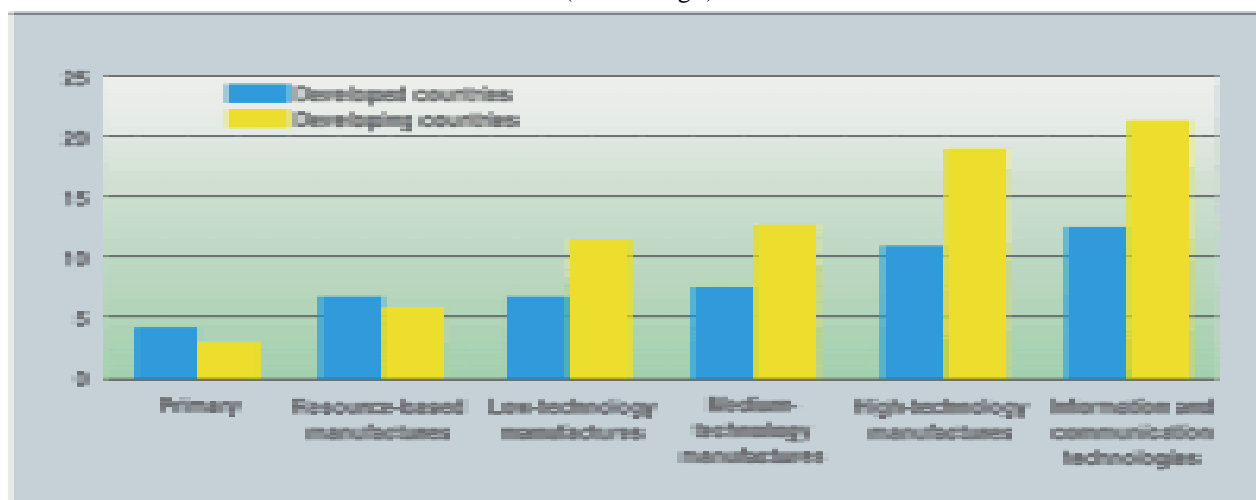
Source: UNCTAD, based on the United Nations Comtrade database.

technology exports, and $215 billion more than resource-based exports. A large proportion of high-technology exports by developing countries reflects, of course, relatively simple labour-intensive operations (assembling mainly imported components) rather than complex manufacturing or R&D using substantial local physical and technological inputs (Lall, 2001a, UNCTAD, 2002a, ch. III). But there are exceptions. Economies such as Singapore, the Republic of Korea and Taiwan Province of China have moved into the most complex areas of manufacturing and design. And local content is growing in many countries in which high-technology exports have taken root; in China, for instance, backward linkages are expanding (*WIR01*; Lemoine, 2000).

So much for structural trends. What is changing? More specifically, what are the most *dynamic products* in world trade and which are the up-and-coming countries?

During the period 1985-2000, at the four-digit Standard International Trade Classification (SITC, Rev. 2) level, the most dynamic products – defined here as the top 40 that accounted for at least 0.3 per cent of world trade and that increased their market share between 1985 and 2000 – are mainly from the high-technology group, although there are also some from the other technology groups (box VI.1).

The structural trends also suggest that sustained export growth tends to involve a move up the technology ladder – from simple to complex products – in addition to upgrading quality and efficiency in existing exports. In addition, good production "positioning", shifting from slow- to fast-growing segments, is an important part of any competitiveness strategy. And this is what the most dynamic exporters have been able to do. They started with simple products and functions and, over time (while upgrading the quality of the exports they were producing), they moved into more technology-intensive products and more demanding functions.

However, relatively few developing countries have thus far been able to build competitiveness in this manner. Regional and national export performance remains very uneven, and seems to be becoming more so over time (table VI.1). Within the developing world, East and South-East Asia has been the largest gainer in all categories apart from primary products. Latin America has made some gains but on a much smaller scale. South Asia, West Asia and North Africa have only managed marginal improvements. Sub-Saharan Africa has lost market share, even in the slow-growing primary and resource-based exports in which it is specialized.

Moreover, export performance is *highly concentrated* at the country level. And, over 1985-2000, this concentration rose for every

Box VI.1. Dynamic products in world trade, 1985-2000[a]

The 40 most dynamic products in world exports comprise only 5 per cent of the 786 products at the SITC, Rev. 2 four-digit level. But by 2000, they accounted for nearly 40 per cent of the value of total exports. As a group, these products grew at 12 per cent annually over the 15-year period (compared to overall export growth of 8.2 per cent) and raised their market shares by 15 percentage points.

Three manufacturing industries stand out: electronics, automotive and apparel, accounting for 19 of the 40 most dynamic products, and for almost one-quarter of the total import value in 2000. They also accounted for almost 10 percentage points of the growth in world trade in 1985-2000.

The 12 electronics items in the list accounted for 13 per cent of world exports in 2000 and for almost 9 percentage points of export growth between 1985 and 2000. Most of these high-technology products revolve around information and communication technologies. In medium-technology products, the automotive industry (four items) accounted for nearly 9 per cent of exports but grew relatively slowly, providing only 0.6 percentage points of the increase. In low-technology products, the main products were in apparel, which accounted for under 2 per cent of world trade and provided 0.6 percentage points of the increase.

Box table VI.1.1. Dynamic products in world exports, ranked by change in market share, 1985-2000
(Millions of dollars and percentage)

Rank	SITC code	Product	Market Share 1985	Market Share 2000	Market Share Increment	Value 1985	Value 2000	Annual growth rate
1	7764	Electronic microcircuits	0.82	3.38	2.56	13 976	186 887	18.9
2	7599	Parts and accessories for data processing machines[a]	1.02	2.33	1.30	17 446	128 882	14.3
3	7524	Digital central storage units, separately consigned	0.02	1.01	0.99	295	55 942	41.9
4	7643	Television, radio and related transmitters and receivers	0.11	0.91	0.81	1 811	50 614	24.9
5	5417	Medicaments	0.53	1.24	0.71	8 985	68 452	14.5
6	7649	Parts and accessories for telecom and recording apparatus[a]	0.67	1.28	0.61	11 346	70 633	13.0
7	7641	Telephonic and telegraphic apparatus	0.28	0.83	0.55	4 704	45 962	16.4
8	7523	Complete digital central processing units	0.30	0.74	0.44	5 160	40 845	14.8
9	7721	Electrical apparatus for making/breaking electrical circuits	0.64	1.05	0.41	10 919	58 297	11.8
10	7788	Other electrical machinery and equipment[a]	0.48	0.86	0.39	8 132	47 829	12.5
11	8942	Children's toys, indoor games	0.40	0.79	0.39	6 804	43 509	13.2
12	8939	Miscellaneous articles of chemicals	0.40	0.77	0.37	6 815	42 483	13.0
13	7924	Aircraft, mechanically propelled (other than helicopters)	0.44	0.78	0.34	7 496	43 222	12.4
14	7525	Peripheral units for data processing equipment	0.66	0.98	0.32	11 248	54 390	11.1
15	7712	Other electric power machinery and parts[a]	0.17	0.49	0.32	2 829	26 929	16.2
16	7731	Insulated electric wire, cable, bars, strip and the like	0.29	0.60	0.30	5 012	33 062	13.4
17	5148	Other nitrogen-function compounds	0.15	0.45	0.30	2 578	25 009	16.4
18	8462	Under garments, knitted or crocheted, of cotton	0.16	0.44	0.28	2 714	24 145	15.7
19	7768	Piezo-electric crystals, parts of transistors and cathode valves[a]	0.31	0.58	0.27	5 285	32 259	12.8
20	7522	Complete digital data processing machines	0.20	0.47	0.27	3 400	26 035	14.5
21	7810	Passenger motor cars	4.90	5.15	0.25	83 547	285 222	8.5
22	5839	Other polymerisation and copolymerisation products	0.16	0.40	0.24	2 736	22 087	14.9
23	8219	Other furniture and parts[a]	0.32	0.55	0.22	5 495	30 281	12.1
24	7763	Diodes, transistors and similar semiconductor devices	0.22	0.42	0.20	3 735	23 025	12.9
25	7149	Parts of non-electrical engines and motors[a]	0.28	0.46	0.19	4 712	25 648	12.0
26	8211	Chairs and other seats	0.26	0.43	0.18	4 366	24 006	12.0
27	8983	Gramophone records and other sound or similar recordings	0.33	0.50	0.17	5 609	27 880	11.3
28	8720	Medical instruments and appliances[a]	0.24	0.41	0.17	4 122	22 722	12.1
29	8451	Jerseys, pullovers, twin-sets, cardigans, jumpers etc.	0.39	0.54	0.15	6 594	29 987	10.6
30	8439	Other outer garments, women's, girls', infants', of textile fabrics	0.30	0.45	0.15	5 161	25 015	11.1
31	7284	Machinery and parts for specialized industries	0.68	0.82	0.14	11 618	45 617	9.6
32	7132	Internal combustion piston engines for road vehicles	0.45	0.58	0.14	7 599	32 368	10.1
33	5989	Chemical products and preparations[a]	0.45	0.58	0.13	7 603	31 865	10.0
34	7611	Television receivers, colour	0.27	0.40	0.13	4 589	21 955	11.0
35	5156	Heterocyclic compounds; nucleic acids	0.32	0.44	0.12	5 445	24 599	10.6
36	7849	Other parts and accessories of motor vehicles[a]	2.23	2.33	0.10	37 954	129 051	8.5
37	6672	Diamonds (except sorted industrial diamonds), unworked, cut	0.83	0.92	0.09	14 166	50 741	8.9
38	7139	Parts of the internal combustion piston engines[a]	0.34	0.40	0.06	5 814	22 249	9.4
39	7492	Taps, cocks, valves etc. for pipes, boiler shells, tanks, vats	0.34	0.40	0.06	5 854	22 168	9.3
40	7929	Aircraft parts[a] (except tyres, engines, electrical parts)	0.49	0.53	0.04	8 334	29 475	8.8
		Total above products	21.84	36.71	14.87	372 006	2 031 347	12.0

Source: UNCTAD, based on the United Nations' Comtrade database, 4-digit SITC, Rev. 2.
[a]   Not elsewhere specified.

Source: UNCTAD.

[a]   The methodology used here is quite similar to that used in UNCTAD's *Trade and Development Report 2002*. The *Trade and Development Report* selected dynamic products according to the criterion of average annual export value growth (at three digits of the SITC, Rev. 2) between 1980 and 1998. The *WIR* selects from the universe of world imports only those products (at four digits of the SITC, Rev. 2) that accounted for at least 0.33 per cent of total world trade in 2000, and ranks them according to the increase in their market shares between 1985 and 2000. The differences are minor. For a full description of the *Trade and Development Report* methodology, see UNCTAD, 2002a; Mayer, Butkevicius and Kadri, 2002.

Table VI.1. The structure of world trade in major product categories, by region, 1985 and 2000[a]

(Percentage)

| Product | Developed countries[b] | | CEE[b] | | Developing countries[b] | | Of which | | | | | | | | | |
| | | | | | | | East and South-East Asia | | Latin America and the Caribbean | | Middle East and North Africa | | South Asia | | Sub-Saharan Africa | |
	1985	2000	1985[c]	2000	1985	2000	1985	2000	1985	2000	1985	2000	1985	2000	1985	2000
Primary products	38.0	40.4	0.8	3.6	61.2	56.0	10.4	9.5	12.5	13.2	21.4	20.9	1.2	1.2	5.4	4.3
Manufactures based on natural resources	68.7	68.2	1.4	5.2	29.8	26.6	8.4	11.7	7.0	6.5	4.9	3.9	0.8	1.4	1.7	1.3
Manufactures not based on natural resources	81.9	66.8	0.6	2.4	17.5	30.8	10.8	22.6	2.6	4.6	0.8	1.1	0.6	1.0	0.4	0.2
Low-technology	66.4	49.7	1.2	3.6	32.4	46.6	22.9	33.4	3.2	5.3	1.6	2.7	1.9	3.4	0.5	0.4
Medium-technology	89.2	78.6	0.5	2.6	10.4	18.8	4.7	11.7	2.5	5.0	0.5	0.8	0.2	0.3	0.3	0.3
High-technology	83.2	63.4	0.2	1.3	16.6	35.4	10.9	29.1	2.1	3.6	0.3	0.3	0.1	0.1	0.3	0.1
Other transactions	71.2	58.4	0.2	1.2	28.6	40.4	5.3	8.6	4.2	4.8	0.9	0.9	0.2	0.2	4.1	1.9
Total	**68.9**	**63.5**	**0.8**	**2.9**	**30.3**	**33.6**	**10.1**	**18.7**	**5.8**	**6.0**	**6.3**	**4.0**	**0.8**	**1.0**	**1.9**	**1.0**

Source: UNCTAD, based on the United Nations' Comtrade database.

a   Based on three-year average for 1985 (1984-1986) and a two-year average for 2000 (1999-2000).
b   These three regions add up to 100 per cent for each export category.
c   The share of CEE in exports is understated for 1985 because data are lacking in a number of countries. This also overstates the relative gain in the group's market shares over time.

technology category (figure VI.5). In 2000, the 10 leading developing-country exporters accounted for some 80 per cent of total manufactured exports by the developing world, up from 57 per cent in 1985. The pattern of country concentration in 2000 differed from that in 1985. In 1985, the degree of concentration was highest in the low-technology category, while in 2000 it was the highest in the high-technology category.

Figure VI.5.   Shares of the top 10 exporters of manufactured exports in developing countries
(Percentage)

Source: UNCTAD, based on the United Nations' Comtrade database and UN-ECLAC's TRADECAN.

This suggests that entry barriers into the high-technology category have become higher.

Another measure of concentration, the *number* of developing countries and economies in transition with exports of $500 million or more in 2000, indicates a high degree of concentration (figure VI.6). There are fewer large exporters the higher the technology level.

How have individual countries fared in increasing their market shares during 1985-2000? The "winners" are economies that have raised their world market shares by

at least 0.1 per cent over the period, ranked from the highest to the lowest by rise in market share (table VI.2). Growing market shares show *dynamic* competitiveness (static competitiveness being shown by market shares at a point in time) and reveal the ability of a country to keep up with changing technologies and trade patterns. (Winners are analysed in more detail in the annex to this chapter.) Note that winners do not include large exporters that have not improved their competitive position during 1985-2000 (e.g. Japan in high-technology exports), even though they might have the largest market shares over the whole period.

It needs to be emphasized that export market shares are hard to gain and hard to sustain. A genuine improvement in international competitiveness can result from the upgrading of human resources or the use of improved technologies. On the other hand, market shares can also be gained because of temporary advantages such as preferential market access for labour-intensive, low-technology goods. Thus different factors can drive an increase in market share, some leading to sustained increases, others not.

Some points of interest to note when looking at the export winners in each category:

•   China figures at the top of the list in all categories of exports, except for resource-based manufactures in which it ranks third.[6]

Figure VI.6.   Number of developing and CEE countries with exports of $500 million or more

Source: UNCTAD, based on the United Nations' Comtrade database and UN-ECLAC's TRADECAN.

•   Of the mature Asian newly industrializing economies, Hong Kong, China is a winner

only in resource-based manufactures while the Republic of Korea, Singapore and Taiwan Province of China appear in the top 10 of several categories (except resource-based manufactures and low-technology products, in which they have lost market shares). Of the new "tigers", Malaysia, Thailand and, to a lesser extent, the Philippines are prominently placed on the list for all sectors.

• From South Asia, India appears among the winners in resource-based manufactures and in the low-technology sector, while other countries such as Bangladesh, Pakistan and Sri Lanka appear only in low technology.

• In Latin America, Mexico is by far the strongest performer, ranking high virtually across the board, but especially in non-resource-based sectors. Other countries from the region rank far behind Mexico and fall into two groups: those that specialize in resource-based manufactures (Argentina and Chile) and those that do so in low-technology (Dominican Republic, El Salvador, Honduras) and high-technology (Costa Rica) goods.

• Sub-Saharan Africa is conspicuous by its absence, with even South Africa failing to appear among the top 20.

• From the European periphery, Turkey appears in all categories of non-resource-based manufactures, while Morocco appears in high-technology and low-technology, and Tunisia in low-technology.

• The leaders among the winners from CEE are Hungary, Poland and the Czech Republic, with Hungary showing the strongest growth in all categories except low-technology products. The Russian Federation appears only once as a winner, in resource-based manufactures, as does Slovakia in medium-technology products.

• Among developed countries, perhaps the most surprising fact is their prominence in resource-based manufactures, where they make up 8 of the 23 top winners. In high-technology products, the picture is different, with only four industrial country winners. This reflects in large part the transfer of segments of high-technology operations to low-cost countries by TNCs.

Table VI.2. The top 20 export winners, by technology category, 1985-2000

Rank	All sectors	Resource-based manufactures	Non-resource-based manufactures	High-technology manufactures	Medium-technology manufactures	Low-technology manufactures
1	China	Ireland	China	China	China	China
2	United States	United States	Mexico	Malaysia	Mexico	United States
3	Republic of Korea	China	Malaysia	Taiwan Province of China	United States	Mexico
4	Mexico	Republic of Korea	United States	Republic of Korea	Republic of Korea	Indonesia
5	Malaysia	India	Thailand	Singapore	Spain	Thailand
6	Ireland	Russian Federation[a]	Republic of Korea	Mexico	Taiwan Province of China	Malaysia
7	Thailand	Thailand	Singapore	Philippines	Malaysia	Canada
8	Taiwan Province of China	Indonesia	Philippines	Thailand	Thailand	Turkey
9	Singapore	Israel	Indonesia	Ireland	Hungary	India
10	Spain	Japan	Taiwan Province of China	Finland	Indonesia	Poland
11	Philippines	Switzerland	Ireland	Hungary	Poland	Viet Nam
12	Hungary	Chile	Hungary	Indonesia	Czech Republic[a]	Bangladesh
13	Viet Nam	Spain	Spain	Israel	Portugal	Honduras
14	India	Australia	Poland	Costa Rica	Singapore	Dominican Republic
15	Israel	Poland	Turkey	Poland	Turkey	Pakistan
16	Poland	Hong Kong, China	India	Czech Republic[a]	Argentina	Tunisia
17	Turkey	United Arab Emirates	Israel	Turkey	India	Sri Lanka
18	Czech Republic	Mexico	Viet Nam	Malta	Ireland	El Salvador
19	Chile	Iran	Czech Republic[a]	Spain	Slovakia[a]	Guatemala
20	Portugal	Argentina	Bangladesh	Morocco[b]	Australia	Morocco

Source: UNCTAD calculations, based on the United Nations' Comtrade database.

[a]   1995-2000.
[b]   0.04 per cent.

Note: Only countries with at least a 0.1 per cent increment in market share between 1985 and 2000 are included in the list.

- In non-resource-based products, Ireland, Spain and the United States lead the winners in the developed world. Other strong high-technology performers are Israel and Finland. The United States, the global winner in resource-based products and the runner-up in low-technology, does not appear at all in high-technology products (where it is the largest exporter in absolute terms but has not raised its market share). Part of the strong growth of its medium-technology and low-technology exports has to do with its export of components for overseas assembly, driven by its own TNCs.

- Japan, the second largest industrialized economy, figures among the winners only in resource-based products. It is a large exporter in most non-resource-based categories but has suffered from stagnant or falling market shares during the period considered. Most other large industrialized countries are in a similar situation. This is not surprising, in that it is difficult to raise shares beyond a certain (high) level. However, the United States did raise its high market shares in all but high-technology products, making its performance all the more remarkable.

The main conclusions of the analysis in this section are the following:

- The most dynamic products in world trade are found mainly in three manufacturing industries: electronics, automotive and apparel.

- Trade in parts and components has assumed more importance.

- The distribution of trade among developing countries is highly concentrated: the 10 leading developing-country exporters accounted for some four-fifths of total manufactured exports of developing countries in 2000.

- A number of developing economies have achieved important gains in market shares in technology-intensive industries of non-resource-based manufactures. The most noteworthy are China, Malaysia, Mexico, the Philippines, the Republic of Korea, Singapore, Taiwan Province of China and Thailand. Of the economies in transition, Hungary registered the greatest advance.

- It is also noteworthy that many small economies – such as Costa Rica, Ireland, Taiwan Province of China and Singapore – are among the most dynamic ones.

- Asian winners have gained market shares in all major markets (Japanese, European and North American), while the winners from the other regions have advanced only in the context of regional markets. Western and Eastern European winners have gained only in European markets, and countries in Latin America and the Caribbean have gained only in North American markets (see the annex to this chapter).

As will be discussed below, TNCs played an important role in the export performance of many of the most dynamic products in the winner countries. However, as discussed below export performance in and by itself needs to be complemented by sharing on the benefits of exports. Before discussing that, however, the role of TNCs in exports in general needs to be reviewed.

B. TNCs and exports

What role do TNCs play in the trade performance of countries?

1. The overall picture

The role of TNCs in expanding exports of host developing countries derives from the additional capital, technology and managerial know-how they can bring with them, along with access to global, regional, and especially home-country, markets. The resources and market access TNCs can bring can complement a country's own resources and capabilities and can provide some of the missing elements for greater competitiveness. Host countries can build upon these to enter new export activities and improve their performance in existing ones.

In some cases, especially those of countries in which domestic investment is limited by financial constraints, TNCs can help increase exports simply by bringing in additional capital and investing it in the exploitation of natural resources or low-cost labour. In such cases, foreign affiliates contribute to the export performance of host countries by bridging the resource gap and taking the risk of developing new exports.

The provision of capital has been an important aspect of the historical role of TNCs in building up developing-country exports of raw materials and labour-intensive manufacturing exports.

More importantly, TNCs can provide host countries with competitive assets for export-oriented production in technology-intensive and dynamic products in world trade. Such assets are often firm-specific, costly and difficult for firms in developing countries and economies in transition to acquire independently. When TNCs are unwilling to part with their ownership-specific advantages (as is the case with many of the newest and most valuable ones such as state-of-the-art technologies), FDI becomes particularly important for export competitiveness. Regardless of the mode of TNC participation, the transfer of such assets by TNCs to their foreign affiliates or non-equity partners in host countries through training, skills development and knowledge transfer opens up prospects for further dissemination to other enterprises and the economy at large. (On linkages, see *WIR01*.) This means that a wider group of firms (including domestic enterprises) can develop their exports and the factors underlying competitiveness get rooted in the host economy.

Besides strengthening the supply capacities of export-oriented industries in host countries through the transfer of resources, assets and capabilities, TNCs can enhance the demand conditions facing exports by developing countries and economies in transition, by facilitating their access to new and larger markets. This involves foreign affiliates' privileged access to TNCs' intra-firm markets and access at arm's length to TNCs' customers in global, regional and home-country markets. It also involves the access of non-equity partners to TNCs' international production systems. As in the case of technology, these links of foreign affiliates and contractual partners in host countries to markets can spill over to suppliers and other domestic firms. The case of ENGTEK, headquartered in Penang, Malaysia, is an example of a local supplier that engaged in closely-knit partnerships with TNCs and through this network became a global supplier (*WIR01*). In addition, host countries may also benefit from the lobbying activities of TNCs in their home countries for favourable treatment of exports from competitive host countries.

Finally, export-oriented affiliates can provide training for the local workforce and upgrade technical and managerial skills that benefit the host economy more broadly than the income earned by employees. Even simple operations need considerable training for new employees, particularly in developing countries without a strong industrial skill base. More sophisticated operations – complex manufacture, design, development and regional headquarters functions – entail more skill creation.[7] How much TNCs invest in employee training depends, of course, on the "raw material" the host economy provides – general education and training, technical skills, institutional support, standards and quality, and the like. This applies especially to export-oriented investments in advanced technological capabilities. This is the strategic challenge facing countries that have already attracted significant TNC export activity at low technological levels. Their future competitiveness depends on the host government's ability to boost the human capital and technological infrastructure. In turn, TNCs feed benefits back into local skill and technology systems, providing information, assistance and contracts.

On the other hand, depending on TNCs for all improvements in export competitiveness brings its own risks for host countries. TNCs may focus solely on the static comparative advantages of a host country. While this might resolve some of the short-term efficiency-related problems of TNCs, it means that a number of the benefits that can be associated with export-oriented foreign affiliates may fail to materialize in the host country (UNCTAD, 2002a). In particular, dynamic comparative advantages may not be developed, local value-added may not be increased and affiliates may not embed themselves in the local economy by building linkages to the domestic entrepreneurial community, by further developing labour skills, or by introducing more complex technologies.

Moreover, TNCs can leave countries when conditions change and profit prospects are affected. Export-oriented TNC activity is particularly sensitive to changes in the cost of production, market access, regulatory conditions or perceptions of risks. If relocation of foreign affiliates occurs with little warning, a host country can face serious problems. In labour-intensive industries, characterized

by an investment in capital not important enough to represent a big loss for investors in the case of disinvestment, sudden shifts in production locations – due, for example, to changes in regulations, incentives or preferential schemes – may occur more often. Over time, there is also a risk of relocation of labour-intensive production to lower-cost sites, as the wage level increases with income growth (*WIR95*, ch. V). Although the ability of TNCs to switch locations diminishes with the technology intensity of exports for many of the poorest host economies, it represents a serious problem requiring policy attention.

Finally, there is also the risk that host countries attempt to attract FDI – most particularly export-oriented FDI for which international competition is particularly strong – through incentives and by lowering labour standards, environmental standards or other economic or social standards. This can lead to a race to the top as far as incentives are concerned and a race to the bottom in terms of social benefits for workers and the economy as a whole. In addition, if all countries aim at exporting the same products at the same time, most of them may well be worse of (UNCTAD, 2002a).

All this suggests that countries need to pay attention not only to *attracting* export-oriented TNC activities, although this is the basis for benefiting from them. They also need to pursue active policies to *increase the benefits* from export-oriented TNC activities once they have attracted them. The trade balance is relevant here, but particular attention needs to be given to upgrading and the sustainability of export-oriented production.

What role, then, do TNCs play in trade?

There is no way to calculate the precise share. To begin with, data simply do not exist on that part of international trade that firms, under the common governance of TNCs, undertake via non-equity forms. When it comes to trade associated with foreign affiliates, an extrapolation from some leading industrialized countries that do collect such data puts the share of trade involving TNCs at around *two-thirds* of world trade for the latter half of the 1990s, including both intra-firm and third-party transactions (*WIR99*).[8]

More importantly, an estimated one-third of world trade consists of *intra-firm* trade (i.e. trade among the various parts of a single corporate system). The share of intra-firm exports by parent firms in the total exports of their home countries rose from 27 per cent in 1990 to 31 per cent in 1998 in the case of United States TNCs (United States, Department of Commerce, 1993, 2002), while it remained stable in the case of Japanese TNCs at around 38 per cent (Japan, MITI, 1998; Japan, METI, 2001a). This trend towards increasing intra-firm trade is corroborated by data for United States foreign-affiliate exports. Two-thirds of these exports were intra-firm in 1998, as compared to 55 per cent in 1983.

As noted earlier, trade in parts and components has assumed greater importance in world trade. Such trade also appears to be gaining in importance within corporate systems. In particular, the share of exports in electronic components and accessories as a percentage of total exports of electronic equipment was higher in the case of exports from United States foreign affiliates to affiliated firms (65 per cent) than in the case of the affiliates' exports to non-affiliated firms (58 per cent). At the same time, a shift from low- and medium-technology manufacturing exports towards high-technology manufactures can be observed since the early 1980s in intra-firm trade (annex table A.VI.1). The share of high-technology manufactures in intra-firm exports of United States affiliates rose from 29 per cent in 1983 to 43 per cent in 1998. All this suggests that the international intra-firm division of labour is intensifying – the hallmark of international production systems.

The significance of exports by foreign affiliates in total exports of host countries varies. Scattered national data on the share of foreign affiliates (as distinct from domestic firms) show that their contribution is often considerable and is growing over time (table VI.3). The significance of TNCs in host-country exports is not limited to countries that have benefited as export winners (as discussed in the preceding section); it can also be observed in other countries, such as Argentina, Brazil, Canada, Estonia, Finland and Slovenia (see table VI.2 for the list of top 20 exporters in non-resource-based manufacturing), in all of which more than 30 per cent of exports are accounted for by foreign affiliates.

How does the picture look if each of the main economic sectors is considered separately?

2. Primary products

In developing countries, the traditional role of TNCs has been to extract and export *primary products*. Although the share of this sector in world trade is declining (as

it is in world FDI – see *WIR01*, Part One), the sector and the role of TNCs in it remains important for many countries and can help them move into higher-value-added activities (World Bank, 2002b). For many of the poorest countries, the availability of natural resources is their only comparative advantage. In Africa, for example, a good many of the continent's 54 countries depend on a limited number of primary products for the lion's share of

Table VI.3. Shares of foreign affiliates in the exports of selected host economies, all industries and manufacturing,[a] selected years

(Percentage)

Economy	Year	All industries	Manufacturing[a]
Developed countries:			
Austria	1993	23	14
	1999	26	15
Canada[b]	1994	46[c]	41[c]
	1995	44[c]	39[c]
Finland	1995	8	10
	1999	26	31
France[b]	1996	22	27
	1998	21	26
Ireland[b]	1991	..	74[d]
	1999	..	90[d]
Japan	1988	4	3
	1998	4	4
Netherlands[b]	1996	44	22
Portugal[b]	1996	23	21
	1999	17	21
Sweden[b]	1990	21[e]	21[e]
	1999	39[e]	36[e]
United States	1985	19	6
	1999	15	14
Developing economies:			
Argentina[f]	1995	14	..
	2000	29	..
Bolivia[f]	1995	11	..
	1999	9	..
Brazil[f]	1995	18	..
	2000	21	..
Chile[f]	1995	16	..
	2000	28	..
China	1991	17[g]	16
	2001	50[g]	44[h]

Economy	Year	All industries	Manufacturing[a]
Colombia[f]	1995	6	..
	2000	14	..
Costa Rica	2000	50	..
Hong Kong, China	1985	..	10
	1997	..	5
India	1985	3	3
	1991	3	3
Malaysia	1985	26	18
	1995	45	49
Mexico[f]	1995	15	..
	2000	31	..
Peru[f]	1995	25	..
	2000	24	..
Republic of Korea	1999	..	15[i]
Singapore	1994	..	35
	1999	..	38
Taiwan Province of China	1985	17	18
	1994	16	17
Central and Eastern Europe:			
Czech Republic	1993	..	15[j]
	1998	..	47[j]
Estonia[b]	1995	..	26[j]
	2000	60	35[j,k]
Hungary	1995	58	52[j,l]
	1999	80	86[j,k]
Poland[b]	1998	48	35[j,l]
	2000	56	52[j,k]
Romania	2000	21	..
Slovenia	1994	..	21[j]
	1999	26	33[j,k]

Source: UNCTAD, based on the UNCTAD FDI/TNC database.

[a] Share of exports of foreign affiliates in the manufacturing sector in merchandise exports of host economies.
[b] Data for exports of foreign affiliates refer to exports of majority-owned foreign affiliates only.
[c] Data for exports of foreign affiliates from OECD, 2002.
[d] Data refer to local units, from the Central Statistics Office, Census of Industrial production.
[e] Data from Swedish ITPS, 2001. Manufacturing includes mining and quarrying.
[f] Data for exports of foreign affiliates were based on 1998-2000 average and were provided by ECLAC, International Trade and Integration Division. Based on a sample of 385 foreign-owned firms, 82 in Argentina, 160 in Brazil, 20 in Chile, 21 in Colombia, 93 in Mexico and 9 in Peru.
[g] Data from MOFTEC.
[h] 2000.
[i] Data from Soon (2001), based on exports of 267 exporting companies out of a sample of 305 manufacturing foreign affiliates, accounting for 47.5 per cent of the stock of FDI in the Republic of Korea. Total exports generated by foreign affiliates are thus likely to be considerably larger (based on a survey undertaken by the Korea Institute of Economy and Technology.
[j] Data on the exports of foreign affiliates from Andrea Eltetö (2000).
[k] 1998.
[l] 1993.

their export earnings. To illustrate, in Botswana, diamonds alone accounted for 79 per cent of exports in 1999, while copper and nickel represented an additional 5 per cent. In Papua New Guinea, gold and copper together accounted for almost half the exports in 1999 (Ericsson, 2002).

While natural resources are generally not dynamic in world trade, new resource-based exports are emerging, such as horticulture, often with TNC involvement at one or more points of the value chain. In Kenya, for example, horticulture – with substantial TNC involvement (box VI.2) – was the second most important export item in 2001, accounting for 16 per cent of total merchandise exports (Kenya, Central Bureau of Statistics, 2002). In more traditional agricultural commodities (such as bananas and other tropical fruits), the role of TNCs continues to be important, although often through more specialized non-equity forms focused on marketing and distribution (UNCTAD and Cyclope, 2000, pp. 161-163). In most of these commodities, the value chains are increasingly led by large retailers that, in their quest for cost reduction and optimum distribution, build long-term direct-supply relationships with locally-owned producers (Humphries, 2001). This is a departure from the historical role of TNCs in food value chains, where they used to own production facilities as well as transportation and distribution facilities (box VI.3). In fisheries, the quest by developed-country TNCs for new sources of supply to serve expanded markets has led to an increased role for export-oriented FDI (box VI.4). As the value added in the supply chain moves away from catch or breeding towards freezing and transport, the industry is becoming increasingly knowledge- and skills-intensive (UNCTAD and Cyclope, 2000, p. 199).

In petroleum, a key primary product, new entrants into export markets (such as Angola), rely significantly on FDI, while traditional exporter countries are increasing technological sophistication and value added through both equity and non-equity arrangements with TNCs. In other extractive industries, the increasing application of new information technologies has resulted in a shift of the main value added from simple discovery and deployment of capital to the application of intelligence on known deposits

and improvements in capital efficiency (Humphries, 2001). This shift not only makes mining activities increasingly technology-intensive, but also re-emphasizes the need for various forms of cooperation with the technological leaders, typically TNCs. In the Namibian water diamond industry, for example, De Beers and Namco have established joint ventures with Namibian

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Box VI.2 Kenya's dynamic horticultural export industry

Horticulture is a rapidly growing export item. Over the four-year period between 1997 and 2001, its share in exports increased from 12 to 16 per cent (Kenya, Central Bureau of Statistics, 2002). In the flower segment of horticulture alone, the 70 leading Kenyan grower firms employed more than 50,000 people and exported flowers worth $110 million to the European Union market in 2001 (FPEAK, 2002). By 2001 Kenya had become the leading flower supplier of the European Union (accounting for 25 per cent of EU imports), ahead of Colombia (17 per cent) and Israel (16 per cent) (idem).

TNCs play an important role in Kenya's horticulture, although it varies between segments. Close to 90 per cent of Kenya's flower production, for example, is controlled by foreign affiliates (FPEAK, 2002). The supply chain is under the common governance of TNCs, from breeding through flower production to marketing and distribution. The reason for this close control is the capital- and technology-intensity of flower production. In contrast, 60 to 70 per cent of the exportable fruits and vegetables are grown by small-scale local farmers, either through out-grower schemes or through contract farming arrangements. TNCs provide farm inputs (seeds, chemicals and fertilizers), technical support and quality control as well as market information to smallholder farmers, channelled through the fresh produce exporters associations (idem). The fast expansion of flower production is, of course, not without problems, including health hazards for workers unprotected from chemicals used in flower growing. These issues have been recognized by the Food and Agriculture Organization and the United Nations Environmental Programme, which in 2001 together set up a project in Kenya to introduce alternatives to toxic chemicals (FAO, 2002). The Government of Kenya has a number of laws limiting the exposure of workers to chemicals; the effectiveness of the local enforcement of these laws, however, needs to be strengthened (ILO, 2001, p. 223).

Source: UNCTAD.

Box VI.3. The food value chain

To minimize the negative effects of commodity dependency, many commodity-dependent countries seek to diversify out of basic food commodities into higher-value-added products by moving into food-processing (e.g. the preservation and transformation of raw materials into such products as instant coffee and fruit juice) or by developing new types of food products. This strategy, however, is not easy to implement, because:

• Tariff barriers in developed countries are frequently higher for processed food products than for unprocessed ones.
• The food-processing industry is well established; a small number of TNCs controls the worldwide supply and distribution networks and brands.
• Many developing countries lack the access to raw materials, capital and markets necessary to achieve economies of scale.
• Demand for preserved products has been stagnant in developed countries as consumers' tastes shift towards fresh produce.

With the growth of international sourcing of fruits and vegetables and the increasing concentration of retailing in developed countries, the role of TNCs in host countries is changing. In the past, TNCs invested primarily in plants for the production of processed food (e.g. soluble coffee in many developing countries). They were also often the largest exporters - and also responsible for the distribution and transport - of non-traditional agricultural products in Latin America (e.g. Del Monte in Costa Rica and Dole in Honduras, both in pineapple exports); they produced most of their exports and contracted the rest to medium and large domestic growers (Thrupp, 1995). More recently, as in the case of the apparel industry, some leading TNCs no longer own factories or logistic facilities in developing countries; instead, they own retail outlets and brand names in developed countries. In this case, there are no equity links between the retailers and the rest of the value chain. However, the retailers play a decisive role in defining the structure of international trade and in determining who will be included in or excluded from the network.

Accordingly, the recent patterns of FDI in the food industry show the following characteristics:

• An increasing number of domestic exporters control land to increase supervision of the production process and secure supplies. Some large producers and exporters in Africa have invested in neighbouring countries to gain access to land. In the value chain of fresh vegetables, for example, many African exporters are encouraged by United Kingdom supermarkets to take on more of the processing activities formerly controlled by importers. In the value chains of fresh and processed fruit, market requirements are transmitted from large buyers to exporters, who then take control of production and shipment to meet those requirements. Some large, locally-owned exporters control the transport of their products. One example is Kenya's largest horticultural exporter, Homegrown, which established a joint venture with an airline company.
• Importers in developed countries invest directly in exporting companies and in farms in producer countries to ensure continuity of supply and provide the resources needed for increased local processing. For example, some importers in the United Kingdom have invested in production facilities, not only in Europe but also in the Middle East and Africa, to supply supermarkets all year round from their own farms.
• Exporters in developing countries invest in importers – or create their own importing companies – in developed countries (e.g. Homegrown's establishment of its own importer in the United Kingdom) to diminish the risk of being displaced by exporters from other countries.

The development of niche markets for higher-value fresh fruits and vegetables can create new opportunities for developing-country exports. The question arising from the development of entire-channel marketing systems, in which a greater emphasis is placed on the closer management and monitoring of food value chains, is how to link with developed-country firms within the chain. Developing-country firms are thus seeking stronger equity (e.g. joint ventures) or non-equity (e.g. strategic alliances) links with international partners who provide greater access to markets and resources for upgrading, while improving their competitiveness.

Source: UNCTAD, 2000f.

> **Box VI.4. FDI in the salmon industry in Chile**
>
> Fish is the only primary product included in the 50 most dynamic exports in the period 1985-2000, occupying the forty-ninth spot at the 3-digit level of the SITC, Rev. 2 (using the same criteria as the box VI.1). Chile and China have become two of the major exporters of fresh fish (after Norway, the United States and the Russian Federation), and are the two countries that have increased their world market share the most over the period. Chile's principal success in this industry has been in the category of fresh fillets (SITC 0343) where Chilean exports accounted for almost 20 per cent of world imports in 2000, up from 2 per cent in 1985. Most of these exports come from salmon farming, an industry that reached $950 million in 2000, or 5.3 per cent of the total exports of the country (up from 1.8 per cent in 1991).
>
> Although local companies (with important assistance from the Government) developed the salmon industry, foreign affiliates of TNCs from Europe, North America and Japan have become major exporters. By 1999, the top three exporters were all foreign affiliates. Growing international demand encouraged the major companies to seek out new sites for production, and Chile offered optimal conditions in the natural environment and the availability of labour and other inputs. Because salmon rearing in Chile is subject to Government concessions, most TNCs have preferred to acquire existing companies that already possessed concessions. In 2000, about 40 per cent of total production was in the hands of foreign affiliates.
>
> The Chilean salmon industry still has the potential to develop further, and exports are expected to reach between $2.5 and $3 billion by 2010, based on estimated future investments of $1.5 billion. But the industry is also subject to the price fluctuations typical of other primary products: in 2001, a collapse in prices meant that a 50 per cent increase in the volume of exports translated into only a 1 per cent rise in export revenues. Salmon producers are expected to maintain output levels in 2002.
>
> *Source*: UNCTAD, based on ECLAC, 2001 and Economist Intelligence Unit, 2002b.

firms and hired Namibian staff to employ front-line technology (the sweeping of the ocean floor outside the coast) in deep-water extraction. This technology is more knowledge-intensive than traditional on-land mining. Many of these ventures involve non-equity forms of TNC participation, such as contractual arrangements, rather than FDI. In bauxite mining, for example, the list of the largest 15 producers controlling more than four-fifths of world output in 2000 includes not only TNCs but also State enterprises from Guinea (fifth), Venezuela (seventh), India (tenth) and Jamaica (twelfth) (Ericsson, 2002).

3. Services

Services are a sector in which the potential for export-oriented FDI in developing countries and economies in transition is considerable, for a number of reasons:

- Services account for more than two-thirds of the GDP of developed countries (UNCTAD, 2001g, pp. 300-315), the world's principal export markets. By 1999, the share of services in GDP had surpassed 50 per cent in the developing world, and 57 per cent in the economies in transition. These countries are therefore strengthening their ability to produce more services for all markets.

- In 1999, only 12 per cent of service production entered international trade, compared to 51 per cent of the production of goods.[9] As the tradability of services increases as a result of the use of modern information and communication technologies (Sauvant, 1990), it can be expected the production of a growing number of services (or their components) will shift to developing countries, as manufacturing did.[10]

- United States data suggest that services firms are considerably less transnationalized than manufacturing firms – by a factor of three (table VI.4). However, for many corporations, service exports are ancillary to their international production activities in non-service areas and include R&D, sales and marketing, as well as procurement centres. A number of TNCs relocate these services to lower-cost sites or places that make more logistical sense, and export them from there. In the developing world, Asia appears to be more advanced than other regions in attracting both types of export-oriented FDI in services: FDI related to service exports and FDI related to service functions in international production systems. All this suggests that there is a considerable potential for firms to transnationalize and for countries to attract FDI in the services sector.

In this context, it should also be noted that trading companies play an important role in facilitating exports from host countries. In the case of the United States, wholesale trading foreign affiliates accounted for one quarter of the total exports of all majority-owned foreign affiliates of United States TNCs in 1998 (United States, Department of Commerce, 2002). This role is even stronger for Japanese trading TNCs, the *sogo shoshas*: in 1998, nearly half the exports by foreign affiliates of Japanese TNCs were handled by trading companies (Japan, METI, 2001a). The exports of *sogo shoshas* (many actually also produced by them) range from agriculture and mining to manufacturing and services products.

Services FDI in developing countries and CEE is, indeed, becoming important. As in the case of developed countries, more than half of developing countries' total FDI inward stock was in the services sector in 2000, a share nearly double that of a decade ago.[11] For example, the majority (58 per cent) of the 3,742 new global FDI projects monitored between 2001-May 2002 involved service functions.[12] A number of these service projects – including R&D, regional headquarters and call/shared-service centres (accounting for nearly one quarter of all global FDI projects) – are export

oriented. And the share of developing countries and economies in transition in some of these types of projects is on the rise. For example, their share of call centres and shared-service centres increased from 22 per cent in 2001 to 39 per cent in the first five months of 2002.[13] In R&D, their share rose from 25 per cent to 42 per cent over the same period. In the Indian information technology and software development industry alone (box VI.5), 63 major investment projects, creating almost 65,000 new jobs, were initiated during that period. While the move of export-oriented services FDI to developing countries is still incipient, it has been gathering pace.

Table VI.4. **The degree of transnationality of United States firms, by sector, 1992 and 1997**
(Percentage)

Sector	1992	1997
Total	11.6	12.5
Primary	30.9	36.2
Secondary	23.6	27.1
Tertiary	6.6	7.4

Source: UNCTAD, FDI/TNC database.

Notes: Data refer to sales of non-bank majority-owned foreign affiliates of United States non-bank TNCs divided by total sales of all United States firms. Total sales of all United States firms were taken from the 1992 and 1997 *Economic Census* of the United States Census Bureau. Data on the 1997 Census are classified according to the 1997 North American Industry Classification, superseding the Standard Industrial Classification used in prior Censuses. Data represent total sales, shipments, receipts, revenue or business done by establishments and therefore are not fully comparable to sales by foreign affiliates. Primary sector refers to mining.

Box VI.5. Indian computer software and services exports

Software and related services have been among India's fastest-growing export items, averaging 40 per cent growth per annum in 1988-2002, and expanding from $70 million in 1988 to a projected $7.6 billion in 2001/2002. Industry experts estimate that this industry accounted for 16 per cent of India's total exports in 2000/2001, employed 5 million people, and received $1.6 billion in investments (NASSCOM, 2002).

The software exports of India are highly concentrated in a few large firms (box table VI.4.1). Of the country's 30,000 software firms, just 20 accounted for 28 per cent of the industry's exports. The export propensity of these top firms is higher than 92 per cent (http://www.nasscom.org). Most of the leading software producing and exporting firms are Indian-owned. Even in the city of Bangalore, where FDI in the Indian software industry is concentrated, only 150 of the 1,001 firms operating in the technology park were foreign-owned at the end of 2001 (STPI, 2002). Moreover, some of the Indian firms are themselves becoming outward investors (Patibandla and Petersen, forthcoming, p.11).

Nevertheless, foreign companies play an important role in the industry. Foreign affiliates alone accounted (in 1998/1999) for some 19 per cent of India's software exports, often to their parent companies (Kumar, 2001); to that, one would have to add exports undertaken on the basis of non-equity links. Almost all major United States and European information technology firms are present in India, despite a limited domestic software market. They cluster their high-technology activities largely into a single location, Bangalore, because of limited basic services elsewhere. Of the 112 new FDI ventures (including both manufacturing and services) established in India between January 2001 and May 2002,[a] Bangalore attracted 38 per cent.

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Box VI.5. Indian computer software and services exports (concluded)

Some key projects – such as Intel's 1,000-job technology centre – were established in Bangalore. The strategies of TNCs in Bangalore are focused on the exploitation of a single critical input available there: skilled human resources. This means that they need to nurture local capabilities through close collaboration with universities and research centres.

To maintain their technological edge, foreign affiliates in Indian software follow two contrasting strategies. Some of them (such as Hewlett Packard, Oracle and Motorola) opt for fully-controlled affiliates, closely integrated into their corporate networks. These affiliates then subcontract product development to local software firms. Others (such as Nortel and Cisco) opt for collaboration and joint ventures with local information technology firms. In the latter cases, the establishment of joint ventures and the conclusion of collaboration agreements have been facilitated by the fact that some of the senior managers of the TNC parent companies are Indian expatriates.

Source: UNCTAD.
a   Data provided by PricewaterhouseCoopers.

The location of international service functions appears to be concentrated so far in only a few countries. In the developed world, Ireland has been highly successful in attracting international service functions (box VI.6). In the developing world, India has been a successful location, especially for software development and other international service functions. All this suggests that countries seeking to explore new frontiers in attracting export-oriented FDI should consider various service industries as well as service functions of all sorts of firms.

Box VI.6. Ireland: the growth of services exports

The export competitiveness of Ireland improved, not only by attracting FDI in manufacturing, but also in services, especially IT-based ones, such as telecom, computer and other business services. Since the late 1980s, this has been part of the investment promotion strategy followed by the Investment and Development Agency (IDA). Results include the setting up there of Intel's EU headquarters, the transformation of Ireland into a top location for customer-support services (shared-services centres[a] and call centres[b]), and the successful positioning of Ireland as the market leader in Europe for greenfield FDI in software,

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Box VI.6. Ireland: the growth of services exports (concluded)

healthcare and medical, engineering and financial services. Its International Financial Services Centre attracted increasing inflows of both FDI and portfolio capital.[c] Although new investment in the electronics and IT-services industries slowed in 2001[d], new investment took place in healthcare and financial services. Of the top 55 of Ireland's foreign-owned exporters, four were in services in 1998 (IDA, 1999). In 2000, foreign services affiliates accounted for a large share of Irish services exports, with their export propensity being higher than that of foreign manufacturing affiliates (89 per cent compared to 86 per cent, respectively – Forfás, 2002).

Source: UNCTAD.
a   Such as Whirlpool setting up its European Shared Services Centre in Dublin in 1995. Ireland is now the European financial control centre for Whirlpool, employing over 60 people, servicing the company's sales network in 16 Western European and Nordic countries. Ireland was chosen because of low operating costs, language skills, technical skills and the speed and ease of set up. Furthermore, shared-services centres were set up by Compaq, Allergan, Electrolux, Informix, Microsoft and Apple among others (IDA, 2002).
b   Call centre operations were established by American Airlines, Hertz, Starwood Hotel & Resorts, Best Western, UPS, Zomax and Dell (IDA, 2002).
c   The IFSC, established in 1987, involves over 400 foreign affiliates in such areas as banking, investment finance, corporate treasuries and insurance. Around it, a world-class support network of software development, telecommunications, shared-services centres and legal and accountancy services has emerged. Certification of new IFSC projects had already ceased by the end of 1999. Furthermore, certification of expansion of existing entities will cease at end-2002. By 2005, the different legislative regimes for the IFSC and the domestic financial services sector will be eliminated, in accordance with a corporation tax agreement with the EU by introducing a 12.5 per cent corporate tax rate (IFSC, 2002).
d   Among the measures envisaged by foreign affiliates to weather the current economic downturn in the information and communication technology industry (ICT) was the expansion of services in this industry, according to a survey by Forfás and IDA (Forfás and IDA, 2001). The survey, conducted between May and July 2001, covered 16 major IDA-supported foreign electronics affiliates (Forfás and IDA, 2001). While some highly specialized manufacturing activities will continue on a small scale, expanded services might include: ICT outsourcing, e-commerce, customer support, supply chain management and sales and systems integration all requiring highly skilled workers. To support this transition, Forfás and IDA Ireland, in conjunction with the Department of Enterprise, Trade and Employment, have put in place an "Action Plan" to improve the business environment for foreign electronics affiliates in Ireland. These efforts have become all the more necessary in light of Ireland's diminishing cost competitiveness in traditional electronics manufacturing activities (such as printed circuit boards, consumer PCs, mobile phones and most other consumer electronics, such as speakers) in comparison with locations such as the CEE or Asian countries.

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4. Manufacturing

The most prominent role played by FDI in the exports of developing countries is in the *manufacturing* sector. However, this role differs from country to country. In economies for which data are available for this sector, the share of foreign affiliates in total manufacturing exports ranges from 4 per cent in the case of Japan to 90 per cent in the case of Ireland for developed countries. For developing economies, it ranged from 3 per cent in the case of India (1991 – the most recent available year) to 49 per cent in the case of Malaysia in 1995 (table VI.3). In CEE, the share was between 33 per cent (Slovenia) and 86 per cent (Hungary) in 1999. In many developing countries and CEE, the share appears to be more than one-third and seems to have increased over time, most dramatically in China. In developed countries, it does not seem to have changed much over time.

Two aspects of the role of TNCs in the export of manufactures deserve special mention. The first concerns the setting up of *operations aimed at international markets from the start*, sometimes in the context of specific product mandates given to foreign affiliates. In the developing world, this has been the most recent form of TNC export involvement and perhaps the most important quantitatively. In the initial stages – and this persists in many countries – most such investments were relatively isolated from the host economy, they sought essentially to tap cheap labour. TNCs operating in export processing zones (EPZs) (to be discussed in chapter VII) exemplify this. In recent years, however, the distinction between domestic and export-oriented activities has been breaking down, with TNCs being allowed to serve both markets from the same facilities. In liberal trading environments like that of Singapore, this is the norm. For economies undergoing liberalization, a good example is China. Its large market and competitive production base allow TNCs to mount scale-intensive operations that serve domestic markets and move rapidly, or almost simultaneously into exports.

The second concerns the *leveraging of the presence of foreign affiliates* as a vehicle to facilitate the internationalization of domestic firms (especially suppliers of affiliates) through exports and outward FDI, upgrading, in this manner, the international competitiveness of domestic firms. The impact of foreign affiliates on domestic companies' export activities can be divided into direct and indirect effects (Blomström et al., 2000).

- *Direct effects* occur when exporting foreign affiliates establish backward linkages with local firms, which then become "indirect exporters". In addition, given the often personalized nature of buyer-supplier relationships, foreign affiliates may also provide useful contacts with other affiliates of the TNC network (Raines, Turok and Brown, 2001). For example, in the Southern Common Market (Mercosur) area in Latin America and in China, Nestlé actively assisted selected suppliers to become regional suppliers to Nestlé; Hitachi's semiconductor affiliate in Malaysia similarly assisted its vendors by introducing them to other Hitachi affiliates (*WIR01*). Export endeavours of suppliers can also be helped by their gaining access to the knowledge and information controlled by a foreign affiliate such as knowledge of foreign market conditions related to design, packaging and product quality (Blomström et al., 2000). In the United Kingdom, almost half of the domestic suppliers to TNCs had benefited in such a way from the linkages to foreign affiliates (PACEC, 1995). There are furthermore "reputation effects" to consider. According to some successful suppliers in Asia, once their reliability was proven to one large foreign affiliate, reference was provided to other assemblers or manufacturers within the same business network, or to other foreign affiliates, thus generating new opportunities (*WIR01*). Similar findings were noted in a study of suppliers to such investors as Sony and Nissan in the United Kingdom (Morris and Imrie, 1992) and in other studies (Echeverri-Carrol, Hunnicut and Hansen, 1998). The internationalization of local suppliers – by way of either increased exports or FDI – has been found to be more likely to occur when domestic collaboration between suppliers and investors is not only high, but also involves high-value-added activities. Factors that influence the likelihood of transnationalization include the complexity of the production process, the level of local procurement by the foreign affiliate, the autonomy and mandate

of the foreign affiliate, and the importance of geographical proximity between investors and suppliers (Raines, Turok and Brown, 2001).

- *Indirect effects* of the presence of export-oriented foreign affiliates occur when local firms manage to copy the operations of foreign affiliates, employ staff trained by foreign affiliates, and benefit from improvements in infrastructure and reductions in trade barriers undertaken in response to the demands of foreign companies (Blomström et al., 2000). In Mexico, for example, one study found that the probability of a Mexican-owned plant engaging in exports was positively correlated with its proximity to TNCs but not correlated with the concentration of overall exporters (Aitken et al., 1997).

In some instances, on the other hand, links to foreign affiliates may impede the efforts of suppliers to transnationalize. This may be the result of purchasing policies that indirectly hamper the transationalization efforts of suppliers through restrictive contracts or intense price competition (Raines, Turok and Brown, 2001).

In sum, TNCs, through equity and non-equity links, account for a substantial share of exports in a number of developing countries, and their role spans all sectors. In the *primary* sector, besides minerals and petroleum, TNCs contribute to the development of resource-based exports in such areas as food processing and horticulture. In *manufacturing*, they tend to be the leaders in export-oriented production and marketing, especially for the most dynamic products, for which linking up to marketing and distribution networks is crucial. Their international production systems can take various forms, ranging from production-driven FDI-based systems involving intra-firm trade among affiliates to looser buyer-driven, non-equity-based networks of independent suppliers (as in international subcontracting and contract manufacturing). The increased tradability of services offers new opportunities for exports, the best-known example, so far, being the Indian software industry. But these opportunities also extend to services related to international production systems, such as regional headquarters, procurement centres, shared-services centres and R&D activities.

C. Some winner countries

What role did TNCs play in the success of the winners identified earlier in this chapter that is, countries that had made large strides in improving their export competitiveness and consequently increased their market shares in the world's principal markets?

To answer this question, it is necessary to go beyond an examination of the role of TNCs in the export performance of countries in general. It requires country and company level data that do not exist for the great majority of countries. For a number of significant cases, however, they do exist. It should be emphasized that winner countries come in two categories: those that gain market share in all major markets and those whose gains are concentrated in a specific region. China and Korea are in the first category, while the other cases are in the second. This section provides a window, so to speak, on what is happening in these countries and, in particular, the role of TNCs in their success.[15]

1. China

China's impressive export growth, from $26 billion in 1985 to $249 billion in 2000, was accompanied by a substantial growth in FDI inflows, from $2 billion in 1985 to $41 billion in 2000; the bulk of its inward FDI stock came from other Asian economies in the earlier period. The country's strong export growth was underpinned by a strengthening of its export competitiveness in all markets - reflected in an increase of the country's market share from less than 2 per cent to more than 6 per cent during this period. This increase was even more remarkable in technology-intensive products (table VI.5). The structure of China's exports has also changed: in 1985, exports of primary products and resource-based manufactures represented 49 per cent of all exports, while in 2000 their share had receded to 12 per cent and that of non-resource-based manufactures had jumped to 87 per cent (table VI.5). The share of high-technology exports had jumped from 3 per cent in 1985 to 22 per cent in 2000. All of the country's 10 principal export products in 2000 (accounting for 42 per cent of total exports) were dynamic products in world trade. Three of them were in high-

technology industries (telecom equipment, automatic data-processing machines, and parts and accessories of computers) that accounted for 13 per cent of total exports.

What was the role of TNCs in this export dynamism? Foreign affiliates accounted for less than 9 per cent of total Chinese exports in 1989; in 2001 their share had jumped to 48 per cent[16] (figure VI.7). More than 90 per cent of exports by foreign affiliates were manufactured goods, in which machinery and equipment and "other" manufacturing were prominent.

The share of exports by foreign affiliates in technology-intensive industries rose from 59 per cent in 1996 to 81 per cent in 2000 (figure VI.8). The following are examples of the share of foreign affiliates in China's exports of specific products (tables VI.6 and VI.7):

- Electronic circuits: these experienced rapid growth in exports between 1996 and 2000 (a fivefold increase in export value); foreign affiliates accounted for 91 per cent of their exports in 2000. Intel alone exported products worth over $400 million in 2000. Samsung was also a major exporter of electronic circuits as well as consumer electronics.

- Automatic data-processing machines: foreign affiliates accounted for 85 per cent of

Table VI.5. China's competitiveness in world trade, 1985-2000

Product	Category		1985	1990	1995	2000
I. Market share			**1.6**	**2.8**	**4.8**	**6.1**
1. Primary products[a]			2.4	2.6	2.5	2.3
2. Manufactures based on natural resources[b]			1.1	1.3	2.1	2.7
3. Manufactures not based on natural resources[c]			1.5	3.4	6.1	7.8
Low technology[d]			4.5	9.1	15.5	18.7
Medium technology[e]			0.4	1.4	2.6	3.6
High technology[f]			0.4	1.4	3.6	6.0
4. Others[g]			0.7	0.7	1.4	1.8
II. Export structure			**100.0**	**100.0**	**100.0**	**100.0**
1. Primary products[a]			35.0	14.6	7.0	4.7
2. Manufactures based on natural resources[b]			13.6	8.2	7.4	6.9
3. Manufactures not based on natural resources[c]			50.0	76.2	84.6	87.1
Low technology[d]			39.7	53.6	53.5	47.6
Medium technology[e]			7.7	15.4	16.9	17.3
High technology[f]			2.6	7.3	14.2	22.4
4. Others[g]			1.4	0.8	1.0	1.1
III. 10 Principal exports (SITC Rev.2)	**A[h]**	**B[i]**	**14.2**	**30.2**	**38.5**	**41.5**
894 Baby carriages, toys, games and sporting goods	*	+	2.5	7.3	8.4	8.5
851 Footwear		+	1.2	4.6	7.2	5.5
764 Telecommunications equipment	*	+	0.4	1.9	3.5	4.9
752 Automatic data processing machines, units	*	+	-	0.3	1.6	4.1
845 Outer garments, knitted or crocheted	*	+	3.6	4.4	4.1	3.9
759 Parts and accessories of computers, etc.	*	+	0.1	0.3	1.8	3.6
843 Outer garments, women's and girls', textile fabrics	*	+	3.8	5.5	4.8	3.5
831 Travel goods (trunks, suitcases, etc.)	*	+	1.8	3.6	3.6	2.8
893 Articles n.e.s. of plastic materials (div.58)	*	+	0.3	1.4	2.3	2.3
821 Furniture and parts thereof	*	+	0.5	0.8	1.3	2.3

Source: UNCTAD, based on the United Nations Comtrade database and the TRADECAN computer software of ECLAC.

[a] Contains 45 basic products that are simple to process; includes concentrates.
[b] Contains 65 items: 35 agricultural/forestry groups and 30 others (mainly metals, excluding steel, plus petroleum products, cement, glass, etc.).
[c] Contains 120 groups representing the sum of low, medium and high technology.
[d] Contains 44 items: 20 groups from the textile and garment category, plus 24 others (paper products, glass and steel, jewellery).
[e] Contains 58 items: five groups from the automotive industry, 22 from the processing industry and 31 from the engineering industry.
[f] Contains 18 items: 11 groups from the electronics category, plus another seven (pharmaceutical products, turbines, aircraft, instruments).
[g] Contains nine unclassified groups (mainly from section 9).
[h] Groups belonging (*) to the 50 most dynamic in world imports, 1985-2000.
[i] Groups in which China gained (+) or lost (-) world import market share, 1985-2000.

Figure VI.7. **China: share of foreign affiliates in total exports, 1986-2001**
(Billions of dollars and percentage)
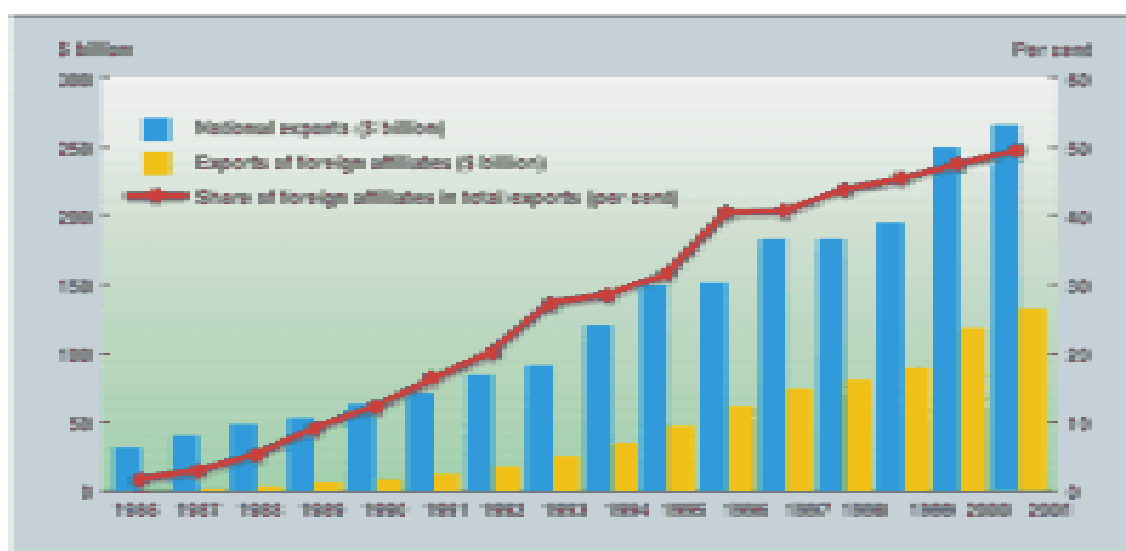
exports in 2000. IBM alone exported $1.5 billion, while Seagate and Epson each exported about $1 billion worth.

- Mobile phones: saw a sixfold increase in exports from China; foreign affiliates accounted for 96 per cent of China's

Figure VI.8. **China: exports of high-technology products and shares of foreign affiliates and State-owned firms, 1996-2000**
(Billions of dollars and percentage)
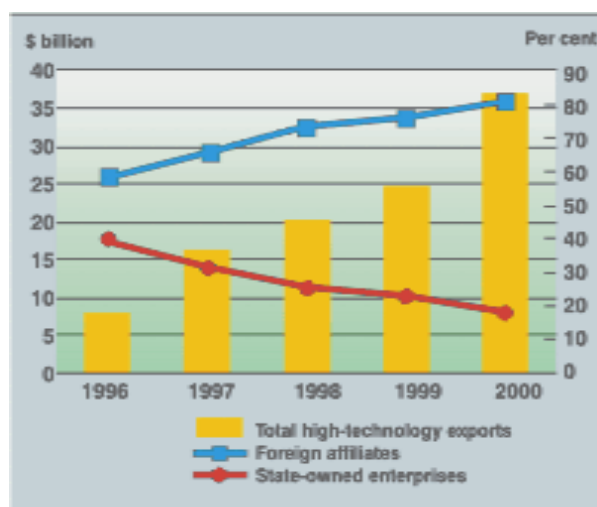
exports in 2000. The affiliates of Motorola, Nokia, Ericsson and Siemens drove this expansion, with Motorola exporting more than $1 billion in 2000. This was against the background of a highly dynamic domestic market.

In contrast, Chinese domestic enterprises predominate in the low-technology sector, especially in the export of toys, travel bags and yarns and fabrics.

Export activity by foreign affiliates in China can be documented at the company level for the country's 100 leading foreign affiliates in 2000 (table VI.6). Exports from these companies alone accounted for 10 per cent of total exports from China. Most of these companies were concentrated in the electronics and telecom industries.

China undoubtedly has the advantage of the size and growth of its domestic market and the abundant availability of surplus labour. Another advantage that China offers are rapidly growing supply networks, i.e. numerous clusters of domestic and foreign firms which can provide a wide range of services and supplies to enable TNCs to perform efficiently, within a single investment location, thereby reducing significantly logistic costs.

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Table VI.6. China: exports by the leading foreign affiliates,[a] 2000
(Millions of dollars and percentage)

Rank	Name of parent firm	Name of affiliates	Home economy	Industry	Value	Percentage of total exports
1	Samsung Electronics 5 affiliates [b]	Dongyuan Samsung Electro-Mechanics; Tianjin Samsung Electro-Mechanics; Samsung Electronics Huizhou; Tianjin Samsung Electronic Monitor; Tianjin Samsung Electronics	Republic of Korea	Electronics	1 491.0	0.53
2	IBM 4 affiliates [b]	Shenzhen Kaifa Technology; Shenzhen Hailiang Storage Equipment; Great Wall International Information Products (Shenzhen); IBM Shenzhen Technology Co., Ltd.	United States	Electronics	1 457.8	0.52
3	Nokia Beijin Nokia Mobile Telecommunications 2 affiliates [b]	Dongguan Nokia Mobile Phones	Finland	Telecommunications	1 143.1	0.41
4	Motorola Electronics	Motorola (China) Electronics	United States	Electronics	1 122.5	0.40
5	Seagate Technology 2 affiliates [b]	Seagate Technology International Wuxi; Seagate Technology (Shenzhen)	United States	Electronics	1 079.2	0.39
6	Seiko Epson 2 affiliates [b]	Epson Engineering (Shenzhen); Suzhou Epson Crystal Parts & Components	Japan	Electronics	959.5	0.34
7	Philips Electronics 2 affiliates [b]	Philips Key Module (Shanghai); Philips Consumer Electronics Co.of Suzhou	Netherlands	Electronics	611.8	0.22
8	AOC International	Top Victory Electronics (Fujian)	Taiwan Province of China	Electronics	608.8	0.22
9	CLP Holdings	Guangdong Nuclear Power Joint Venture	Hong Kong, China	Electric services	582.2	0.21
10	Sanyo Electric 2 affiliates [b]	Shenzhen Sanyo Huaqiang OpticalTechnology; Sanyo Electric (Shekou)	Japan	..	558.9	0.20
11	..	Shunde Shunda Computer	..	..	547.0	0.20
12	..	Dalian Electronics Products (S.Z)	..	..	541.2	0.19
13	Flextronics International 2 affiliates [b]	Flextronics Computer (Shenzhen); Flextronics Computer (Zuhai)	Singapore	Electronics	523.7	0.19
14	LG Electronics	LG Electronics Products (S.Z.)	Rep. of Korea	Electronics	519.8	0.19
15	..	Xinmao Technology (Shenzhen)	..	Electronics	518.3	0.19
16	Sharp 2 affiliates [b]	Sharp Office Equipments (Changshu); Wuxi Sharp Electronic Components	Japan	Electronics	509.9	0.18
17	Uniden	Uniden Electronics Shenzhen	Japan	Electronics	504.7	0.18
18	Canon	Canon Zhuhai	Japan	Photographic equipment	449.8	0.16
19	Intel	Intel Technology (Shenzhen)	United States	Electronics	404.8	0.14
20	..	Shenzhen Shungang Storage Enterprise Shareholding	..	..	364.8	0.13
21	Mitsumi Electric 2 affiliates [b]	Zhuhai Mitsumi Electric	Japan	Electronics	351.1	0.13
22	Sony	Shanghai Suoguang Electronics	Japan	..	332.6	0.12
23	..	Shanghai Ruixin Industry	..	..	326.8	0.12
24	..	Amertek (S.Z.) Computer	..	Computer peripherals	323.3	0.12
25	Struers	Suzhou Logitech Electronic	Denmark	Computer peripherals	320.2	0.11
26	Acer Suzhou	Acer Peripherals; Renbao Computer Industry (China)	Taiwan Province of China	Electronics	303.6	0.11
27	..	Qingpu Hyundai Electronics (Shanghai)	..	..	300.0	0.11
28	Hyundai	Weiguan Technology (Shenzhen)	Republic of Korea	Electronics	283.2	0.11
29	..	Siamen Swire Aircraft Engineering	Taiwan Province of China	..	..	..
30	..	Foshan Premier Camera	..	..	..	..
31	Premier Image Technology	Beijin Ericsson Mobile Telecommunications	Taiwan Province of China	Photographic equipment	266.3	0.10
32	Ericsson	Xiamen Tsann Kuen	Sweden	Telecommunications	263.7	0.10
33	Tsan Kuen Enterprise	Shanghai AT&T Telecommunication Equipment	Taiwan Province of China	Electrical apparatus	249.9	0.09
34	AT&T	Yantian International Container Wharf	United States	Telecommunications	243.9	0.09
35	Cheung Kong Holding	Fujin Precision Industry (Shenzhen)	Hong Kong, China	Port development	237.6	0.09
36	..	Shanghai Huahong NEC Electronics	..	..	237.2	0.09
37	NEC	Minebea Electronics & Hi-Tech Components	Japan	Electronics	224.6	0.08
38	Minebea	Shenzhen Nanfang Zhongji Container Manufacturing	Japan	Electronics	211.3	0.08
39	..	Dongguan Fuan Textiles Ltd.	..	..	207.0	0.08
40	Fountain Set Holdings	Dongguan Pulse Electronical	Hong Kong, China	Textile and knitting	206.9	0.07
41	..		..	Electronics	202.1	0.07

Table VI.6. China: exports by the leading foreign affiliates,[a] 2000

(Millions of dollars and percentage)

Rank	Name of parent firm	Name of affiliates	Home economy	Industry	Value	Percentage of total exports
42	..	Shanghai Da Ba Industry	..	..	176.9	0.06
43	..	Xiamen Jinwong Enterprise	..	..	176.0	0.06
44	Thomson Multimedia	Thomson (Dongguan)	France	Electronics	175.3	0.06
45	..	NPG Monitor (Dong Guan)	..	..	174.0	0.06
46	..	Shanghai Xinkang Electronics	United States	Electronics	173.2	0.06
47	..	Richon Asia Industry (Shenzhen)	..	..	172.3	0.06
48	..	Nidec (Daliang) Ltd.	..	..	171.8	0.06
49	Matsuoka	Matsuoka Group	Japan	Garment and printing	167.6	0.06
50	..	Dangong Fanshan Monitor	..	..	164.3	0.06
51	Matsushita Electronic Industry	China Hualu Matsushita Video	Japan	Electronics	162.5	0.06
52	..	Guangzhou Dongbaoo (Pan Ao) Jewelery	..	..	156.7	0.06
53	Victor Co. of Japan	JVC Shanghai Elecronics	Japan	Electrical equipment	151.9	0.05
54	..	Shenzhen Royece Liquid Warehouse	..	..	151.9	0.05
55	Shinwa	Shinwa Industries (China) Ltd.	Japan	Electrical equipment	150.5	0.05
56	Toshiba	Dalian Toshiba Television Set	Japan	Radio and TV receiving sets	147.2	0.05
57	Siemens	Shanghai Siemens Mobile Communication	Germany	Telecommunications	143.5	0.05
58	Hitachi	Hitachi Semiconductor (Suzhou)	Japan	Electronics	142.4	0.05
59	..	Xinui Zhongji Container	..	..	142.4	0.05
60	..	Shenzhen Xianjin Micro-Electronic Technology	..	..	142.3	0.05
61	Olympus Optical	Olympus (Shenzhen) Industrial	Japan	Photographic equipment	141.5	0.05
62	Golden Field International Holdings	Golden Field United Textiles Ltd.	Hong Kong, China	Textile	136.6	0.05
63	Nam Tai Electronics	Nam Tai Electronic (Shenzhen)	Virgin Islands, United Kingdom	Electronics	136.1	0.05
64	..	Qingtao Shoes	..	..	136.0	0.05
65	..	Panyu Chuang Xin Shoes	..	..	135.8	0.05
66	..	Shanghai Zhongji Freezer	..	..	135.2	0.05
67	..	Shanghai Far East Container	..	..	134.8	0.05
68	Whirlpool	Shunde Whirlpool SMC Microwave Products	United States	Electrical apparatus	134.4	0.05
69	..	Shenzhen Sayifa Microelectronics	..	..	131.3	0.05
70	Mitsui Mitsubishi Stone Integrated Circuits		Japan	Electronics	129.3	0.05
71	..	Conghua Donglin Diamond	..	..	128.7	0.05
72	Solectron	Solectron (Suzhou) Technology	United States	Printed circuit board	128.3	0.05
73	Makita Makita (China)		Japan	Electrical apparatus	126.8	0.05
74	..	Shanghai Jindao Container	..	..	126.4	0.05
75	..	Shanghai Zhenhua Ports Machinery	..	..	126.1	0.05
76	..	Nantong CIMC-Smooth Sail Container	..	..	124.9	0.04
77	..	Super-Micro Semiconductor (Suzhou)	..	..	124.8	0.04
78	Umax Data System	Umax Computer (Suzhou)	Taiwan Province of China	Electronics	124	0.04
79	Alpine Electronics	Dalian Alpine Electric	Japan	Electronics	121.5	0.04
80	General Electric Company	GE America Plastic China Ltd.	United States	Plastics	119.0	0.04
81	..	Zhongshan Dongming Audio-Video Electronics	..	..	119.0	0.04
82	Legend Computers LLC	Huiyang Legend Computer	Oman	Electronics	117.9	0.04
83	Mabuchi Motor	Mabuchi Motor Dalian Ltd.	Japan	Automotive	117.0	0.04
84	Fujitsu	Fujitsu (Shangai)	Japan	Electronics	116.5	0.04
85	..	Shanghai Xinge Honfrrous Metal	..	..	116.5	0.04
Total above					26 500.4	9.48
Total exports of China					279 562.0	100.00

Source: UNCTAD, based on China, MOFTEC, 2001a and *Who Owns Whom CD-ROM 2002* (Dun and Bradstreet).

a Foreign affiliates as defined and identified by MOFTEC. All affiliates that are owned by the same parent firm are consolidated.

b Consolidated list of affiliates owned by the same parent.

There is some evidence to suggest that local content is deepening and industrial upgrading is taking place (China, MOFTEC, 2001b). Local component suppliers in China are growing in number, density and capability, particularly in industrial clusters along the coastal areas (idem). Thus, many local authorities and entrepreneurs, particularly along the coastal areas (e.g. Guangdong, Fujian, Jiangru and Zejiang Provinces) have made special efforts to build clusters of suppliers working with TNC in a specific industry. The share of local procurement in total purchases by Japanese affiliates in the manufacturing sector increased, from 35 per cent in 1993 to 42 per cent in 1999 (Japan, MITI, 1995; Japan, METI, 2002).

The share of high-technology industries in total FDI has increased rapidly inducing an industrial upgrading of the country (China, MOFTEC, 1997, 1999, 2000, 2001b; Zhang et al., 1997; Xian and Zhang, 1997). High-technology TNCs have set up over 100 R&D centres, mostly in Shanghai and Beijing (*WIR01*, p. 26). For example, Motorola has established 18 R&D centres in the area of electronics and Microsoft has established three. The availability of a large pool of hard and soft R&D infrastructure (particularly well-qualified researchers) has attracted R&D centres. These R&D centres have played a significant role in enhancing the innovative capability of foreign affliates and upgrading their activities (Hu, 2002). At the same time, local firms are becoming more export-oriented and are moving up the technology ladder. In fact, a large number of high-tecnology export-oriented foreign affiliates are joint ventures with local firms, having in this manner a sort of "crowding in" effect.

Since the 1980s, China's FDI policies have been quite proactive, both at the central level and at the level of provinces and cities. The main elements comprise a set of industrial guidelines (with three distinct categories of industries in which FDI is encouraged, restricted or prohibited), incentives (particularly targeting high-technology and export-intensive industries) and economic and technology development zones, which target mainly export-oriented manufacturing TNCs, particulary in high-technology industries. China now has 49 national zones, complemented by literally hundreds of EPZs, development zones, industrial parks, and science and technology zones at the sub-national level. They are established to attract not only foreign investors but also domestic companies.

Table VI.7. China: shares of domestic companies and foreign affiliates in the export of selected goods, 1996 and 2000[a]
(Millions of dollars and percentage)

Item	Total		Domestic companies		Foreign affiliates	
	1996	2000	1996	2000	1996	2000
Yarns and fabrics						
Value	4 547	5 900	3 441	4 223	1 107	1 677
Per cent	100	100	76	72	24	28
Toys						
Value	5 473	8 293	2 979	4 594	2 494	3 699
Per cent	100	100	54	55	46	45
Travel bags						
Value	2 653	3 767	1 461	2 361	1 192	1 406
Per cent	100	100	55	63	45	37
Electronic circuits						
Value	996	4 105	216	288	781	3 817
Per cent	100	100	22	7	78	93
Data processing, office machines and related products						
Value	5 391	16 547	940	2 551	4 451	13 996
Per cent	100	100	17	15	83	85
Mobile phones (transmitter-receiver apparatus)						
Value	487	2 931	37	108	450	2 823
Per cent	100	100	7	4	92	96

Source: UNCTAD, based on China Customs General Administration, 2002.

[a] This database consists of the 200 largest companies and the 500 principal exports.

2. Costa Rica

Between 1985 and 2000, Costa Rica's exports grew five-fold, from $1.1 billion in 1985 to $5.5 billion in 2000. FDI inflows have followed the same trend, rising almost sixfold from $70 million to $409 million in 2000. Along with this growth in exports, an upgrading in the composition of exports has also taken place. In the case of Costa Rica's exports to North America, its main market - where its market share has doubled - primary products accounted for 65 per cent of its exports in 1985, but in 2000 their share had decreased to 24 per cent (table VI.8). On the other hand, the share of non-resource-based manufactures rose from 27 per cent to 68 per cent, with a striking gain in high-technology exports, which jumped from 1 per cent to 35 per cent. Of the 10 principal export product groups, accounting for more than three-quarters of the total, two high-technology exports (parts and accessories for computers, and semiconductors) accounted for one-third of the total exports. Costa Rica gained market share in nine of the top ten export product groups in the North American market, six of which are dynamic products.

FDI in general, and a major investment by Intel in particular, played a central role in the improvement of Costa Rica's export competitiveness. About two-thirds of the present FDI stock was accumulated during the 1990s. About two-thirds of the inflows went into the manufacturing sector and about two-thirds came from the United States. The 1998-1999 peak in inward FDI had much to do with the $400-500 million investment project undertaken by Intel to establish a

Table VI.8. **Costa Rica's competitiveness in the North American market, 1985-2000**

Product	Category		1985	1990	1995	2000
I. Market share			**0.2**	**0.2**	**0.2**	**0.3**
1. Primary products[a]			0.7	0.7	0.8	0.7
2. Manufactures based on natural resources[b]			0.1	0.1	0.1	0.1
3. Manufactures not based on natural resources[c]			0.1	0.1	0.2	0.3
Low technology[d]			0.2	0.5	0.6	0.4
Medium technology[e]			0.0	0.0	0.1	0.1
High technology[f]			0.0	0.0	0.0	0.4
4. Others[g]			0.0	0.1	0.1	0.2
II. Export structure			**100.0**	**100.0**	**100.0**	**100.0**
1. Primary products[a]			64.5	45.9	38.4	24.3
2. Manufactures based on natural resources[b]			7.9	5.4	5.9	4.8
3. Manufactures not based on natural resources[c]			26.7	47.2	53.5	68.1
Low technology[d]			20.2	40.6	43.3	25.0
Medium technology[e]			5.3	5.2	7.9	8.6
High technology[f]			1.2	1.4	2.3	34.5
4. Others[g]			0.9	1.6	2.3	2.8
III. 10 Principal exports (SITC Rev.2)	**A[h]**	**B[i]**	**62.2**	**64.5**	**62.6**	**75.9**
759 Parts and accessories for computers, etc.	*	+	0.2	0.0	0.2	29.0
057 Fruit and nuts (not oil nuts) fresh or dried		+	33.9	27.2	24.1	15.5
846 Under garments, knitted or crocheted	*	+	5.0	9.8	12.1	8.1
842 Outer garments, men's and boys' of textile fabrics		+	3.7	9.6	10.9	5.7
776 Thermionic valves and other semiconductors, n.e.s.	*	+	0.3	0.1	0.1	3.8
071 Coffee and coffee substitutes		+	12.5	6.0	4.1	3.6
872 Medical instruments and appliances, n.e.s.	*	+	-	0.5	1.9	3.4
931 Special transactions and commodities not class.	*	+	0.8	1.3	1.7	2.6
845 Outer garments, other articles, knitted/crocheted	*	+	0.5	3.1	4.0	2.3
843 Outer garments, women's, and girls' of textile fab.		-	5.4	6.8	3.5	1.9

Source: UNCTAD, based on the United Nations' Comtrade database and the TRADECAN computer software of ECLAC.

[a] Contains 45 basic products that are simple to process; includes concentrates.
[b] Contains 65 items: 35 agricultural/forestry groups and 30 others (mainly metals, excluding steel, plus petroleum products, cement, glass, etc.).
[c] Contains 120 groups representing the sum of low, medium and high technology.
[d] Contains 44 items: 20 groups from the textile and garment category, plus 24 others (paper products, glass and steel, jewellery).
[e] Contains 58 items: five groups from the automotive industry, 22 from the processing industry and 31 from the engineering industry.
[f] Contains 18 items: 11 groups from the electronics category, plus another seven (pharmaceutical products, turbines, aircraft, instruments).
[g] Contains nine unclassified groups (mainly from section 9).
[h] Groups belonging (*) to the 50 most dynamic in North American imports, 1985-2000.
[i] Groups in which Costa Rica gained (+) or lost (-) North American import market share, 1985-2000.

new assembly and testing facility for microprocessors. Intel's plant in Costa Rica was the 28th largest manufacturing company in Latin America by sales in 1999, and the region's 27th biggest exporter in 2000.

Costa Rica's principal export products are parts and accessories for computers, accounting for 25 per cent of exports in 2000; they originate mainly from one foreign affiliate, that of Intel (table VI.9). Although Intel dominates Costa Rican exports, these are becoming increasingly diverse, with restructuring into other dynamic products such as medical devices (even though apparel and primary products remain important). Foreign affiliates account for a significant proportion of these new exports. Two foreign affiliates (Abbott and Baxter) account for virtually all Costa Rican exports of medical devices (representing 3 per cent of total exports). TNCs such as Sara Lee and Wrangler are among Costa Rica's principal exporters of garments, and Standard Fruit is the second largest single exporter of fruit. Overall, the country's top 20 foreign affiliates accounted for nearly half of the country's total exports in 2000 (table VI.9).

There is no doubt that an active Government has been a central factor in Costa Rica's success. Efforts to upgrade the level of education, improve infrastructure, provide a friendly investment environment, and encourage the widespread use of English are combined with deliberate FDI targeting strategies. The country's IPA made careful efforts to channel FDI into electronics in order to restructure the country's comparative advantage away from garments (Mortimore and Zamora, 1998) and primary products (Costa Rica, Ministry of Foreign Trade, 1997). The results of Costa Rica's targeting have spread beyond the initial areas (electronics and medical devices) to the services sector; the latest success was the decision by Procter & Gamble to site its global business centre for the Americas there as of 2001 (González, 2002). The IPA has thus put Costa Rica on a more dynamic development trajectory, through its active role in shaping the country's development policy (Rodríguez-Clare, 2001).

Despite this success in attracting export-oriented FDI, however, there is as yet little evidence of substantial linkages with local enterprises and embedding of the export platforms in the local economy.

Table VI.9. Costa Rica: exports by the 20 leading foreign affiliates, 2000
(Millions of dollars and percentage)

Rank	Name of affiliates	Name of parent firm	Home economy	Industry	Value	Percentage of total exports
1	Componentes Intel Costa Rica	Intel	United States	Electronics	1 676	25.1
2	Standard Fruit Company de Costa Rica	Dole Food	United States	Fresh fruits and vegetables	155	2.3
3	Corp. De Desarrollo Agricola Del Monte	Del Monte Foods	United States	Fruit and tree nuts	138	2.1
4	Abbott Laboratories	Abbott Laboratories	United States	Medical devices	102	1.5
5	Ind Textilera del Este S.A. (Heredia)	Sara Lee	United States	Apparel	94	1.4
6	Sawtek S.A.	Triquint Semiconductor	United States	Electronics	94	1.4
7	Baxter	Baxter International	United States	Medical devices	92	1.4
8	Manufacturera de Cartago S.A	Sara Lee Intimate Apparel	United States	Apparel	76	1.1
9	Wrangler de Costa Rica S.A	V F Northern Europe	United Kingdom	Apparel	62	0.9
10	Merck Sharp & Dohme (I.A.) Corp.	Merck	United States	Pharmaceuticals	61	0.9
11	Babyliss C.R., S.A.	Conair	United States	Electronics	57	0.9
12	Liga Agricola Industrial de La Cana	..	..	Natural resources	50	0.7
13	Coca Cola Interamerican Corporation	Coca-Cola	United States	Bottled and canned soft drinks	45	0.7
14	Conducen, S.A.	Phelps Dodge	United States	Non ferrous wire drawing	43	0.6
15	Terramix	Hultec	United States	Rubber gaskets	42	0.6
16	Warners de Costa Rica, Inc.	Warnaco Group	United States	Apparel	40	0.6
18	Remecinc S.A.	REMEC	United States	Electronics	38	0.6
19	Trimpot Electronicas S.A.	Bourns	United States	Electronics	38	0.6
20	Confecciones H.D. Lee, S.A.	VF	United States	Apparel	36	0.5
	Total above				**2 939**	**44.0**
	Total exports of Costa Rica				**6 682**	**100.0**

Source: UNCTAD, based on Costa Rica, Ministry of Foreign Trade, General Direction of Customs and *Who Owns Whom CD-ROM 2002* (Dun and Bradstreet).

3. Hungary

Hungary's high export performance has been accompanied by a substantial increase in FDI inflows. Exports have more than tripled, from $10 billion in 1990 (the year of the opening up of the economy) to $28 billion in 2000. At the same time, FDI inflows increased more than fivefold, from $311 million in 1990 to $1.6 billion in 2000. Hungary's market share in Western Europe, its principal market, tripled as well (table VI.10). The structure of its exports to that market also changed dramatically: the share of primary products and resource-based manufactures in total exports declined from 60 per cent in 1985 to 14 per cent in 2000, with non-resource-based manufactures increasing to 85 per cent in 2000, from 39

per cent in 1985. The share of high-technology exports rose substantially, from 4 per cent in 1985 to more than 25 per cent in 2000. Medium-technology exports also increased in importance, moving from a share of nearly 13 per cent in 1985 to 45 per cent in 2000. This shift in competitiveness is reflected in the export categories included in the list of the top 10 export products of Hungary. They accounted for half the country's exports. All of them are dynamic in the Western European market and eight are in electronics and the automobile industry.

TNCs have been the main drivers of export growth in Hungary, generating four-fifths of the country's exports in 1999. Affiliates located in EPZs have been particularly dynamic, increasing their exports

Table VI.10. Hungary's competitiveness in the Western European market, 1985-2000

Product	Category		1985	1990	1995	2000
I. Market share			**0.3**	**0.3**	**0.5**	**0.9**
1. Primary products[a]			0.3	0.5	0.4	0.4
2. Manufactures based on natural resources[b]			0.4	0.5	0.5	0.5
3. Manufactures not based on natural resources[c]			0.2	0.3	0.5	1.1
Low technology[d]			0.4	0.5	0.8	0.8
Medium technology[e]			0.1	0.2	0.5	1.3
High technology[f]			0.1	0.1	0.4	1.1
4. Others[g]			0.1	0.2	0.2	0.1
II. Export structure			**100.0**	**100.0**	**100.0**	**100.0**
1. Primary products[a]			26.9	20.8	10.5	4.5
2. Manufactures based on natural resources[b]			32.9	27.1	18.4	9.8
3. Manufactures not based on natural resources[c]			39.2	50.5	70.0	85.1
Low technology[d]			22.6	27.2	25.9	14.9
Medium technology[e]			12.7	18.2	32.6	44.9
High technology[f]			3.9	5.1	11.6	25.2
4. Others[g]			1.0	1.6	1.0	0.6
III. 10 Principal exports (SITC Rev.2)	**A**[h]	**B**[i]	**2.8**	**4.9**	**23.9**	**50.2**
713 Internal combustion piston engines and parts	*	+	0.1	0.1	7.2	12.4
752 Automatic data processing machines, units thereof	*	+	0.1	0.0	1.0	10.1
781 Passenger motor cars (excl. public service type)	*	+	0.0	0.1	1.8	6.6
763 Sound equipment, dictating machines, etc.	*	+	0.0	0.0	1.1	3.4
764 Telecommunications equipment, n.e.s.	*	+	0.2	0.9	2.4	3.4
773 Equipment for distributing electricity	*	+	0.1	1.1	3.7	3.3
784 Parts and accessories, n.e.s. of the motor vehicles	*	+	0.3	0.5	2.0	3.1
759 Parts, n.e.s., of and accessories for 751 and 752	*	+	0.1	0.2	0.9	2.8
778 Electrical machinery and apparatus, n.e.s.	*	+	1.7	1.5	3.1	2.7
761 Television receivers	*	+	0.1	0.5	0.9	2.4

Source: UNCTAD, based on the United Nations' Comtrade database and the TRADECAN computer software of ECLAC.

[a] Contains 45 basic products that are simple to process; includes concentrates.
[b] Contains 65 items: 35 agricultural/forestry groups and 30 others (mainly metals, excluding steel, plus petroleum products, cement, glass, etc.).
[c] Contains 120 groups representing the sum of low, medium and high technology.
[d] Contains 44 items: 20 groups from the textile and garment category, plus 24 others (paper products, glass and steel, jewellery).
[e] Contains 58 items: five groups from the automotive industry, 22 from the processing industry and 31 from the engineering industry.
[f] Contains 18 items: 11 groups from the electronics category, plus another seven (pharmaceutical products, turbines, aircraft, instruments).
[g] Contains nine unclassified groups (mainly from section 9).
[h] In column A: groups belonging (*) to the 50 most dynamic in Western European imports, 1985-2000.
[i] In column B: groups in which Hungary gained (+) or lost (-) Western European import market share, 1985-2000.

steadily between 1996 and 2000, to account for half the exports of foreign affiliates and 45 per cent of the total (annex table A.VI.2). Contract manufacturers also play an important role, especially large ones such as Flextronics (box VI.7).[17]

The top 10 Hungarian exports to *world* markets are produced by TNCs: seven were produced by foreign affiliates only, and the other three partly by foreign affiliates in 1999 (annex table A.VI.3). The leading 50 foreign affiliates (table VI.11) accounted for 45 per cent of the country's total exports in 2000[18]. The industries in which they are active also contain the most dynamic export products. More specifically:

- In the automobile industry, Audi/Volkswagen (with over $3 billion in exports), Opel/GM and Suzuki, as well as parts producers such as Delphi and ZF, are among Hungary's principal exporters.
- In electronics, IBM and Philips each export over $2 billion, followed by GE, Flextronics and Samsung.

Hungary was one of the first economies in transition actively to seek FDI, a policy complemented by an innovative EPZ regime (box VII.12). Its association agreement with the EU granted it preferential access to its main market, particularly for locally assembled products. However, its

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Box VI.7. Flextronics' Industrial Parks in Hungary

Flextronics is the leading contract electronics manufacturer in CEE, with a nearly 40 per cent share of the industry's total investment there (annex table A.VI.4). Four-fifths of its cumulative regional investment of more than $1 billion went to Hungary. Only one other contract manufacturer in electronics, the much smaller Finnish-owned Elcoteq, has large investments in the region (almost 26 per cent) (annex table A.VI.4).

Flextronics has centred its CEE Industrial Park activities in Hungary because of the country's proximity to the West European market, relatively low wages,[a] a good supply of engineers and scientists and an encouraging government policy (Pfaffstaller, 2001). As to the last of these factors, the regulatory framework – including simplified customs regulations, duty-free treatment for imports into EPZs, investment incentives and government support to EPZs – was particularly appreciated by Flextronics, as were local efforts to reduce the hassle costs of doing business through a speedy and transparent approval process managed within the framework of a "one-stop shop" and the simple, quick and cheap purchase of land. Finally, the services of investment promotion authorities in the form of advice and contacts, of local labour offices in recruitment, and of local authorities in providing services to expatriates (e.g. with regard to schooling and housing) also helped tilt the balance towards this location.

Flextronics has designated Hungary as one of its potential centres of excellence for electronics development. The strategy is based on the assumption that a balance between costs and capabilities can be maintained only if, by investing more into capabilities, the location is gradually upgraded to do design work and engage in product development. Recent developments – such as the unsuccessful venture to produce Microsoft's X-Boxes in Hungary (the production of which was abandoned and relocated to China in May 2002) – highlight the need for upgrading from increasingly uncompetitive assembly to more value-added activities. As the development of skills and accession to the EU are expected to lead to higher wages in Hungary, Flextronics is already considering subcontracting sub-assembly work to lower-wage countries not previously selected for investment. In March 2001, it began a pilot project in Beregovo, Ukraine, near the Hungarian border and close to its Nyíregyháza facility in the north-east of Hungary, to assemble circuit boards for that facility. However, more automated jobs, such as contact assembly – the soldering of integrated circuits, diodes and other small components – are not expected to move out of Nyíregyháza to lower-cost locations.

By 2000, Flextronics had become Hungary's sixth most important direct exporter. Of its sales revenue of close to $1 billion, about half came from products exported directly, while the other half was from products provided to other customers that exported the final products.

Source: UNCTAD.

a   Wages for low-skilled factory workers in Hungary are about $2 an hour, as compared to $15 in Austria. They are even lower in neighbouring Ukraine, where workers now assemble circuit boards for as little as 40 cents an hour (Pfaffstaller, 2001).

Table VI.11. Hungary: exports by the 50 leading foreign affiliates, 2000
(Millions of dollars and percentage)

Rank	Name of affiliates	Name of parent firm	Home economy	Industry	Value	Percentage ot total exports	Free zone
1	Audi Hungária Motor Kft.	Volkswagen	Germany	Automotive	3 187	11.2	√
2	IBM Storage Products Kft.	IBM	United States	Electronics	2 240	7.8	√
3	Philips Magyarország[a]	Philips Electronics	Netherlands	Electronics	2 027	7.1	√
4	GE Hungary Rt.	General Electric	United States	Electronics	639	2.2	
5	Opel Magyarország Jármügyártó Kft.	General Motors	United States	Automotive	628	2.2	√
6	Flextronics International Kft.	Flextronics International	Singapore	Electronics	430	1.5	√
7	Alcoa Köfém Kft.	Alcoa	United States	Aluminium	314	1.1	
8	Suzuki Rt.	Suzuki Motor	Japan	Automotive	300	1.1	
9	NABI Rt.	North American Bus Industries	United States	Automotive	249	0.9	
10	Samsung Electronics Magyar Rt.	Samsung Electronics	Rep. of Korea	Electronics	241	0.8	√
11	Electrolux Lehel Hütögépgyár Kft.	Electrolux	Sweden	Machinery	212	0.7	
12	Visteon Hungary Kft.	Visteon	United States	Electronics/ Automotive	187	0.7	
13	Delphi Packard Hungary Kft.	Delphi Automotive Systems	United States	Automotive	169	0.6	√
14	Panrusgáz Magyar-Orosz Gázip.Rt.	Gazprom	Russian Federation	Oil and gas/trading	113	0.4	
15	Egis Gyógyszergyár Rt.	Servier	France	Pharmaceutical	102	0.4	
16	Opel Southeast Europe Kft.	General Motors	United States	Automotive	100	0.4	
17	Chinoin Gyógyszer és Vegyészeti Termékek Gyára Rt.	Sanofi Synthélabo Group	France	Pharmaceutical	99	0.3	
18	Neusiedler-Szolnok Papírgyár Rt.	Anglo American	United Kingdom/ South Africa	Paper	92	0.3	
19	Procter & Gamble Hungary Kkt.	Procter & Gamble	United States	Chemicals	91	0.3	
20	Alcoa Európai Keréktermék Gyártó Kft.	Alcoa	United States	Automotive/tyres	90	0.3	√
21	Biogal Gyógyszergyár Rt.	Teva Pharma	Germany	Pharmaceutical	85	0.3	
22	Taurus Mezögazdasági Abroncs Kft.	Michelin	France	Tyres	77	0.3	
23	ZF Hungária Ipari és Kereskedelmi Kft.	Zeppelin-Stiftung	Germany	Automotive	75	0.3	
24	LuK Savaria Kuplunggyártó Kft.	Luk Lamellen und Kupplungsbau Beteiligungs	Germany	Automotive	70	0.2	√
25	Clarion Hungary Kft.	Clarion	Japan	Automotive	69	0.2	√
26	Dunastyr Polisztirolgyártó Rt.	ECP	Italy	Plastics	62	0.2	
27	Csepeli Fémmü Rt.	CSMV Invest	Austria	Iron and steel	57	0.2	
28	Dunapack Papír és Csomagolóanyag Rt.	W.Hamburger & Mosburger	Austria	Paper	51	0.2	
29	Henkel Magyarország Kft.[a]	Henkel Beiz und Elektropolier- technik	Austria	Chemicals	48	0.2	
30	Taurus Gumiipari Rt.	Michelin	France	Tyres	48	0.2	
31	Unilever Magyarország Kft.	Unilever	Netherlands	Chemicals	47	0.2	
32	Ikarusbus Jármügyártó Rt.	Renault Fiat	France Italy	Automotive	44	0.2	
33	Kodak Kft.a	Eastman Kodak	United States	Machinery	43	0.2	
34	Nestlé Hungária Kft.	Nestlé	Switzerland	Food and beverages	39	0.1	
35	Gabona Rt.	André & Cie	Switzerland	Food and beverages	39	0.1	
36	Temic Hungary Kft.	Continental	Germany	Automotive	38	0.1	
37	Kometa 99 Kft.	Pedrazzini Family	Italy	Food and beverages	31	0.1	
38	DWA Dunaferr–Voest Alpine Hideghengermü Kft.	Voestalpine	Austria	Iron and steel	30	0.1	
39	LG Electronics Magyar Kft.	LG Electronics	Rep. of Korea	Electronics	28	0.1	
40	Michelin Magyarország Kft.	Michelin	France	Tyres	27	0.1	
41	Hungerit Rt.	..	..	Food and beverages	26	0.1	
42	Ericsson Magyarország Kft.	Ericsson	Sweden	Electronics	20	0.1	
43	Duna-Dráva Cement Kft.	Heidelberg Cement	Germany	Building materials	20	0.1	
44	Mátra Cukor Rt.	Eridania Béghin-Say	France	Food and beverages	19	0.1	
45	Nitrogénmüvek Rt.	..	..	Chemicals	17	0.1	
46	Donau Brennstoffkontor Kft.	Baustofimportkontor	Austria	Coal	15	0.1	
47	Aral Hungária Kft.	Aral	Germany	Oil and gas	15	0.1	
48	Nutricia Termelöház Rt.	Royal Numico	Netherlands	Food and beverages	14	0.0	
49	Hungrana Rt.	Tate and Lyle	United Kingdom	Food and beverages	13	0.0	
50	Siemens Nemzeti Vállalatcsoport[a]	Siemens	Germany	Electronics	11	0.0	
	Total above				**12 688**	**44.5**	
	Total free zones above				**9 337**	**32.7**	
	Total exports of Hungary				**28 541**	**100.0**	

Source: UNCTAD, based on Figyelö Top 200 database 2001, http://www.fn.hu/hetilap/cikk.cmt?id=101546, and
Who Owns Whom CD-ROM 2002 (Dun and Bradstreet)

[a]   Consolidated data.

high dependence on foreign affiliates located in EPZs raises the risk that the activities are not deeply embedded. The country's new policy challenge is to improve local capabilities and attract foreign affiliates with higher-value-added functions.

4. Ireland

Ireland doubled its share in the Western European market, with total exports increasing almost eightfold between 1985 and 2000, from $10 billion in 1985 to $76 billion in 2000. FDI inflows rose even faster, from $164 million in 1985 to $24 billion in 2000. This was largely due to the country's upgrading into such dynamic industries as electronics, pharmaceuticals, medical devices and IT-related services, as reflected in the change in the structure of its exports to its main market, Western Europe (table VI.12).

The share of primary products fell from 21 per cent in 1985 to 6 per cent in 2000. The share of low-technology exports also fell from 16 per cent in 1985 to 10 per cent in 2000, while the share of high-technology exports increased from 23 per cent in 1985 to 36 per cent and is now the most important category of exports. The 10 principal products, concentrated in chemicals (including pharmaceuticals), electronics and processed primary products, accounted for two-thirds of total exports. Eight of them are dynamic in Western European imports and Ireland is gaining market share in all of them.

Foreign affiliates accounted for a large share of Irish exports, reaching 90 per cent in 1999. Two-thirds of Ireland's top 100 exporters are foreign affiliates. They are

Table VI.12. Ireland's competitiveness in the Western European market, 1985-2000

Product	Category		1985	1990	1995	2000
I. Market share			**1.0**	**1.1**	**1.4**	**2.1**
1. Primary products[a]			0.9	1.2	1.2	1.1
2. Manufactures based on natural resources[b]			1.0	1.5	2.3	4.2
3. Manufactures not based on natural resources[c]			1.0	1.0	1.3	1.7
Low technology[d]			1.0	1.1	1.3	1.3
Medium technology[e]			0.6	0.6	0.6	0.7
High technology[f]			1.9	1.9	2.6	3.6
4. Others[g]			0.6	0.6	0.4	1.2
II. Export structure			**100.0**	**100.0**	**100.0**	**100.0**
1. Primary products[a]			20.5	15.5	10.5	6.0
2. Manufactures based on natural resources[b]			22.7	24.7	29.1	34.9
3. Manufactures not based on natural resources[c]			55.3	58.2	59.4	56.6
Low technology[d]			16.2	17.1	15.9	9.9
Medium technology[e]			15.9	16.3	13.8	10.5
High technology[f]			23.3	24.9	29.8	36.2
4. Others[g]			1.5	1.5	0.9	2.5
III. 10 Principal exports (SITC Rev.2)	**A**[h]	**B**[i]	**34.9**	**42.6**	**53.2**	**67.6**
514 Nitrogen-function compounds	*	+	0.4	2.1	5.0	16.2
752 Automatic data processing machines, units thereof	*	+	11.0	10.7	13.2	14.8
541 Medicinal and pharmaceutical products	*	+	2.2	3.3	6.3	8.4
515 Organo-inorganic and heterocyclic compounds	*	+	4.0	3.7	5.8	6.4
759 Parts, n.e.s., of and accessories for 751 and 752	*	+	4.8	6.0	3.2	6.3
898 Musical instruments and parts and accessories	*	+	2.0	4.6	6.9	5.3
098 Edible products and preparations, n.e.s.	*	+	2.5	3.9	5.6	3.1
764 Telecommunications equipment, n.e.s.	*	+	1.1	1.6	2.3	3.0
011 Meat and edible meat offals, fresh, chilled or frozen		+	6.1	5.3	4.0	2.1
551 Essential oils, perfume and flavour materials		+	0.9	1.4	0.9	2.0

Source: UNCTAD, based on the United Nations' Comtrade database and the TRADECAN computer software of ECLAC.

[a] Contains 45 basic products that are simple to process; includes concentrates.
[b] Contains 65 items: 35 agricultural/forestry groups and 30 others (mainly metals, excluding steel, plus petroleum products, cement, glass, etc.).
[c] Contains 120 groups representing the sum of low, medium and high technology.
[d] Contains 44 items: 20 groups from the textile and garment category, plus 24 others (paper products, glass and steel, jewellery).
[e] Contains 58 items: five groups from the automotive industry, 22 from the processing industry and 31 from the engineering industry.
[f] Contains 18 items: 11 groups from the electronics category, plus another seven (pharmaceutical products, turbines, aircraft, instruments).
[g] Contains nine unclassified groups (mainly from section 9).
[h] In column A: groups belonging (*) to the 50 most dynamic in Western European imports, 1985-2000.
[i] In column B: groups in which Ireland gained (+) or lost (-) Western European import market share, 1985-2000.

responsible for a good part of electronics exports, with Intel and Dell exporting more than $4 billion each, followed by Gateway, Apple and others (table VI.13). In chemicals, foreign exporters are concentrated in pharmaceuticals, with Janssen and Swords exporting over $1 billion each. In processed primary products, foreign affiliates do not play a role.

Beyond the most dynamic products, the top 55 foreign affiliate exporters – which account for one-third of the country's exports – are notable in computer-related services; Microsoft leads with exports of over $2 billion, followed by Lotus. In medical devices, Baxter is the leader.

Since the 1980s, Ireland has implemented an industrialization strategy that relies on FDI to promote dynamic export products, using various fiscal and financial incentives, and putting most emphasis on the constant upgrading of the level of education. The linchpin in the implementation of this strategy is the Investment and Development Agency, which is endowed with a large budget (euro 164 million for grants, euro 27 million for promotion and administration in 2000 – IDA, 2001b) for this purpose (Ruane, 2001). The country's membership in the EU gives it preferential access to the Western European market, an advantage of particular interest to non-EU investors, especially those from the United States. High levels of education, low labour costs, a business-friendly environment and good infrastructure (especially in IT) are also conducive to attracting FDI. These factors played a role when, in 1990, Intel opened its first production site in Leixlip to service the European market, a decision that gave a strong boost to the country's electronics industry. Intel cited five main reasons why Ireland was chosen as its manufacturing and technology centre in Europe: the availability of large numbers of skilled workers, including engineers and technicians; the low tax rate of 10 per cent; clean water; a good supply of electricity; and business-friendly government policies (IDA website, http://www.idaireland.com, 21 May 2002).

Ireland intends to strengthen its knowledge-based development, with an emphasis on further upgrading of skills and research capabilities as key competitive factors (IDA, 2001a)[18]. FDI is expected to continue

to play an important role in this strategy, which includes deeper embedding of foreign affiliates into the local economy and encouraging the internationalization of their suppliers (*WIR01*). Business parks providing world class business services have been set up in various regions of the country, while the Investment and Development Agency intermediates between institutions of higher learning and foreign affiliates to respond to the needs of technologically advanced industries.

5. Mexico

Between 1985 and 2000, Mexico doubled its market share in North America, which takes about 90 per cent of its exports. Over the period, total exports increased almost sixfold: from $19 billion in 1985 to $166 billion in 2000. Mexico has entered the top league of countries in export competitiveness: by 2000, it had the eleventh largest market share in global exports. It rose from fifth to third most important source of United States imports (after Canada and Japan). FDI inflows increased seven times between 1985 and 2000, from nearly $2 billion in 1985 to $ 15 billion in 2000. The structure of Mexican exports to the North American market also changed significantly between 1985 and 2000. The share of primary products and resource-based manufactures fell from 55 per cent to 16 per cent, while the share of non-resource based manufactured exports rose from 42 per cent to nearly 80 per cent (table VI.14). Medium-technology (40 per cent) and high-technology (25 per cent) products led the way. The top 10 export products, accounting for slightly over half of total exports, are concentrated in the automotive and electronics industries. Seven of the 10 are dynamic in the North American market and Mexico gained market shares in all but one.

TNCs have been critical to Mexico's entry into the major league of exporters. In the automotive industry, the country's success is intimately linked with FDI, especially United States FDI induced by NAFTA (Mortimore, 1998a; Dussel, 1999; ECLAC, 2000). In particular, the restructuring of the United States auto industry led to the expansion of exports by General Motors, Ford and Chrysler from Mexico, followed by their competitors (Volkswagen and Nissan), which turned Mexico into a world-class

Table VI.13. Ireland: exports by the 55 leading foreign affiliates, 1998[a]
(Millions of dollars and percentage)

Rank	Name of affiliates	Name of parent firm	Home economy	Industry	Value	Percentage of total exports
1	Intel Ireland Ltd.	Intel	United States	Electronics	4 804	6.4
2	Dell Products (Europe) BV	Dell Computer	United States	Electronics	4 313	5.8
3	Microsoft Ltd	Microsoft	United States	Computer-related services	2 380	3.2
4	Janssen Pharmaceutical Ltd.	Jonson & Johnson	United States	Pharmaceuticals	1 337	1.8
5	Swords Laboratories	Bristol-Myers Squibb	United States	Pharmaceuticals	1 026	1.4
6	Gateway 2000 Europe	Gateway	United States	Electronics	967	1.3
7	Apple Computer Ltd	Apple Computer	United States	Electronics	892	1.2
8	EMC	EMC	United States	Electronics	744	1.0
9	3Com Technologies	3 Com	United States	Electronics	684	0.9
10	Motorola BV	Motorola	United States	Electronics	506	0.7
11	Lotus Development BV	IBM	United States	Computer-related services	409	0.5
12	Thermo King Europe	Ingersoll-Rand	United States	Electronics	294	0.4
13	Baxter Healthcare SA	Baxter International	United States	Medical appliances	265	0.4
14	Allergan Pharmaceuticals	Allergan	United States	Pharmaceuticals	253	0.3
15	Eli Lilly SA	Lilly, Eli and Company	United States	Pharmaceuticals	245	0.3
16	American Power Conversion Corporation (ACP) BV	American Power Conversion	United States	Electronics	232	0.3
17	NEC Semiconductors Ireland Ltd.	NEC	Japan	Electronics	228	0.3
18	Cabletron Systems	Enterasys Network	United States	Electronics	223	0.3
19	Howmedica International Inc.	Howmedica International	United States	Medical appliances	190	0.3
20	Smithkline Beecham (Manufacturing)	Smithkline Beecham	United Kingdom	Pharmaceuticals	178	0.2
21	Yamanouchi Ireland Co. Ltd.	Yamanouchi Pharmaceutical	Japan	Pharmaceuticals	149	0.2
22	Lufthansa Airmotive Ireland Ltd.	Deutsche Lufthansa	Germany	Aero Engines	135	0.2
23	Molex Ireland Ltd.	Molex	United States	Electronics	126	0.2
24	Loctite (Ireland) Ltd.	Henkel	Germany	Pharmaceuticals	122	0.2
25	Symantec Ltd.	Symantec	United States	Computer-related services	122	0.2
26	Bausch and Lomb Ireland	Bausch & Lomb	United States	Medical appliances	119	0.2
27	Power Products Ltd.	..	..	Electronics	119	0.2
28	Braun Ireland Ltd.	Gillette Company	United States	Medical appliances	116	0.2
29	Procter & Gamble (Manufacturing) Ireland Ltd	Procter & Gamble	United States	Chemicals	113	0.2
30	Fujitsu Microelectronics Ireland Ltd.	Fujitsu	Japan	Electronics	110	0.1
31	Rhône Poulenc Rorer Pharmaceuticals Ltd.	Rhône-Poulenc	France	Pharmaceuticals	109	0.1
32	Metal Processors Ltd.	Calder Holdings	United Kingdom	Metal products	103	0.1
33	Eurologic Systems Group Ltd	Network Appliance	United States	Electronics	101	0.1
34	Celestica Ireland Ltd.	Celestica	Canada	Electronics	94	0.1
35	Bayer Diagnostics Manufacturing Ltd.	Bayer	Germany	Medical appliances	92	0.1
36	Saehan Media Ieland Ltd.	Saehan Industries	Rep. of Korea	Video tapes	92	0.1
37	Verbatim	Mitsubishi Chemical	Japan	Electronics	91	0.1
38	Fondermann and Co. (Ireland) Ltd.	OPSM Protector	Australia	Medical appliances	91	0.1
39	Stafford-Miller (Ireland) Ltd.	Block Drug Company	United States	Medical appliances	89	0.1
40	Roche Ireland Ltd.	Roche Holding	Switzerland	Chemicals	88	0.1
41	Norton (Waterford) Ltd.	Ivax International	United States	Pharmaceuticals	65	0.1
42	Henkel Ireland Ltd.	Henkel	Germany	Chemicals	65	0.1
43	Elan Pharma Ltd.	Capital Group Companies	United States	Pharmaceuticals	64	0.1
44	Tellabs Ltd.	Tellabs	United States	Electronics	64	0.1
45	Jacobs Engineering Inc	Jacobs Engineering Group	United States	Business activities	61	0.1
46	Pulse Electronics Ltd.	Technitrol	United States	Electronics	59	0.1
47	Schering Plough (Bray) Ltd.	Schering-Plough	United States	Pharmaceuticals	58	0.1
48	Sterwin Dungarvan	Sanofi-Synthélabo Group	France	Pharmaceuticals	57	0.1
49	Krups Engineering Ltd.	El. Fi. Elettro Finanziaria	Italy	Electronics	57	0.1
50	General Semiconductor Ireland	Vishay Intertechnology	United States	Electronics	55	0.1
51	Allied Signal Ireland Ltd.	Honeywell International	United States	Diversified	54	0.1
52	Square D.Co. Ireland	Schneider Electric	France	Electronics	52	0.1
53	Mallinckrodt Medical Ltd.	Mallinckrodt Medical	United States	Medical appliances	51	0.1
54	Hollister Plc.	Hollister	United States	Medical appliances	46	0.1
55	Lucent Technologies Ireland Ltd.	Lucent Technologies	United States	Electronics	46	0.1
	Total above				**23 205**	**31.0**
	Total foreign-owned exports [b]				**45 804**	**61.2**
	Total exports of Ireland				**74 878**	**100.0**

Source: UNCTAD, based on IDA, *Export Link*, edition 3, 1999, and *Who Owns Whom CD-ROM 2002* (Dun and Bradstreet).

[a] Does not include primary sector, food and beverages, textiles. Some companies might have been excluded due to data unavailability.
[b] Majority-owned foreign affiliates only.

automotive export platform. The exports of these five firms alone amounted to 27 billion in 2000, representing 17 per cent of Mexico's exports. Other leading exporters are components manufacturing TNCs such as Lear and Visteon – with close to $2 billion in exports, and the industry has been upgraded and strengthened as a result.

In the electronics industry, two sets of TNCs drive exports from Mexico. The first consists of United States computer and telecom manufacturers led by IBM with $10 billion in exports in 2000. The second consists of Asian and European TNCs that launched and later deepened *maquiladora* operations to strengthen their competitiveness in the

United States market and meet NAFTA rules-of-origin requirements for inputs. Leading the latter are Sony, LG and Thomson, each with over $1 billion in exports.

Nearly two-thirds of the country's manufactured exports come from foreign affiliates. The 35 main exporters alone accounted for 30 per cent of all exports in 2000 (table VI.15), led by automotive and electronics firms – precisely those industries with the most dynamic export products.

Local content in assembly operations is generally low. For example, a very small proportion of inputs in the television industry

Table VI.14. Mexico's competitiveness in the North American market, 1985-2000

Product	Category		1985	1990	1995	2000
I. Market share			**4.5**	**5.1**	**7.2**	**9.5**
1. Primary products[a]			13.0	9.5	9.9	10.4
2. Manufactures based on natural resources[b]			3.1	2.8	3.4	3.7
3. Manufactures not based on natural resources[c]			2.9	4.7	7.5	10.6
Low technology[d]			2.1	3.4	5.9	8.8
Medium technology[e]			2.7	5.1	8.7	11.5
High technology[f]			4.7	5.3	7.0	10.6
4. Others[g]			3.5	5.6	6.7	8.0
II. Export structure			**100.0**	**100.0**	**100.0**	**100.0**
1. Primary products[a]			43.7	24.2	14.5	10.7
2. Manufactures based on natural resources[b]			11.3	8.2	6.3	5.1
3. Manufactures not based on natural resources[c]			41.5	62.9	74.9	79.2
Low technology[d]			7.3	11.6	14.0	15.4
Medium technology[e]			21.8	34.3	40.9	39.4
High technology[f]			12.5	17.1	20.3	25.1
4. Others[g]			3.4	4.6	4.0	4.3
III. 10 Principal exports (SITC Rev.2)	**A**[h]	**B**[i]	**49.6**	**47.8**	**48.9**	**51.4**
781 Passenger motor cars (excl. public service type)	*	+	1.0	7.0	10.5	11.0
333 Petroleum oils, crude, also from bituminous min.		-	31.5	14.5	8.7	7.4
764 Telecommunications equipment, n.e.s.	*	+	4.4	3.6	4.1	6.0
752 Automatic data processing machines, units	*	+	0.0	1.7	2.4	4.8
773 Equipment for distributing electricity	*	+	3.2	5.4	5.5	4.5
931 Special transactions and commodities not class.	*	+	2.8	4.2	3.6	4.1
784 Parts and accessories, n.e.s. of the motor vehicles	*	+	3.2	4.9	4.3	3.7
761 Television receivers		+	0.7	3.0	3.9	3.6
782 Motor vehicles for the transport of goods		+	0.7	0.6	3.0	3.6
772 Elec.apparatus for making/breaking elec. circuits	*	+	2.0	3.0	2.9	2.7

Source: UNCTAD, based on the United Nations' Comtrade database and the TRADECAN computer software of ECLAC.

[a] Contains 45 basic products that are simple to process; includes concentrates.
[b] Contains 65 items: 35 agricultural/forestry groups and 30 others (mainly metals, excluding steel, plus petroleum products, cement, glass, etc.).
[c] Contains 120 groups representing the sum of low, medium and high technology.
[d] Contains 44 items: 20 groups from the textile and garment category, plus 24 others (paper products, glass and steel, jewellery).
[e] Contains 58 items: five groups from the automotive industry, 22 from the processing industry and 31 from the engineering industry.
[f] Contains 18 items: 11 groups from the electronics category, plus another seven (pharmaceutical products, turbines, aircraft, instruments).
[g] Contains nine unclassified groups (mainly from section 9).
[h] Groups belonging (*) to the 50 most dynamic in North American imports, 1985-2000.
[i] Groups in which Mexico gained (+) or lost (-) North American import market share, 1985-2000.

(3 per cent) is supplied by locally-owned firms (*WIR01*, box IV.3), although, in the automobile industry, local content is higher. Only a few TNCs have set up design and development facilities in Mexico. Deepening of TNCs' roots in the local economy is a strategic priority for Mexican competitiveness, and requires considerable investment in enhancing local skills, suppliers and institutions.

Mexico's success with export-oriented FDI began with utilizing the United States production-sharing mechanism in association with the Mexican *maquiladora* scheme (see chapter VII). In the 1990s, the country negotiated 32 free trade and investment agreements with its principal trading partners,

of which NAFTA is the most important. An agreement with the EU entered into force in 2001.

6. Republic of Korea

Between 1985 and 2000, the exports of the Republic of Korea rose sixfold, from $30 billion in 1985 to $172 billion in 2000. FDI inflows rose from $200 million in 1985 to $9 billion in 2000. The country is third on the list of overall winners, and fourth on that of high-technology manufactures and resource-based manufactures (table VI.2). Its overall market share increased from 1.5 to 2.5 during the period 1985-2000 (table VI.16), with export success based largely

Table VI.15. Mexico: exports by the 35 leading foreign affiliates, 2000
(Millions of dollars and percentage)

Rank	Name of affiliates	Name of parent firm	Home country	Industry	Value	Percentage of total exports
1	IBM México	IBM	United States	Electronics	9 630	5.3
2	Daimler Chrysler Mexico	DaimlerChrysler	Germany	Automotive	6 941	3.8
3	General Motors de Mexico	General Motors	United States	Automotive	6 732	3.7
4	Volkswagen Mexico	Volkswagen	Germany	Automotive	5 182	2.9
5	Ford Mexico	Ford Motor	United States	Automotive	3 471	1.9
6	Nissan Mexico	Nissan Motor	Japan	Automotive	2 720	1.5
7	Lear Corporation Mexico	Lear	United States	Automotive	1 878	1.0
8	Visteon Mexico	Visteon	United States	Automotive	1 676	0.9
9	Panamerican Beverage Inc	Coca-Cola	United States	Beverages	1 624	0.9
10	Sony Mexico	Sony	Japan	Electronics	1 621	0.9
11	General Electric Mexico	General Electric	United States	Electrical apparatus	1 157	0.6
12	Alcoa	Alcoa	United States	Metals	1 070	0.6
13	Thomson	Thomson Industries	United States	Electronics	1 037	0.6
14	LG Electronics Mexico	LG Electronics	Rep. of Korea	Electronics	1 037	0.6
15	Sanyo Manufacturing Mexico	Sanyo Electric	Japan	Electronics	837	0.5
16	Grupo Kodak Mexico	Eastman Kodak	United States	Photographic	739	0.4
17	Grupo Modelo	Anheuser-Busch	United States	Beverages	694	0.4
18	Kemet de Mexico	Kemet	United States	Electronics	692	0.4
19	Favesa	Lear	United States	Automotive	684	0.4
20	Samsung Mexico	Samsung Electronics	Rep. of Korea	Electronics	678	0.4
21	United Technologies Mexico	United Technologies	United States	Automotive	655	0.4
22	SIA Electrónica de Baja California	Sanyo Electric	Japan	Electronics	622	0.3
23	Industria John Deere	John Deere	Australia	Machinery	449	0.2
24	Mabe	General Electric	United States	Machinery	431	0.2
25	Siemens	Siemens	Germany	Electrical machines	403	0.2
26	Carplastic	Visteon	United States	Automotive	381	0.2
27	Black & Decker Mexico	Black & Decker	United States	Tools	351	0.2
28	Xerox	Xerox	United States	Office machines	295	0.2
29	BASF Mexico	BASF	Germany	Chemicals	270	0.1
30	DuPont Mexico	Dupont, E.I. De Nemours	United States	Chemicals	251	0.1
31	Electrónica Clarion	Clarion	Japan	Electronics	236	0.1
32	Hewlett-Packard Mexico	Hewlett-Packard	United States	Electronics	228	0.1
33	Mexinox	Mexinox United States	United States	Metals	208	0.1
34	Procter & Gamble	Procter & Gamble	United States	Chemical	152	0.1
35	Nestlé Mexico	Nestlé	Switzerland	Food	122	0.1
	Total above				**55 154**	**30.6**
	Total exports of Mexico				**180 392**	**100.0**

Source: UNCTAD, based on United Nations-ECLAC, Information Center of the Unit on Investment and Corporate Strategies, and *Who Owns Whom CD-ROM 2002* (Dun and Bradstreet).

on high- and medium-technology manufactures: exports rose from 14 per cent to 38 per cent of total exports for high-technology manufactures and from 22 per cent to 29 per cent for medium-technology products. On top of that success, the Republic of Korea improved its market share in manufactures based on natural resources. Five high-technology exports – semiconductors, computers and parts and accessories, telecom equipment, and electrical machinery and apparatus – alone accounted for over one-third of all exports. Passenger motor cars represented another significant export item. The country gained market share in all 10 of the principal export products, seven of which are being dynamic in world trade.

The Republic of Korea is distinct from the other winner countries covered in this section because, on the spectrum of linkages with TNCs, it has relied much less on FDI to achieve that outcome. Its export gains have come mainly from large national conglomerates, the *chaebols*,[19] often through low-equity or non-equity relationships with TNCs, especially with regard to their main export items, semiconductors, electronics and automobiles (Kwon, 2001; Amsden, 1989). Original equipment manufacturing was an important stepping stone to that success. In the space of 10 years, the country leapfrogged into the semiconductor industry to advance from being a mere assembler

Table VI.16. **The Republic of Korea's competitiveness in the world market, 1985-2000**

Product	Category		1985	1990	1995	2000
I. Market shares			**1.5**	**1.9**	**2.2**	**2.5**
1. Primary products[a]			0.3	0.5	0.3	0.4
2. Manufactures based on natural resources[b]			0.7	0.8	1.2	2.0
3. Manufactures not based on natural resources[c]			2.3	2.6	2.9	3.2
Low technology[d]			5.0	4.7	3.0	2.8
Medium technology[e]			1.1	1.6	2.2	2.5
High technology[f]			1.8	2.5	3.8	4.2
4. Others[g]			0.5	0.7	1.4	1.2
II. Export structure			**100.0**	**100.0**	**100.0**	**100.0**
1. Primary products[a]			4.8	3.2	1.9	1.7
2. Manufactures based on natural resources[b]			9.3	7.4	9.1	12.0
3. Manufactures not based on natural resources[c]			84.7	88.0	86.7	84.4
Low technology[d]			48.7	41.7	22.5	16.9
Medium technology[e]			21.7	25.9	31.3	29.2
High technology[f]			14.4	20.5	32.9	38.4
4. Others[g]			1.1	1.3	2.2	1.8
III. 10 Principal exports (SITC Rev.2)	A[h]	B[i]	**21.6**	**28.0**	**47.0**	**54.3**
776 Thermionic valves and tubes and other semiconductors, n.e.s.	*	+	4.8	7.3	16.7	16.4
752 Automatic data processing machines, units thereof	*	+	0.9	3.4	3.4	6.8
781 Passenger motor cars (excl. public service type)	*	+	1.4	3.1	5.1	6.8
764 Telecommunications equipment, n.e.s.	*	+	3.2	3.4	3.8	6.6
334 Petroleum products, refined		+	2.1	0.5	1.8	4.3
759 Parts, n.e.s., of and accessories for 751 and 752	*	+	0.7	1.1	3.4	3.7
583 Polymerization and copolymerization products	*	+	0.7	1.2	2.9	3.1
653 Fabrics, woven, of man-made fibers		+	4.0	4.4	5.0	2.5
674 Universals, plates and sheets, of iron or steel		+	2.7	2.3	2.3	2.5
778 Electrical machinery and apparatus, n.e.s.	*	+	1.2	1.3	2.4	1.7

Source: UNCTAD, based on the United Nations' Comtrade database and the TRADECAN computer software of ECLAC.

[a]   Contains 45 basic products that are simple to process, includes concentrates.
[b]   Contains 65 items: 35 agricultural/forestry groups and 30 others (mainly metals, excluding steel, plus petroleum products, cement, glass, etc.).
[c]   Contains 120 groups representing the sum of low, medium and high technology.
[d]   Contains 44 items: 20 groups from the textile and garment category, plus 24 others (paper products, glass and steel, jewellery).
[e]   Contains 58 items: five groups from the automotive industry, 22 from the processing industry and 31 from the engineering industry.
[f]   Contains 18 items: 11 groups from the electronics category, plus another seven (pharmaceutical products, turbines, aircraft, optical and measuring instruments).
[g]   Contains nine unclassified groups (mainly from section 9).
[h]   Groups belonging (*) to the 50 most dynamic in world imports, 1985-2000.
[i]   Groups in which the Republic of Korea gained (+) or lost (-) world market share, 1985-2000.

of discrete devices under contract to TNCs to become a major player in its own right: the second largest memory chip and the third largest semiconductor producer in the world. For the more mature and simpler technologies, reverse engineering was used, complemented by original equipment manufacturing arrangements. Such arrangements accounted for virtually all electronics exports early on, but by 1990 their share had fallen to 70-80 per cent (60 per cent for the *chaebols*). For example, Samsung had reduced that share to about 40 per cent of its total exports by 1994 (Cyhn, 2002). Hyundai's experience, first with an Overseas Assembly Agreement with Ford, then with a low equity arrangement with Mitsubishi, followed by a host of licensing agreements with major automobile TNCs, allowed it to acquire the appropriate technology to design and develop its own model: the Pony. As early as 1975, this export model had achieved 90 per cent local content. Thus, Hyundai moved from the assembly of foreign models, to the assembly of an indigenous model with foreign licences to be able, finally, to manufacture a completely indigenous model. Overall, 40 per cent of the total exports of the Republic of Korea were estimated to involve original-equipment-manufacture arrangements in 1985, but over time that factor became increasingly less important as the Korean conglomerates developed their own brands.

In parallel with the rise of the *chaebols*, outward FDI accelerated during the 1990s, rising from an annual average of less than $1 billion in the period 1988-1993 to $3 billion in the period 1994-1997.[21] Over half went into manufacturing operations while trade-supporting FDI accounted for slightly less than one-fifth in 2001. The Korean firms' principal motives for establishing their own international production systems were the desire to gain cost advantages by relocating industries, to cope with trade barriers, to gain access to new markets and high technology and to gain competitiveness over domestic rivals. Overall, the Republic of Korea remains one of the few examples of a developing country that has become an export winner mainly by way of low-equity or non-equity relationships with TNCs, in combination with strong national policies promoting domestic companies, which

eventually, became TNCs in their own right. The fact that Samsung is one of the principal exporters to China is in itself quite revealing.

But the balance between equity and non-equity forms is changing. Due to the economic crisis of 1997 and the fact that Korean firms were experiencing increasing difficulties in accessing foreign technology led the Republic of Korea to liberalize its FDI policy. Inflows grew substantially in the late 1990s, from $2 billion in 1996 to $9 billion in 2000, before falling back to $3 billion in 2001. As a consequence, the share of foreign affiliates in the country's total exports has risen. The five foreign companies found in the list of the principal exporters alone accounted for $9 billion of the $92 billion exported by the top 27 in 2001 (table VI.17). Still, the national conglomerates drive the bulk of Korea's exports.

The example of the Republic of Korea shows that substantial export gains in manufacturing can be made without equity links to TNCs. One of the major benefits of the country's national development strategy has, indeed, been that exporters are more embedded in the economy. They have driven the national industrialization process by building linkages, increasing local content and value-added activities, and upgrading to more complex activities. The experience of Korean *chaebols* with low-equity or non-equity relationships with TNCs in the semiconductor, consumer electronics and automobile industries illustrates how the Government can work with domestic firms to help them graduate from technological imitation to innovation (Kim, 1997)**.** Nevertheless, that strategy ran into difficulties in the late 1990s, as access to frontier (as opposed to mature technologies became more difficult and as the financial problems of the *chaebols* deepened. For this reason, the role of FDI in Korean development was reviewed and a new approach was pursued.

* * *

In each of these winner countries, TNCs have played a significant role in improving export competitiveness, either through equity or non-equity relationships. But large as the share of TNC activities is, it varies considerably. Of the leading exporters, the Republic of Korea is an example of a winner

with a relatively small FDI presence, although non-equity links have played an important role. The other winners, especially

The winner countries are located in five rings. The central circle (ring 1) contains countries with market-share increases of 5 per cent or more during 1985-2000. Each

Table VI.17. Republic of Korea: exports by the leading 50 companies, 2000
(Millions of dollars and percentage)

Rank	Name of firms	Name of parent firm	Home economy	Industry	Value	Percentage of total exports
1	Samsung Electronics Co., Ltd.	Citibank [a]	United States	Electronics	20 270	13.5
2	LG Electronics Inc.	-	Rep. of Korea	Electronics	8 135	5.4
3	Hyundai Motor Co., Ltd.	DaimlerChrysler[b]	Germany/ United States	Automotive	6 642	4.4
4	Hyundai Electronics Industries Co., Ltd.	-	Rep. of Korea	Electronics	6 586	4.4
5	Amkor Technology Korea, Inc.	Amkor Technology	United States	Electronics	4 695	3.1
6	Kia Motors Co.	-	Rep. of Korea	Automotive	3 859	2.6
7	Hyundai Heavy Industries Co., Ltd.	-	Rep. of Korea	Ship building and repairing	3 578	2.4
8	S-Oil Corp.	-	Rep. of Korea	Petroleum refining	3 111	2.1
9	SK Corp.	-	Rep. of Korea	Petroleum refining	2 996	2.0
10	Daewoo Motors	-	Rep. of Korea	Automotive	2 838	1.9
11	Pohang Iron & Steel Co., Ltd.	-	Rep. of Korea	Blast furnace and steel mills	2 701	1.8
12	Daewoo Heavy Industries Ltd.	-	Rep. of Korea	Chemicals and allied products	2 538	1.7
13	Nokia TMC Ltd.	Nokia	Finland	Communication equipment	2 383	1.6
14	Chip PAK Korea	Chip PAK	United States	Electronics	2 364	1.6
15	TriGem Computer Inc.	-	Rep. of Korea	Electronics	2 042	1.4
16	Hyundai Oil Refinery Co., Ltd.	-	Rep. of Korea	Petroleum products	1 812	1.2
17	Anam Semiconductor	Amkor Technology	United States	Electronics	1 808	1.2
18	Samsung Heavy industries Co., Ltd.	-	Rep. of Korea	Ship building and repairing	1 773	1.2
19	Samsung SDI Co., Ltd.	-	Rep. of Korea	Storage batteries	1 708	1.1
20	LG Caltex Oil	ChevronTexaco	United States	Petroleum refining	1 620	1.1
21	LG Philips LCD	Philips Electronics	Netherlands	Electronics	1 566	1.0
22	Samsung Electro-Mechanics	-	Rep. of Korea	Electro-mechanics	1 366	0.9
23	LG Chemical Ltd.	-	Rep. of Korea	Petrochemicals	1 209	0.8
24	Daewoo Electronics	-	Rep. of Korea	Electronics	1 198	0.8
25	SK Corp.	-	Rep. of Korea	Petroleum refining	2 996	2.8

in non-resource-based manufactures – the most dynamic segment of world trade – have relied on TNCs to boost their export performance. China, Costa Rica, Hungary, Ireland and Mexico became export winners mainly by relying on FDI to generate their most dynamic exports. Beyond that, each country had its own specific advantages, enabling it to become linked to international production systems. China has the advantage or its large economy, which allows economies of scale and helps expand exports. Hungary, Ireland and Mexico have one common advantage: preferential access to a major market. In Costa Rica and Ireland, national policy in the form of a proactive approach to attracting high-technology FDI and linking up to international supplier networks has been an important factor. In all of them, TNCs have played a substantial role in expanding exports.

Notes

1   There are many ways to categorize activities by technology levels but most agree on the activities that fall into the different categories. The dividing line is generally the complexity of the technology and the intensity of spending on R&D.

2   *Primary products* cover minerals and agricultural or forest products exported in an unprocessed state. *Resource-based manufactures* include processed foods and tobacco, simple wood products, refined petroleum products, dyes, leather (not leather products), precious stones and organic chemicals. Resource-based products can be technologically simple (food or leather processing) or capital-scale-and skill-intensive (e.g. petroleum refining). *Low-technology manufactures* include textiles, garments, footwear, other leather products, toys, simple metal and plastic products, furniture and glassware. These products tend to have stable, well-diffused technologies largely embodied in capital equipment, with low R&D and skill requirements and low economies of scale. Labour costs tend to be a major element of cost and barriers to entry are relatively low, at least in the segments in which developing countries specialize. *Medium-technology manufactures* are "heavy industry" products such as automobiles, industrial chemicals, machinery, and standard electrical and electronic products. They tend to have complex but not fast-changing technologies, with moderate levels of R&D but advanced engineering and design skills and large scales of production. Barriers to entry tend to be high because of capital requirements and strong "learning" effects in operation, design

and product differentiation. *High-technology manufactures* are complex electrical and electronic (including information and communication technologies) products, aerospace products, precision instruments, fine chemicals and pharmaceuticals. Most call for advanced manufacturing capabilities, large R&D investments, advanced technology infrastructures and close interactions between firms, universities and research institutions. However, many activities, particularly electronics, have final assembly processes with simple technologies where low wages are an important competitive factor. The categorization is consistent with that in *WIR99*, chapter 8. Information and communication technologies comprise SITC, Rev. 2, 764, 776, 759, 752.

3   See *WIR99*, p. 229. Technology-intensive products are growing faster in both trade and production: during 1980-1997, total manufacturing production in 68 countries (representing over 95 per cent of global productive capacity) grew at 3.0 per cent per annum and manufactured exports at 6.6 per cent. High-technology production grew at 6.2 per cent and high-technology exports at 10.2 per cent (NSF, 2000). While the definition of "high-technology" products used by the NSF differs slightly from the one used here, the trends are likely to be very similar.

4   ASEAN-5: Indonesia, Malaysia, the Philippines, Singapore and Thailand.

5   CEE is not analysed here because 1985 data on several countries are lacking. As a result, group growth rate figures overstate the real expansion.

6   This may not be surprising in view of the country's size. In the developing world, China accounts for a much larger share of manufacturing value-added (about 30 per cent) than exports (18 per cent) (UNIDO, 2002). In this sense, China has some way to go before its exports "catch up" with its production capacity. However, large size is no guarantee of export dynamism – Brazil and India are good examples of this. China itself was a fairly small exporter a decade or so ago; its status now reflects an ability to build and maintain impressive rates of export growth (see the annex to this chapter).

7   Note that the training that takes place in the labour-intensive end of high-technology activities is generally far more advanced than in low-technology activities like clothing or footwear. This is the reason why high-technology export activities are less footloose than low-technology ones.

8   Third-party trade involves a TNC in one country exporting to an independent local firm and to its affiliated firms in another country.

9   See, World Bank, World Development Indicators database, http://www.worldbank.org/data/wdi2002/, and UNCTAD, Handbook of Statistics online, http://stats.unctad.org/.

10   In 1996-1998, the share of developing countries in world industrial production reached 20 per cent. In world services output, their share

11 was only 14 per cent (World Bank, 2002a). In developed countries, the share of services in total inward FDI stock also rose gradually over the past decade, to reach 56 per cent in 2000, up from 43 per cent in 1980. However, the share of services in the total exports of foreign affiliates remained relatively small, ranging from less than 1 per cent in France to 24 per cent in Japan. Furthermore, the share of the services sector in the total exports of foreign affiliates operating in Japan and the United States declined by nearly half during the past decade or so, despite the rising share of services in total FDI. Much service FDI in these countries is not export oriented.

12 Data provided by PricewaterhouseCoopers.

13 Data provided by PricewaterhouseCoopers.

14 Data provided by PricewaterhouseCoopers.

15 In all case studies in this section, the trade data for 1985 are the average of 1984-1986 and those for 2000, are the average for 1999 and 2000.

16 The following assessment was made by MOFTEC: "Overall, FIEs (note of the editor: foreign affiliates) already in operation have been performing well, with their growth margins in terms of such leading economic indicators as industrial value-added, export value, tax payments and surplus of foreign exchange all higher that the national average, and with an obviously higher share in the aggregate national economy, thus providing a strong boost to the sustained, rapid and healthy development of the national economy" (China, MOFTEC, 2001).

17 On Flextronics' global strategy, see box V.4.

18 The Hungarian surveys of top exporters do not report data for those firms that do not disclose relevant information. This leads to the omission of some large firms, such as Nokia or Knorr-Bremse, which are probably also leading exporters.

19 For a discussion of services export from Ireland, see box VI.6.

20 The most prominent ones are Samsung, Hyundai, LG, Daewoo and SK.

21 The transnationalization of several of the larger Korean TNCs faltered during the 1990s because of acquisitions that did not work out (Zenith and AST) and ill-advised expansion projects (Daewoo's expansion into risky markets and the failure of Hyundai's plant in Canada).

Annex to Chapter VI. Winners[a] in world trade, 1985-2000

successive ring represents the previous limit divided by half: thus, ring 2 contains countries with a market share between 2.5 per cent (5 divided by 2) and 4.9 per cent (the limit of the previous ring), and so on. The 2000 position is indicated by the name of the country, and its 1985 position, if different, is indicated by a ball. Arrows show the direction and magnitude of change over the period. This graphic representation is a useful way of showing the dynamics of world trade at the national level. Apart from its visual impact, it is useful in that it provides four kind o information at a glance: the definition of country winners, an indication of their concentration, the magnitude of overall and individual changes, and a sense of which countries might become the new entrants.

High technology. The main winners from the developing world are the East Asian economies and Mexico. China and Taiwan Province of China lead the group and now have world market shares higher than 5 per cent (ring 1). The most remarkable performance is that of China, which moves from ring 5 to ring 1, to become the largest exporter of high-technology products in the developing world. Another four developing countries have market shares of 2.5 to 4.9 per cent (ring 2): Singapore, the Republic of Korea, Malaysia and Mexico. They are followed by Thailand and the Philippines (ring 3), with Indonesia trailing some distance behind (reaching ring 5). Brazil retains a position in ring 5, while India and Costa Rica are just outside this ring.

There are relatively few winners from the industrialized world: while there are many large exporters of high-technology products, they have not increased their market shares. Ireland is the main winner, reaching ring 3 from ring 4. Finland (ring 5 to 4) and Israel (into ring 5) follow. Spain remains in ring 4. Turkey is outside ring 5.

In CEE, Hungary is the main winner, the only country to enter ring 5. However, three others (Poland, the Czech Republic and the Russian Federation) are hovering on the fringes of the ring.

Medium technology. There is only one main winner, the United States. Other industrial countries that have improved their

positions are Spain, Ireland, Portugal and Australia. Austria and Finland make gains, but within the same range. Israel lies just outside. There are four East European entrants with three just beyond.

The developing world puts up an impressive performance, again dominated by East Asia. The most dynamic winner is China. Mexico also has an impressive performance. The Republic of Korea and Taiwan Province of China lead the other dynamic exporters. Singapore, Malaysia and Thailand move up from a lower level, while Indonesia moves into the figure. The Philippines remains positioned outside as does the main exporter from South Asia, India. In Latin America, apart from Mexico, the only country in the figure is Brazil, with Argentina and Costa Rica lying just outside. In the rest of the developing world, Saudi Arabia and South Africa lie a little beyond the limit.

Low technology. This figure is more densely populated than the previous ones. As expected, there are a larger number of winners in activities with low entry barriers and frequent relocation in search of low wages. Interestingly, the United States appears as one of the main winners. The other, not surprisingly, is China. The largest gains in market share are achieved by Mexico and Indonesia.

Most East and South-East Asian exporters are present but the mature "tigers" (Singapore, the Republic of Korea and Taiwan Province of China) are absent – they are withdrawing from this technological category. Four South Asian economies appear as winners, led by India and Pakistan. There are several countries from Latin America and the Caribbean, most lying outside; Brazil, however, is not present. In other regions, Morocco and Tunisia improve their position, while Egypt and the United Arab Emirates appear just outside.

A number of CEE countries also improve their competitive positions in low-technology products, led by Poland and the Czech Republic. Other industrialized countries in the figure include Canada, Ireland, Turkey, Australia and Israel. Major exporters of fashion products such as Italy and France are not present as they have not increased their market shares during this period.

Figure VI.9. Winners in the high-technology manufactures trade, 1985-2000
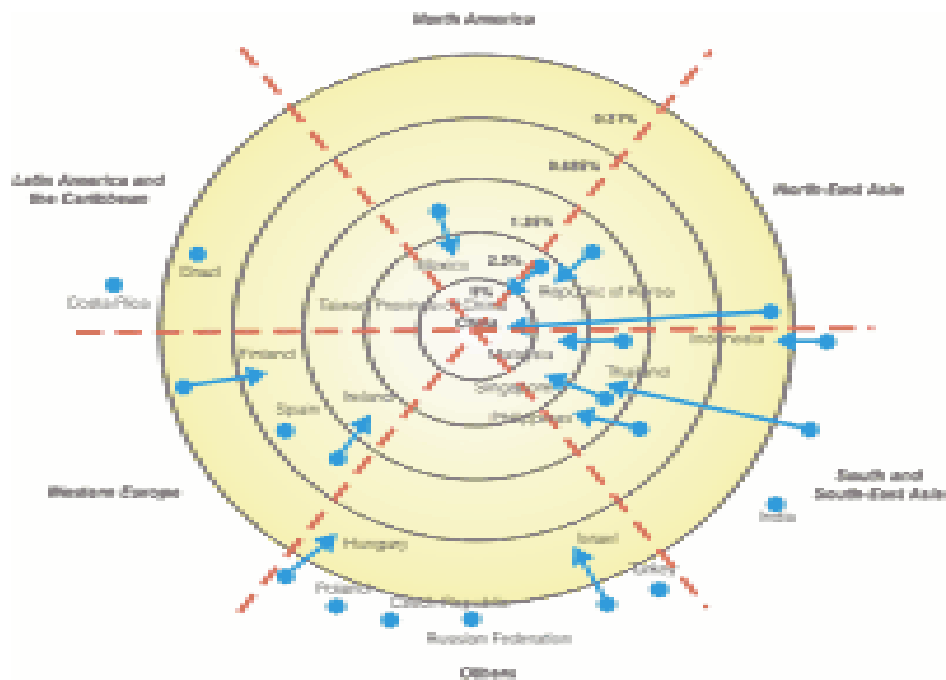
Source: UNCTAD.

Figure VI.10. Winners in the medium-technology manufactures trade, 1985-2000
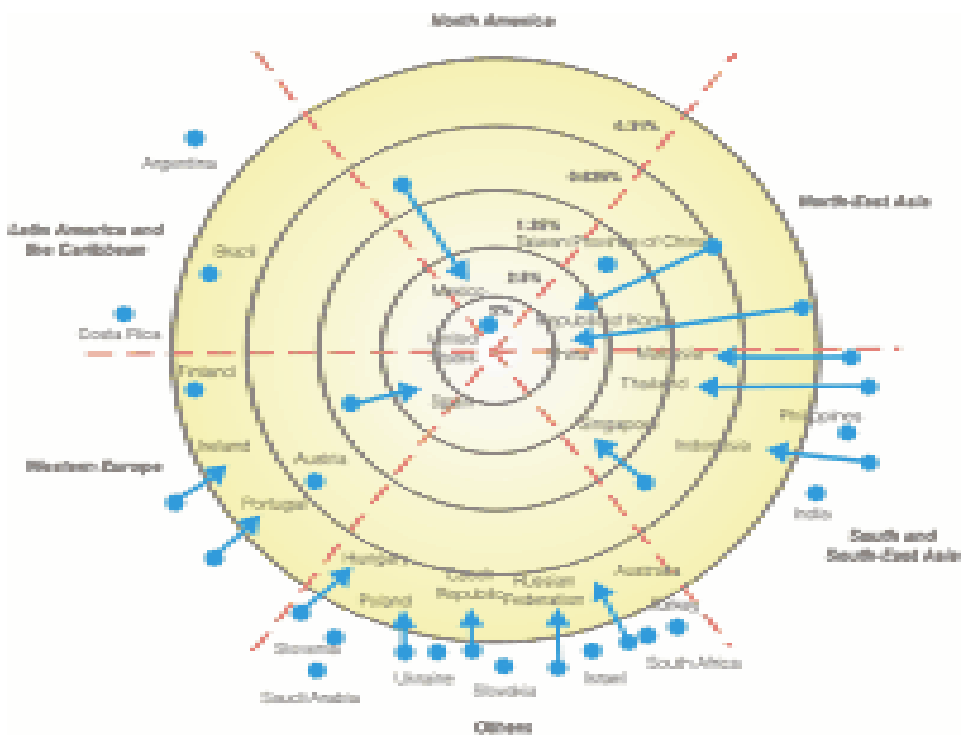
Source: UNCTAD.

Figure VI.11. **Winners in the low-technology manufactures trade, 1985-2000**
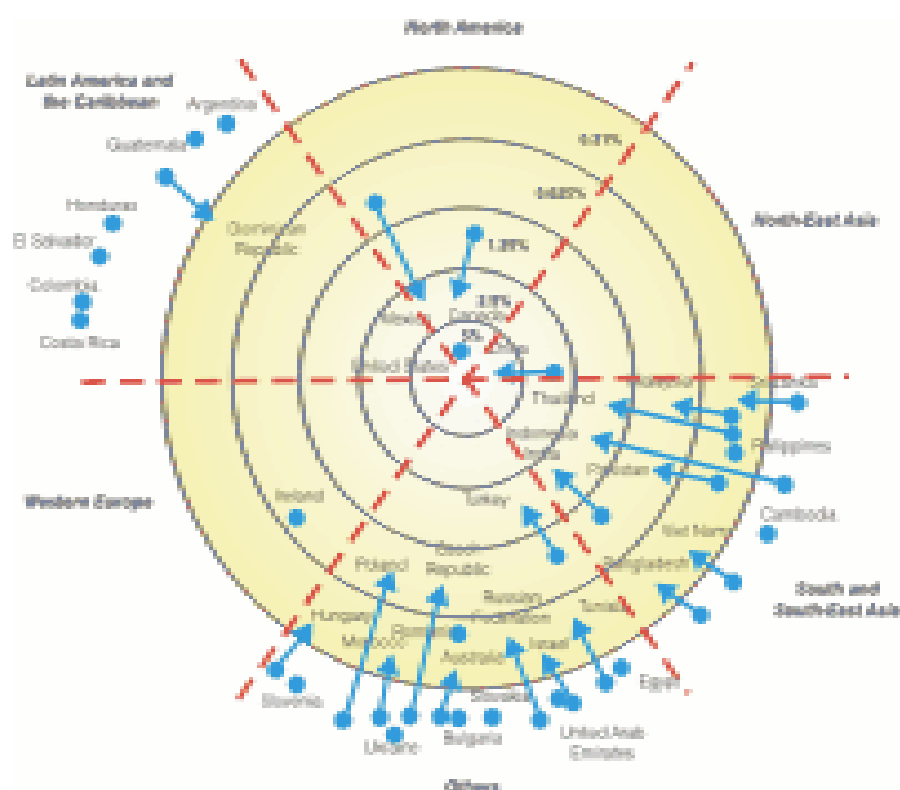
Source: UNCTAD.

a "Winners" are exporting countries that raised their share in world markets over 1985-2000, taking as a cut-off point a 0.3 per cent share in the relevant technological category.

CONCLUSIONS:

Benefiting from export competitiveness

Improving export competitiveness is important and challenging but it is not an end in itself. It is only a means to an end: the promotion of development. This raises the question of the benefits resulting from TNC-associated trade, beginning with improving the *trade balance*, and continuing with *upgrading* export operations and *sustaining* them over time. In each case, the issue is how host developing countries can most benefit from the assets that TNCs command. Much depends on the strategies pursued by TNCs within their international production systems, on the one hand, and local infrastructure and technological, institutional and supplier capabilities as well as the policies pursued by Governments, on the other.

A first approximation for assessing benefits and costs – although not the most important one – involves the *trade balance*. Even though export-oriented FDI helps to increase exports, foreign affiliates also import, and imports may increase significantly along with exports. In such cases, net foreign-exchange earnings may be negligible. Moreover, high export values may co-exist with low levels of local value added. This is typically the case, for example, when foreign affiliates mainly assemble imported components, reflecting the relatively unimportant role assigned to them in production systems.

Measuring the trade balance of export-oriented foreign affiliates as well as their value added, is fraught with difficulties. The data typically lump together export-oriented FDI and domestically-oriented FDI, making it difficult to determine the trade balance of export-oriented foreign affiliates separately. (Presumably, the trade balance of domestic-market-oriented FDI would be negative.) Furthermore, no systematic data exist on the composition of imports by foreign affiliates, which is relevant for understanding the implications for host economies. Scattered information suggests that the imports of

parts and components were high in certain industries, such as telecommunications, electric machinery and vehicles (chapter VI), especially in countries that hosted labour-intensive activities of international production systems. Furthermore, in developing countries, one would expect that newly established affiliates (or affiliates that intend to expand their capacities) would typically need to import capital goods (just as many domestic firms do) in order to expand local productive capacities.[1] Such imports are of a different nature – more likely to be indispensable for the production of the goods or services in question to take place – than imports of components for assembly or other inputs (for which domestic alternatives may be available or capable of being developed), yet both types of imports would be counted simply as affiliate imports. Moreover, imports would be particularly high when production facilities are being set up and reliance on home-country or other foreign suppliers of inputs tends to be high, and then presumably decline (partly as a result of the growth of local linkages). The imports of foreign affiliates in China are an instructive example (although one that cannot necessarily be generalized in this respect), in that the data show that a substantial part of imports by foreign affiliates consists of capital goods (box VI.8). Although the trade balance effects of foreign affiliates' activities remain the same when the composition of imports is taken into account, the overall economic implications for China are different, as imports of capital goods add significantly to the capital stock and productive capacity of the country.

In any event, as far as the impact on a country's balance-of-payments position – often a major underlying concern for developing countries (although somewhat diminished in importance as countries' exchange-rate policies have become more flexible) – is concerned, focussing on the trade balance captures only a part of the impact of TNC activities. Additional factors that need to be taken into account are capital

Box VI.8. FDI and the trade balance: the case of China

The data on imports and exports by foreign affiliates in China show a trade deficit until 1997 and modest surpluses in more recent years (box figure 1). This may suggest that the trade-related benefits of FDI, with its high import content, are quite limited for China. The reality is, however, more complex.

An examination of the composition of foreign-affiliate imports reveals that a significant proportion consists of capital goods (i.e. machinery and related equipment) to create or expand and up-grade productive capacity in affiliates (including joint ventures). Indeed, the share of such imports was high during the 1992-1997 FDI boom (box figure 2).

Box figure VI.8.1. The trade balance of foreign affiliates in China, 1990-2001

(Billions of dollars)

Box figure VI.8.2. The share of imports of capital goods in total imports by foreign affiliates in China, 1990-2001

Source: UNCTAD, based on data provided by MOFTEC.

Source: UNCTAD, based on data provided by MOFTEC.

Source: UNCTAD.

inflows, the repatriation of earnings and capital, and other long-term impacts on the foreign-exchange earnings of foreign affiliates and associated local companies. Such an analysis of the balance-of-payments impact, which would also have to be weighed against their other (structural) effects on a country's development and welfare, falls outside the scope of the present report.[2]

The question of *upgrading* exports relates to the extent to which FDI involves higher technological content and domestic value added in host-country export production and a restructuring of exports from those based on static comparative advantage to those based on dynamic comparative advantage. The starting point is that specialization in different segments of international production systems may imply different benefits and competitive prospects. There is therefore some concern that specialization in labour-intensive segments, even of high-technology exports, may in

some ways be undesirable as it may provide few benefits in training or technology and meagre spillovers to the local economy. Besides, the competitive edge of low-cost labour may disappear as wages rise. Still, labour-intensive exports are economically beneficial as long as local value added is positive at world prices, even if it does not rise at the same pace as the total value of exports. In fact, where surplus labour is unlikely to be used in more remunerative or economically desirable activities, it is in the interest of the countries concerned that it be used in production for export. Any theory of comparative advantage would suggest that such countries should specialize in simple labour-intensive processes at the beginning of their export drive; the question is whether they can subsequently upgrade and sustain their exports.

TNCs can contribute to the upgrading of a country's competitiveness by either investing in higher-value-added activities

in industries in which they have not invested before or by shifting, within an industry, from low-productivity, low-technology, labour-intensive activities to high-productivity, high-technology, knowledge-based ones.[3] The first of these processes is illustrated by a number of the winners discussed in this Part, especially those that experienced a notable shift – as a result of substantial new FDI inflows and new roles in supplier networks – from low to medium – to high-technology industries and sectors. Also rising significance is the growth of FDI-associated service exports from developing countries.

Intra-industry upgrading occurs in several ways. There is, first of all, the situation in which TNCs locate production facilities aimed at serving highly competitive national, regional and global markets in a developing country; many of the dynamic products identified in chapter VI fall into this category. TNCs need to upgrade these production facilities continually just to survive, let alone capture higher market shares for a given product. Intra-industry upgrading also involves adding or moving into higher-value products within the same industry. The success of countries such as China, Ireland, Malaysia, the Philippines and Singapore in upgrading the export competitiveness of their electronics industries is a case in point. Thus, for example, Motorola, in its own interest, substantially upgraded its facilities in China (box VI.9); Ireland convinced Intel to upgrade beyond assembling and testing to wafer fabrication; and Malaysia established long-term relationships with Matsushita Electric and Sony working with them to upgrade their export operations for colour televisions into regional manufacturing operations. But even where strong corporate self-interest is involved, government policy (often in close cooperation with TNCs) can play a role in encouraging upgrading, in particular by ensuring that the production environment allows such upgrading and that it extends to more value-added functions such as R&D. The case of Motorola in China, is a case in point.

Something similar tends to take place in the case of foreign affiliates hitherto protected by import barriers. Under pressure from trade liberalization and competition, many TNCs restructure – in their own interest – import-substitution activities into export-oriented operations, at least in countries

in which a competitive base exists, or can be created. Some outstanding examples are the automotive industry in Mexico and the colour television industry in Malaysia and Thailand (UNCTAD, 2000e). Here, policies played an important role. In Mexico, it was the launch of the *maquiladora* scheme, combined with the need of the automobile industry to find low-cost production sites and the further liberalization of NAFTA with its rules of origin for the automobile industry that had a profound effect on the country's export competitiveness. The rules of origin were initially established to help United States automobile TNCs to compete better in their home market against Asian, specifically Japanese, TNCs. This worked very much in Mexico's favour as Ford, General Motors and Chrysler (now DaimlerChrysler) and their suppliers set up world-class plants there to export to the United States market. Then, Volkswagen, a German automobile TNC, established an export platform in Mexico and was obliged to bring its global suppliers into Mexico to meet the NAFTA rules of origin. The overall result was a complete restructuring of the Mexican automobile industry from a protected and inefficient import-substitution activity to a highly competitive export platform.

These are examples from some of the most dynamic export products of how the self-interest of TNCs, combined with appropriate government policy, can produce major improvements in the export competitiveness of host countries. In other situations, however, considerably stronger government efforts are required to capitalize on the assets of TNCs and what, in the absence of such efforts, may only be temporary advantages. The garment industry exemplifies why simply attracting export-oriented activities in and by itself might not be enough to move up the value-added ladder and increase national benefits.

Branded manufacturers of garments like Sara Lee and Fruit of the Loom made use of the United States' production-sharing mechanism (see chapter VII) to gain competitive advantage vis-à-vis Asian producers by establishing assembly operations in the Caribbean basin. In the context of the Multifibre Arrangement quotas, this mechanism allowed these assemblers to remain competitive in the United States market in spite of the fact that wage levels in the

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Box VI.9. Upgrading and embedding export-oriented operations in a host economy: the case of Motorola in China

Motorola entered China in 1987. In 1992, it began production, among other things, of beep-pagers, mobile phones, two-way radios and automobile electronics. Over the past decade, Motorola increased its investments in China several times, partly by reinvesting its earnings. By the end of 2001, its total investment in China had reached $3.4 billion. Its business operations include 36 foreign affiliates, including a holding company and a number of joint ventures, with 13,000 employees and nearly $5 billion in sales in 2001. Motorola is the biggest foreign electronic company, as well as the leading high-technology producer and exporter in China. In 2001, Motorola's exports from China amounted to $1.7 billion: 34 per cent of its total sales.

Over the past decade, Motorola has increased the sustainability of its operations in several ways:

- *Investment and technology transfer.* Motorola has steadily strengthened its R&D in China. In November 1999, it set up a research institute in Beijing to oversee its 18 R&D centres (with a total of 1,000 employees by 2002). Some of the latest models of mobile phones were developed, designed and produced in China, combining wireless communications with Internet access. These products are now competing in the international market.
- *Local sourcing.* Motorola assists local suppliers in improving management, efficiency and quality control. It also brings local suppliers into contact with foreign buyers. In 1997, for example, Motorola provided 5,600 hours of training to 118 local suppliers. In 2001, Motorola and some of its affiliates outside China, purchased $1.8 billion in supplies from local sources. In 2002, the company had over 170 first-tier and 700 second-tier suppliers in China.

Motorola has also formed strategic alliances with Chinese universities, institutions and enterprises in high-technology R&D projects, including the Motorola NCIC Advanced Communications Technology Lab, the Motorola-DaTang Cooperation Project, the Motorola-Jinpeng Cooperation Project and the Motorola-Eastcom Cooperation Project.

In November 2001, soon after China's entry into WTO, Motorola established a new five-year strategy, the "2+3+3 strategy". The "2" refers to building China into a world-wide manufacturing and R&D base. The first "3" refers to three new growth areas, namely semiconductors, broadband and digital trunking systems, in which Motorola has been a technology leader in the world market. The second "3" refers to the following three $10-billion goals by 2006: annual output to reach $10 billion, accumulated investment in China to reach $10 billion; and accumulated local procurement to reach $10 billion.

The Motorola manufacturing base in Tianjin is scheduled to be transformed into two parts: a semiconductor production centre and an Asian communications production base. The semiconductor centre, one of the biggest in the world, will mainly produce advanced semiconductors to support wireless communication, automobile electronics and advanced consumer electronics. The Asian communications production base is being expanded to produce high-quality, latest-model mobile phones and related digital technology. Motorola also plans to increase its R&D expenditures to a cumulative $1.3 billion by 2006 and recruit 4,000 researchers.

Located initially in an economic development zone in Tianjin, Motorola enjoyed various kinds of preferential treatment, particularly incentives that encouraged export oriented and high-technology FDI. Business facilitation by the local government has also been instrumental for nurturing the required industrial cluster and in building investment infrastructure for Motorola. Motorola Tianjin, in turn, has become an "anchor" to attract sequential and associated FDI to the country.

Source: UNCTAD, based on various sources of information about Motorola China.

Caribbean basin were higher than many other garment production sites. Contrary to the experience of Mexico in respect of the rules of origin of NAFTA, this mechanism did not allow host countries to progress by increasing local content, raising value added or upgrading the industry. This is because the tariffs applied to value added outside the United States discourage the use of local inputs. For that reason, Costa Rica,

for example, chose to focus on electronics and other industries. With the impending implementation of the WTO Clothing and Textile Agreement, many host countries specializing in garment exports will have great difficulties in facing competition from Asia, especially from China. In anticipation of this, some of these branded manufacturers are cutting back on their international production systems and relying more on

full-package suppliers and contract manufacturers. The nature of the production-sharing mechanism that restricted the upgrading of the local operations beyond low-wage assembly has left these export platforms in difficult circumstances. Corrective national policy action is urgent in cases like this (Mortimore, 2002).

This underlines the importance of ensuring the *sustainability* of export-oriented foreign affiliates. For such affiliates not to be ephemeral, they need not only to upgrade, but to be progressively embedded in host economies through strong backward linkages.[4] This requires policies aimed at fostering local capabilities, and, in particular technological capabilities, human resources and a competitive domestic enterprise sector. Where these policies are successful, they are likely not only to make the exports involved more sustainable and beneficial for the host countries involved, but also to increase the competitiveness of the domestic enterprise sector, the bedrock of economic development. In the end, some of these domestic enterprises may become TNCs in their own right and contribute to the development of their home countries through their own global activities. The success of a number of (mainly Asian) countries in attracting export-oriented TNC activities as part of a broader national industrialization strategy offers a model for others.

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TNCs play an important role in the exports of many developing countries and economies in transition. Indeed, for the most dynamic products in world trade, TNCs are central for enabling these countries to reach world markets, and they provide some of the "missing elements" that developing countries need to upgrade their competitiveness in export markets. The potential benefits of TNC export activity are still far from fully exploited and they are growing. Technologies are changing. Processes and

functions are increasingly divisible, and the boundaries of what is internal and external to firms are shifting. The "death" of distance – or its diminishing cost – is stretching location maps. New activities are likely to join the globalization surge, including many from developing economies. The challenge for countries that would like to improve their export competitiveness in association with TNCs is how to link up with the international production systems of these firms and how to benefit from them.

The spread of TNC activity offers host countries opportunities to expand exports and move into higher value-added activities. Capitalizing fully on static benefits and transforming them into dynamic and sustainable advantages requires pro-active government support. To benefit most from TNC-associated export competitiveness, developing countries must make continuous efforts to root TNC activities in host economies, raise the level of local content, increase the value added by these activities, upgrade them into more sophisticated areas and make them sustainable. TNCs, in a number of circumstances, will take initiatives of their own, in their own self-interest. But national policy efforts – and the policy space to pursue them – are critical for both attracting export-oriented FDI and ensuring its sustainability in order to advance development.

Notes

[1] In the absence of the financing of capital-goods imports by FDI, countries seeking to build productive capacities would presumably have to spend foreign exchange to acquire them.

[2] For a brief discussion of the balance-of-payments effects of FDI on ASEAN countries, see *WIR97*, chapter II.

[3] For an analysis of the role of TNCs in competitiveness in general, see *WIR95*, especially chapter V, focusing on industrial restructuring in host economies.

[4] See *WIR01* for an examination of how more and deeper linkages can be encouraged by government policies.

PART THREE

PROMOTING EXPORT-ORIENTED FDI

INTRODUCTION

Part Two highlighted cases of developing countries and economies in transition that have strengthened their export competitiveness over the past decade and a half, increasing their market shares in dynamic export products as well as moving up the technology ladder from exports of natural resources or low-technology products to those embodying higher technologies. It also drew attention to the role of TNCs in the exports of a number of other countries, including countries that have found new niche markets in the export of services, products or fresh agricultural produce. All these countries have, in one way or another, linked up with TNCs to enhance their export competitiveness. While there are different ways to improve the export competitiveness of a country, the pervasive role of TNCs in world trade makes it important for countries to contemplate how to take advantage of TNC activities in terms of enhancing their own development objectives.

What policy challenges face countries that want to attract export-oriented FDI and benefit from it? What lessons can be drawn from their experiences and the successes of countries that have attracted export-oriented TNC activities? The diversity of the group of winner countries studied in Part Two, as well as the experiences of other countries with substantial involvement in their exports, shows that there is no simple, universal prescription for the promotion of export-oriented FDI. Some countries have chosen a highly pro-active approach, whereas others have managed to expand their exports based on less focused efforts. In general, however, successful experiences have shown that macro-economic stability as well as the availability of appropriate skills, technological capabilities and a strong domestic supplier base are key factors in making a location competitive. It goes well beyond the scope of this report to address the range of broad-based policies that are needed to promote development in these areas.[1]

Rather, the purpose of Part Three is to review a variety of policy tools with direct relevance to FDI that can be used to attract, upgrade and benefit from export-oriented FDI

to achieve sustained export competitiveness. Although the focus is narrow, it should be understood that a successful policy approach has to be broad-based and in tune with the broader development strategy of a country. Policy-makers also need a good understanding of the corporate strategies driving export decisions and to adjust policies to changing strategies. While the international restructuring of production activities and the search among firms for more cost-efficient configurations undoubtedly open new opportunities for developing countries, the demands on potential locations are also increasing. Even in such low-technology activities as apparel manufacturing, a higher level of productivity and efficiency is now necessary to compete with other exporters. When it comes to more dynamic industries, few locations have the advantages needed to become an integrated part of TNC production systems. Policy-makers need also to take account of the international regulatory framework affecting trade and investment, as international rules in some cases prohibit the use of instruments applied in the past.

In general, the challenge is related to the need for continuous upgrading of domestic resources. Countries with a strong domestic export base and substantial technological capabilities seek to upgrade into higher-value-added exports. With rising incomes and labour costs, efforts to raise productivity are essential to remain competitive. For those that have attracted FDI into low-technology exports, the key priority is to diversify into higher-value products, which also requires an upgrading of capabilities. Countries that have built up sizeable industries behind protective barriers but not made the transition to dynamic export growth need to consider how FDI can support the reorientation and upgrading of existing industries. In countries with weak industrial and export capacity, the question is how to attract FDI that can help create export capacity in any sector with potential (*WIR99*, pp. 251-252).

Part Three consists of two chapters. The first (chapter VII) considers various policies that have a direct bearing on the ability of countries to attract and benefit from

export-oriented FDI and thereby strengthen their export-competitiveness. While most of the discussion concentrates on what host-country Governments can do, the chapter starts by looking at an issue that is largely shaped by home-country policies: access to foreign markets. The analysis in Part Two showed that preferential trade arrangements, production-sharing initiatives and regional integration continue to influence the location of export-oriented activities in some industries. While these arrangements can facilitate access to major markets, some of them are limited in time and their advantages are being eroded by progressive liberalization. The recent rise in the use of certain protectionist measures in major markets creates further uncertainty for export-oriented companies and is a legitimate cause for concern for host developing countries.

With more open markets, host-country Governments can consider a range of measures to improve their long-term attractiveness as a base for export-oriented production by TNCs. In the context of an evolving international regulatory framework, a common concern among developing countries is whether sufficient policy space will be available for them to pursue their development-enhancing policies.

Starting from a clear understanding of how their locational advantages can match the requirements of export-oriented TNCs, host-country policies may aim at:

- Improving access to imported inputs and facilitating trade more generally, through trade liberalization and facilitation measures, given that export-oriented activities (especially in non-resource-based industries) often involve a large proportion of imported inputs.

- Inducing more exports by foreign affiliates through export-performance requirements.

- Lowering production costs and risks by offering incentives to induce new or more export-oriented FDI, taking due account of prevailing WTO and other international rules.

- Setting up export-processing zones (EPZs) with a view to providing efficient infrastructure and removing red tape within the confines of a limited area.

- Developing relevant skills, linkages, industrial clusters and the like.

When appropriate, throughout the policy analysis, lessons are drawn from the experience of developing countries and economies in transition that have successfully used inward FDI to enhance their competitiveness. Care must be taken, however, in applying the lessons: a particular policy may work only in a specific economic, historical, geographical, cultural and political context. Policy choices must reflect the specific circumstances of each location and the locational determinants of specific activities.

The last chapter (chapter VIII) turns to the role of investment promotion. Given their position at the interface between business and government, investment promotion agencies (IPAs) can assume several important roles in promoting export-oriented FDI. Promotional strategies are evolving against the background of a changing global environment for FDI, including increasing competition for such FDI. More and more countries are adopting a focused approach to investment promotion, inspired by the successes of such countries as Costa Rica, Ireland and Singapore. In targeted investment promotion, the work of IPAs is an integral component of broader development strategies. The goal is to attract FDI that maximizes the advantages of a given location and contributes to carefully defined development objectives. The first part of the chapter discusses why, what and how IPAs target their efforts to promote export-oriented FDI, as well as some of the risks and pitfalls that are involved in the process.

IPAs also assume important responsibilities in ensuring that new investment projects are handled efficiently. Even though FDI may be allowed into most economic sectors, screening, licensing and other time-consuming requirements can discourage investors, as can corruption. Investors are not without alternatives and may not be patient. The ongoing restructuring of international production systems underlines the need for IPAs to provide after-care services to existing investors. Such efforts can be important to facilitate retention, expansion or upgrading of current activities and can generate important inputs into a longer-term process of improving a location's attractiveness. Given their close links to the private sector, IPAs can be in a unique position to provide relevant information to other branches of government, so that coordinated action to remove obstacles becomes possible.

The conclusion underlines the need for an adequate policy response to arrive at the ultimate objective of attracting export-oriented FDI: to promote development. This essentially implies a need for FDI policies to be well integrated with policies in other related areas. While export-oriented FDI can bring important benefits to a country, it is nonetheless mainly a complement to domestic capital formation, not a substitute for it. Thus, in countries that have successfully leveraged TNC activities to strengthen export competitiveness in line with long-run development objectives, considerable resources were normally invested in strengthening the domestic skills base and the enterprise sector. Strong domestic skills and other capabilities are necessary to expand or upgrade exports and to benefit fully from the FDI that comes in. It is the interplay between domestic and TNC capabilities that determines how countries build competitiveness and move up the value chain.

Note

[1] *WIR99* examined the role of TNCs in enhancing technological capacity and strengthening the skills base of host countries, and *WIR01* analyzed policies to promote linkages between foreign affiliates and domestic suppliers.

CHAPTER VII

POLICY MEASURES

A. Policies related to market access

Access to foreign markets is a prerequisite for a country to attract export-oriented FDI. The liberalization of trade and investment is in itself an important factor explaining the growth of such FDI, with production being distributed more in line with the comparative advantages of different locations. Liberalization is still continuing at the multilateral, regional and bilateral levels and offers new opportunities for developing countries. At the same time, the recent slowdown in the world economy and corporate strategies in favour of relocating production to lower-cost locations (Part Two) have led to a rise in protectionism. The growing use of anti-dumping, countervailing and safeguard measures, and of other non-tariff barriers is worrisome in this respect, as is the widespread use of investment incentives by developed economies. These and other investment-related trade measures (UNCTAD, 1999b) can create obstacles to exports from developing countries and make it difficult for them to attract export-oriented FDI (box VII.1).

Box VII.1. Potential obstacles to market access

There are a number of ways for a country to protect its market from foreign competition and to hinder a shift of production to lower-cost locations. The post-Uruguay Round protection pattern is characterized by a large number of tariff peaks concerning products of export interest to developing countries in agriculture, food, textiles, apparel and some medium-technology products. Tariff escalation too, is a pervasive feature in both developed and developing countries and concerns both agricultural and industrial goods (Cernat et al., 2002).

Resistance in a home country to the relocation of labour-intensive activities to developing countries can slow down the restructuring process and trigger measures that may counteract efforts to liberalize trade. Such tendencies are accentuated by an economic slowdown, which forces firms to search for new ways of cutting costs; this may, in turn, lead to various contingent protection measures and the use of incentives and subsidies to discourage relocation.

Safeguard measures as well as *anti-dumping and countervailing duties* may lead to investment diversion, and have the ultimate effect of restricting access to importing markets. Their availability in the trade policy arsenal and their increasing use by a larger number of countries create uncertainties in market-access opportunities in these countries and may discourage investment in exporting locations. In many cases, the mere threat of such measures or their initiation (with the imposition of provisional measures) may be enough to protect the importing country. Conversely, the availability and use of safeguard measures as well as of anti-dumping and countervailing duties may attract investment towards the importing country, since exporting firms may seek to avoid the risk of being hit by such measures through local production.

Business concerns in this area are exacerbated by the unpredictability of the outcome of trade-remedy law proceedings. Present practices appear to put developing countries and economies in transition, at a disadvantage (Moran, 1998). The number of anti-dumping initiations rose from 157 in 1995 to 330 in 2001 (with a peak of 356 in 1999). In 2001, the largest number of such initiations were related to "base metals and articles of base metals" (128), followed by "products of chemicals of allied industries" (65). During the period 1995-2001, the developing countries most affected by anti-dumping initiations were China and the Republic of Korea, with 255 and 138 cases respectively brought against them.[a]

Home-country *incentives* and *subsidies*, aimed at retaining or hindering the relocation of existing production by domestic or foreign investors may similarly reduce the likelihood of export-oriented FDI flows to developing countries or economies in transition. In the light of the weaker economic performance of the world economy, the willingness of developed-country Governments to provide new support to their ailing industries may increase.

Source: UNCTAD.

[a] www.wto.org/english/tratop_e/adp_e/adp_e.htm#statistics/.

In some industries, special trade schemes continue to have an important influence on the allocation of export-oriented FDI. The analysis in Part Two showed that many of the "winners" in export competitiveness have benefited from trade arrangements that give them privileged access to key markets, notably in the United States and the European Union. This applies in different ways to low-technology industries (e.g. garments), medium-technology industries (e.g. automotive) and high-technology industries (e.g. electronics).

The so-called production-sharing schemes are important tariff arrangements that can affect the location of export-oriented FDI linked to international production systems. These have been adopted by many developed countries for the treatment of outward processing operations. Production-sharing initiatives are typically driven by home-country firms' need to respond to increased competition, especially from low-cost locations. Developing countries have traditionally acted swiftly with complementary host-country measures – such as maquiladora regimes, free trade zones, industrial parks and other incentives (see also section VII.F) to attract this type of production. These operations invariably involve the export of various components from the home country to undergo further processing and/or assembly, and their subsequent re-import into the home country in the form of finished or semi-finished products. In such cases, a distinction is made for customs purposes between the value of the original component produced domestically and the value added abroad; only the latter part of the value is subject to duty. Both the United States and the European Community have such schemes.[1]

In some cases, these have encouraged the establishment of offshore processing bases. In the case of the United States, the principal products involved in production-sharing have been apparel, television sets, other electronic products, autoparts and semiconductors. Economies in which production-sharing operations take place include Mexico, a number of Caribbean countries, Malaysia, the Philippines, the Republic of Korea and Taiwan Province of China (USITC, 1999). The European Community system has contributed to the establishment of assembly operations in a number of developing countries, chiefly in the Mediterranean region and CEE, including the Czech Republic, Morocco, Poland, and Tunisia (Yeats, 2001). As in the case of

the United States, production-sharing operations involving EU firms have tended to be concentrated in labour-intensive industries such as textiles and clothing, footwear, some types of machinery and mechanical appliances, vehicles, processed food and leather products (ECE, 1995, p. 113).

Production-sharing is expected to remain of significant interest to developed-country firms seeking to maintain their competitiveness in industries in which tariffs and labour-intensive assembly continue to be an important cost element. For example, the majority of United States imports from Canada and Mexico that incorporate United States-made parts no longer take advantage of production-sharing provisions as they are already eligible for duty-free treatment under NAFTA. It should be noted, however, that, from a developing-country perspective, production-sharing schemes generally do not allow for the expansion of local inputs other than labour. In this sense, such schemes do not encourage the creation of linkages between foreign investors and domestic suppliers.

Whereas production-sharing schemes do not generally give preferential treatment to specific countries, there are other trade arrangements that do, with implications for the location of export-oriented activities. Many LDCs and other developing countries benefit from preferential access to developed-country markets in many export-oriented industries (Hughes and Brewster, 2002).[2] Any preferential trade treatment that a country enjoys in export markets may increase the willingness of TNCs to set up export-oriented production there. Conversely, countries not covered by such schemes are in effect discriminated against. The benefits have sometimes been big enough to influence the location of investments.

There are a large number of such non-reciprocal preferential schemes, including the Generalized System of Preferences, the European Community's trade preferences under the Cotonou Agreement, the Caribbean Basin Initiative, and, more recently, the European Union's Everything-but-Arms Initiative and the United States' African Growth and Opportunity Act (AGOA).[3] Moreover, the location of export-oriented FDI has also been affected by a number of regional integration schemes, such as free trade areas and customs unions. Two of the most important are NAFTA (which was preceded by a bilateral free trade

agreement between the United States and Canada) and the European Union and its association agreements. A number of the "winner" countries mentioned in Part Two, including the Czech Republic, Hungary, Ireland, Mexico, Poland and Spain have benefited from such schemes in their efforts to attract export-oriented FDI.

The impact of trade preferences given to beneficiary countries depends, to a large extent, on the rules of origin attached to them. Rules of origin arising from regional trade agreements or other preferential schemes determine the national origin of a product for the purpose (among others) of granting preferential treatment. Rules of origin are often based on the level of domestic value added and/or of local content. When such rules are too stringent in either of these two dimensions, they can limit the investment pull of the preferential scheme. If affiliates are constrained in using inputs sourced from the international market or are required to undertake activities for which the host country is not well suited, the benefits of the preferential scheme may fail to motivate export-oriented FDI.

This aspect is well illustrated by AGOA. One of the key elements of AGOA, unlike other preferential schemes, is a special provision that allows African countries with an annual GNP of under $1,500 ("lesser developed beneficiary countries") to use third-country fabric inputs until 2004. Some preliminary evidence suggests that a number of beneficiary countries – notably Lesotho, Madagascar and Malawi – have seen inflows of export-oriented FDI linked to AGOA (Part One, box III.4). For example, companies from Taiwan Province of China are the main foreign investors in Lesotho's garment industry. The textiles used are imported primarily from East Asia. After 2004, however, to benefit from preferential access under AGOA, the fabrics will have to be of United States or AGOA-beneficiary-country origin.

For some beneficiary countries, AGOA has led to a rapid increase in their exports of some products to the United States market. This is partly due to the sudden opening of the protected textile and apparel market in the United States, thus giving beneficiary countries an edge over competitors. However, benefits from AGOA appear to have been unevenly distributed so far, with a handful of countries being the main gainers. Moreover,

as the possibility of sourcing fabric inputs from third countries is limited to four years, there is a risk that the beneficiaries' advantage will be short lived. The policy challenge for these countries is to prepare for an eventuality of no trade preferences, either by developing the domestic capacity to provide the necessary inputs, by attracting FDI into these stages of production, or by finding competitive sources of inputs in other AGOA beneficiary countries. This situation is similar to that of countries that attracted export-oriented FDI – thanks to unused quotas for export to countries that restricted access for textiles and clothing products – under the Multi-fibre Arrangement. As these quotas are to be completely phased out by 2005 (box VII.2), there is an obvious risk of the relocation of existing investment to countries that offer more competitive conditions.

Box VII.2. The phasing out of the Multi-Fibre Arrangement

The textile and clothing industry was exempted from the general provisions of the GATT and regulated by the Arrangement Regarding International Trade in Textiles, commonly known as the Multi-fibre Arrangement (MFA). This Arrangement allowed importing countries to establish quantitative restrictions on the imports of textiles and clothing to prevent disruptions in their national markets. In 1995, half of the apparel imports to the United States were subject to quotas (ECLAC, 2000).

The MFA was discontinued as a result of the Uruguay Round. International trade in textiles and clothing is now regulated by the Agreement on Textiles and Clothing. This Agreement lays out a process of liberalization of bilateral import quotas in four broad product groups (tops and yarns, fabrics, made-up textile products and clothing) over a 10-year period ending on 1 January 2005. The obligation to phase out existing quantitative restrictions applies to the four countries or groups of countries that maintained such restrictions under the MFA: Canada, the European Union, Norway and the United States. Generally, most of the apparel products to be liberalized have been left to the last phase, thereby allowing maximum adjustment time to the importers' apparel firms.

A number of developing countries (e.g. Bangladesh) managed under the MFA to attract export-oriented FDI, especially from countries constrained by the quota allocated to them (e.g. the Republic of Korea). By 2005, the recipients of such FDI risk losing it unless they become internationally competitive.

Source: UNCTAD.

Preferential trade agreements and offshore production schemes will play a declining role as tariffs and quota restrictions fall but, as long as such barriers exist, they remain relevant for the location of export-oriented FDI. Thus policy-makers need to be aware of any opportunities still available from such schemes, while also understanding their limitations, particularly with regard to linkage creation. In addition, in the light of the continuing erosion of preferential margins, countries may be well advised to prepare for a situation without such privileges. Trade preferences alone do not provide a sustainable basis for developing competitive export industries (with or without FDI), but they do offer a temporary window of opportunity. Countries that can offer the most competitive conditions for export production in a given industry stand to gain as preferential schemes disappear, and the beneficiaries of such schemes thus need to strengthen their capabilities in areas in which they can claim comparative advantages. This is the focus of the rest of this chapter.

B. Improving access to imported inputs

Foreign affiliates active in export markets can be significantly affected by the host country's trade regime. Efficiency-seeking FDI often involves international trade (internal or external to TNCs), with significant flows of intermediate and finished goods sourced in different locations. Export-oriented FDI falls into this category, especially when it is a part of the international production systems of TNCs (see Part Two). Trade liberalization in general can make a host country more conducive to export production. For export-oriented foreign affiliates, any tariff or other (for instance quantitative) restriction on imported inputs affects efficiency and cost, and schemes to reduce or eliminate barriers to foreign inputs increase the attractiveness of a host country. There are a number of specific measures to reduce the costs of accessing foreign inputs, even without general trade liberalization. Special attention is given in this section to various ways of relieving exporters of the burden of taxes on imported inputs, notably through duty drawbacks and exemptions.

The duty drawback system is a commonly used method of relieving import duties imposed on goods used for the production of exports. A "drawback" is a refund of duties or taxes paid against certain imported merchandise upon re-export. Drawbacks thus make some imported material duty-free, thus encouraging production in the country granting it. The imported goods eligible for duty-free treatment can include raw materials and other inputs consumed in the production process as well as the energy, fuels and oil used for production. An important issue for developing countries is the treatment of indirect exporters, namely domestic suppliers that use imports to produce the inputs they supply to exporters. They should also be able to claim duty-exempt imports to remain competitive vis-à-vis foreign suppliers so as not to hamper the formation of local linkages (Felker and Jomo, 2000). Kenya, Mexico, Taiwan Province of China and the Republic of Korea are examples of economies that allow drawback refunds for indirect exporters (Jenkins and Kuo, 2000).

One problem with a drawback system is that its administration is cumbersome and prone to abuse. When goods are first imported, they are not specifically earmarked for use in the production of exports, and this determination is all the more difficult as manufacturers often produce for the local as well as the export market. Only the exporter knows the quantity of materials used in the production process. The customs administration has either to take the exporters' calculations or specify arbitrary (and usually inaccurate) input-output coefficients for each item produced. Furthermore, customs administrations are naturally reluctant to refund money that has already entered their coffers. The ensuing delays in payments can generate cash-flow problems for exporters.

An alternative is the duty exemption or suspension system. Under such a system, the customs administration sets up accounts for individual importers. Import duties are recorded in the account and held as liabilities, cancelled upon export. This avoids exporters having to pay taxes up front only to be refunded at an uncertain later date. The problem of determining what has been imported for what purpose and what duties have been assessed is made more transparent through the use of the individual accounts. Sometimes the

suspension is granted only if a firm already has an export order. Furthermore, to make sure that importers pay duties if they do not export, some customs administrations require importers to provide guarantees in the form of bonds, securities, bank drafts or the like. For instance, in Mexico, the original suspension system did not provide for a requirement for bonds or bank guarantees and was widely abused. Then in 1999, Customs Bank Accounts were introduced, into which direct and indirect exporters deposit an amount equal to the taxes under suspension in interest-bearing bank accounts. The customs authority releases the funds upon approval of the claim for duty remission on the inputs used to produce exports (Jenkins and Kuo, 2000).

C. Trade facilitation

Beyond the tariff treatment of imported inputs, countries have engaged in broader efforts of trade facilitation. Trade facilitation aims at developing a consistent, transparent and predictable environment for international transactions, based on internationally accepted customs and practices that simplify procedures, standardize physical facilities and means, and harmonize trade and transport laws and regulations (box VII.3). Trade facilitation measures are intended to speed up the movement of goods and trade information across borders, thus bolstering growth while enhancing security. They cut across a wide range of areas such as regulations and controls, business efficiency, transport, information and communication technologies, and the financial sector, and involve traders, banks, insurers and other actors engaged in international trade, along with customs authorities.

The effective implementation of such measures lowers transaction costs and improves the capacity of developing countries to supply competitive goods and services to global markets. Recent studies show that transaction costs saved by trade facilitation could range between 2 and 15 per cent of transaction values (OECD, 2001a). Owing, to information technology, among other things, it is now possible to improve transport efficiency dramatically at modest costs, given the political will to reform procedures and confront vested interests. In particular, simplification measures by customs and other agencies can make

an important contribution to realizing development objectives. The introduction of electronic customs clearance systems, risk assessment techniques (as against the inspection of individual consignments), pre-arrival processing and post-release audit all cut time and other costs and reduce the scope for error. By way of example, Chile, at the March 1998 WTO Symposium, estimated savings of $1 million each month through automation and a greater use of risk assessment. Thus, while some countries are concerned over the start-up costs involved in introducing computerization or training in the use of risk assessment, the experience of Chile and others has shown that costs can be recovered over time through greater efficiency and increased tax collection.

Box VII.3. Trade facilitation: what are the concerns?

During a WTO symposium on trade facilitation (March 1998), traders voiced a number of concerns that can be summarized under five headings:

- Excessive documentation requirements;
- Lack of automation and inadequate use of information technology;
- Lack of transparency, with unclear and unspecified import and export requirements;
- Inadequate procedures, especially a lack of audit-based controls and risk-assessment techniques; and
- Lack of cooperation among customs and other government agencies, which thwarts efforts to deal effectively with increased trade flows.

Practical recommendations and guidelines for a trade facilitation strategy cover three major areas of work to foster transparency, predictability and uniformity:

- Harmonization of laws and regulations;
- Simplification of administrative and commercial formalities, procedures and documents; and
- Standardization of transport means: modal infrastructure (related to sea, road, rail and air) including interfaces between different modes of transport (e.g unit loads and handling equipment), commercial practices and services, and information technology.

Source: UNCTAD.

Trade facilitation was added to the WTO's agenda at the first Ministerial Conference in December 1996. The Doha Ministerial introduced a new phase for WTO work on this issue, by providing for negotiations after the Fifth Ministerial in September 2003 and by mandating the Council for Trade in Goods to embark on a comprehensive work programme.[4] The underlying rationale for future negotiations is identified as the recognition of "the case for further expediting the movement, release and clearance of goods, including goods in transit, and the need for enhanced technical assistance and capacity building in this area".[5] The Council for Trade in Goods was mandated to "review and, as appropriate, clarify and improve relevant aspects

of Articles V, VIII and X of the GATT 1994",[6] but also to "identify the trade facilitation needs and priorities of members, in particular developing and least-developed countries". Ministers also committed themselves "to ensuring adequate technical assistance and support for capacity building in this area".

UNCTAD has developed practical solutions to some of these issues, such as the Advance Cargo Information System (ACIS) (box VII.4). Another initiative to reduce the costs of trading goods is UNCTAD's customs reform, modernization and automation programme, ASYCUDA (box VII.5).[7]

Box VII.4. The Advance Cargo Information System

ACIS is a system designed to produce management information to address multimodal cargo transit and transport problems[a]. It is a real-time proactive system providing transport operators with reliable, useful and immediate data on transport operations, including information on the whereabouts of goods and transport equipment. The resulting performance indicators enable management to remedy operational deficiencies and, at the national and subregional levels, provide data for macroeconomic planning of the transport sector. As of mid-2002, 14 countries had benefited from ACIS installation.

A comprehensive evaluation undertaken in 1999 by the Tanzania Railway Corporation (UNCTAD, 2001d) shows that improvements in service and benefits to customers were:

- Wagon movements closely monitored so that cargo is delivered on schedule;
- Ability to inform customers on status and whereabouts of their cargo "live";
- Ability to trace/control wagons so that the supply of wagons to customers is more reliable;
- Possibility of detecting wagons not paid for;
- Possibility of calculating daily revenue; and
- Availability of daily freight-loading statistics.

Source: UNCTAD.

a For more information on ACIS, visit www.unctad.org/en/techcop/tran0105.htm.

Box VII.5. UNCTAD's ASYCUDA Programme

By mid-2002, the ASYCUDA computer software programme had been installed in over 80 developing countries and economies in transition (including 31 LDCs)[a]. It is designed to streamline and reduce customs forms and procedures. It is based on, and incorporates, recommendations and standards (including those related to the Document Layout Key), codes and other standards of the Economic Commission for Europe (ECE) and the World Customs Organization (WCO). The basic idea is to rid the customs system of outdated procedures and practices and incorporate international practices and standards, so as to increase a country's customs revenue through reduced costs and faster clearance.

In 1999, a new module of the ASYCUDA++ version was developed to manage customs transit procedures. The implementation of ASYCUDA in the Philippines, funded by a World Bank loan, has been a show case model, with outstanding results: revenue collection has significantly increased, and release time has been reduced from four days to four hours (an average for consignments routed through the green customs channel). The project was part of a large modernization project that was driven and monitored by the management of the Philippine's Bureau of Customs. UNCTAD is now phasing out its involvement, as the Bureau of Customs has taken on full ownership and responsibility for ASYCUDA operations in the country.

Source: UNCTAD.

a For more information on ASYCUDA, visit www.asycuda.org.

D. Export performance requirements

One approach taken by some Governments to promote more exports by foreign affiliates is to impose export performance requirements. The intention of such requirements is to make foreign affiliates export a larger share of what they produce than they would otherwise do.[8] Export requirements are permissible under WTO law and notably the TRIMs Agreement.[9] However, linking these requirements to the receipt of an advantage, for example in the form of an incentive, will be prohibited for developed countries and generally for middle-income developing countries as of 1 January 2003 (for details, see section VII.E). Moreover, some regional and bilateral agreements explicitly restrict the use of export performance requirements.[10] In addition, under the TRIMs Agreement, WTO members are not allowed to impose trade-balancing requirements that limit an enterprise's imports to an amount related to the volume or value of the locally produced goods that it exports.

There is limited evidence on the use and impact of export requirements (UNCTC, 1991). A recent survey of European business executives indicated that more than half the respondents had encountered export requirements when investing abroad, notably in Brazil, China, India and Mexico, but also in other locations (Taylor Nelson Sofres Consulting, 2000). The same study concluded that these requirements were considered an obstructive barrier by companies, particularly by those in the automotive industry.

Export performance requirements have been applied to remedy market-information failure and sluggishness on the part of TNCs to seize export opportunities, as well as to deal with restrictive business practices (Moran, 1998). Some evidence suggests that export requirements have been effective in changing the investment behaviour of TNCs. By making market access contingent on exporting, for example, some TNCs appear to have reconsidered the orientation of their activities in favour of exporting. Significant impact from government intervention of this kind has been observed in the automotive, electronics and petrochemical industries in various countries (Moran, 1998). Sometimes, different combinations of export performance requirements and incentives have helped to induce one or more "first mover" firms to reorient their international production systems and establish new export platforms. The success of the first mover may trigger similar decisions by other firms in the same industry and lead to additional export-oriented FDI in the same location.[11] A study analysing the determinants of export orientation of foreign affiliates of United States and Japanese TNCs in 74 countries, in seven branches of manufacturing over the 1980-1994 period, found that export commitments imposed at the time of entry had a significant positive effect (Kumar, 1998; 2002). The study concluded that export requirements imposed by host Governments may prompt foreign affiliates to seek product mandates from their parent firms. Such requirements may be particularly effective in host countries with large domestic markets that have the potential to absorb all the output.

This is not to say, however, that the imposition of an export performance requirement is advisable under all circumstances. First, it is clear that TNCs generally dislike performance requirements; so there is a risk of losing investment. Second, given the limitations under WTO law, countries may find it increasingly difficult to use this policy measure (section V.B.3.b). To maintain profitability under a "biting" export-performance requirement, a firm has to be compensated in some way to keep the share between exports and local sales above the limit judged commercially justified by the company. Hence, while export requirements can take different shapes and forms, they have normally been tied to some kind of advantage in order not to deter inward FDI.[12] In an increasingly competitive environment, and in the light of WTO rules, the use of mandatory export performance requirements is more and more likely to give way to policy dialogue and informal persuasion.

Empirical evidence on the use and impact of export requirements remains too limited to draw conclusive policy lessons. More analysis is needed to ascertain the extent to which such requirements are currently used and the effect they might have on FDI inflows and on the export performance of foreign affiliates.

E. Incentives

1. The evolution of incentives

In most countries that have successfully attracted and benefited from export-oriented FDI, the provision of incentives has been an integral part of government policy (the Irish experience is presented in box VII.6). Whether in connection with special economic zones or independently of them, Governments have offered financial, fiscal and other incentives to attract firms to certain locations.[13]

The degree to which incentives actually influence investment decisions is debatable. Various studies suggest that to the extent they do, it is mainly in export-oriented projects with a number of equally plausible locations (UNCTAD, 1996; 2000a; Wells and Allen, 2001; Morisset and Pirnia, 2001). In such cases, incentives may be what tips the balance. They may also help to attract a "first-mover investor" who is then followed by competitors or suppliers (Moran, 1998). Obviously, incentives-based competition risks a "race to the top" in incentives and a "race to the bottom" in regulatory measures, as countries feel obliged to keep up with one another. Such a race increases the risk that the cost of incentives might exceed the return to society.

In other situations, incentives are specifically targeted to correct market failures. The prime example is the presence of externalities. In industries characterized by economies of scale, rapid innovation and technology spillovers, subsidies are tempting (Doraisami and Rasiah, 2001). Incentives may also be offered to compensate for deficiencies and distortions in a host country's business environment (e.g. poor infrastructure and red tape). This is one of the main rationales for setting up EPZs (section VII.F).

The main argument against incentives is related to the costs involved. These include the opportunity costs of granting incentives instead of using the same resources for improving the infrastructure or educating the workforce. While remedying failure, an incentive may create others.[14] It is also difficult to assess whether an incentive has been welfare enhancing. First, it is hard to determine whether an investment was in fact the result of an incentive; second, even when this can be ascertained, the quantification of positive effects (on exports, technology transfer and employment) and negative effects (in increasing economic distortion and the potential for corruption) remains difficult.[15]

The use of incentives in promoting FDI has evolved over time. Developed countries frequently employ financial incentives (such as outright grants), whereas fiscal measures are more common in developing countries (which cannot afford a direct drain on the government budget) (UNCTAD, 1996; 2000a).[16] While comprehensive and comparative data on the use of subsidies in developed countries are unavailable for the most recent years, a rising trend, at least until the mid-1990s, has been documented (UNCTAD, 1996; Moran, 1998; Oman, 2000). There are also more recent examples of subsidies involving large sums of money offered by national or sub-national Governments to foreign investors with export-oriented projects. For example, in 1996 Dow Chemical received a subsidy of $6.8 billion for an investment in the petrochemical industry

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Box VII.6. The evolving use of incentives in Ireland

In the Irish development strategy, investment incentives have complemented efforts at improving the economic fundamentals. Profits from exports were originally not taxed. Subsequently, in 1981, a corporate income tax rate of 10 per cent was introduced that applied to manufacturing and certain service industries, as well as to firms located in the International Financial Services Centre or the Shannon Free Zone. The 10 per cent tax rate will apply to existing investors until its expiry in December 2010 when a universal 12.5 per cent rate will apply.

As in many other developed countries, the Government has also provided financial grants. These have not been tied to exports but, since the Irish market is very small, projects in any case, have a high export content. Such grants have been negotiated on a project-by-project basis, with larger grants generally given to high-value-added and more skill-intensive projects. Projects located in less developed areas also receive bigger grants. R&D grants have been used to help existing companies move up the value chain and become more strategically important to the parent company.

Source: UNCTAD, based on O'Donovan, 2001.

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in Germany, amounting to $3,400,000 per job to be created (table VII.1). In Alabama (United States), Honda Motor Co. received an incentive package in 2000 worth $158 million to help build a $400 million mini-van assembly plant, initially employing 1,500 people; and in March 2002, Hyundai received a $118-million bond issue to begin producing vehicles in 2005 (www.timesdaily.com, 3 April 2002). This evidence suggests that the trend observed until the mid-1990s continued thereafter.

Incentives have been an important element in the FDI strategies of some developing countries as well, especially those successful in attracting export-oriented FDI. These countries have often adopted a targeted approach to attracting FDI. Variations of "pioneer" company status or targeted "thrust industries" are frequently used as a basis for the granting of benefits. Singapore has used carefully targeted incentives to encourage the expansion of TNCs in certain industries, notably high-technology ones and those performing specific export-oriented activities. The country offers a 10-year tax holiday to "pioneer firms" producing goods and services not currently produced in Singapore, and expanding companies may enjoy up to 20 years of tax holidays (FIAS, 2001). In Malaysia, companies that meet the requirements for "pioneer status" enjoy a full tax holiday for five years (box VII.7). Costa Rica similarly uses investment incentives in its efforts to attract export-oriented FDI.[17] In China, foreign affiliates (including export-oriented ones) are offered various tax incentives. The corporate income tax on enterprises is generally 33 per cent. Foreign affiliates with contracts for operating periods of 10 years or more are exempt from income tax for two years after making profit, and eligible for a further 50 per cent reduction in their tax liability for the three subsequent years. Moreover, for foreign affiliates in special

economic zones and economic and technological development zones, the income tax rate is 15 per cent.[18] Technologically advanced foreign affiliates may, upon the expiration of the enterprise income tax exemption and reduction period, enjoy a further 50 per cent reduction in the income tax rate for three years. Similarly, export-oriented foreign affiliates may, upon the expiration of the enterprise income tax exemption and reduction period, benefit from a 50 per cent reduction of their income tax if the value of their exports exceeds 70 per cent of the total production value. However, if these companies are located in a special economic zone or an economic and technological development zone and already pay an income tax rate of 15 per cent, the tax will be levied at 10 per cent.[19]

Some developing countries offer incentives only for the production and export of non-traditional goods, to encourage a shift towards new industrial activities. In Uganda, the Government has specified that wholesale and retail commerce, public relations and food processing, insofar as they are aimed solely at the domestic market, will not receive incentives. In Bangladesh, export-oriented projects in the garments and agro-based industries are given preferential interest rates, and can obtain tax holidays of 5-7 years depending on their location. Industrial undertakings not enjoying a tax holiday can obtain an accelerated depreciation allowance. Bangladesh also offers specific incentives to export-oriented activities. A large number of developing countries provide preferential treatment to investment projects related to the export of services, notably in the tourism industry, and, less frequently, business services including regional headquarters, international procurement offices, distribution centres and the like (UNCTAD, 2000a).

Table VII.1. Estimated incentives for selected FDI projects, 1995-2000

(Dollars)

Year of incentive	Country of project	Investor	Amount per job
1995	Brazil	Volkswagen	54 000-94 000
1995	United Kingdom	Siemens	51 000-190 000
1996	Brazil	Renault	133 000
1996	Brazil	Mercedes-Benz	340 000
1996	Germany	Dow	3 400 000
1996	Israel	Intel	300 000
1996	United Kingdom	Hyundai	190 000
1996	United Kingdom	LG	48 000
1997	India	Ford	420 000
1997	United States	Shintech	500 000
1997	United States	Daimler Benz	100 000
1998	United Kingdom	Ford	138 000
1998	United Kingdom	IMR	63 400
1998	United Kingdom	Dupont	201 000
1998	United States	Toyota	69 000
2000[a]	Canada	Mosel Vitelic	450 000
2000[a]	Israel	Intel	350 000
2000	United States	Honda	105 000

Source: Adapted from Loewendahl, 2001b, pp. 108-109.
[a] Planned

Box VII.7. The use of investment incentives in FDI targeting: the Malaysian experience

The Government of Malaysia has continuously revised the structure and nature of its incentives in the light of evolving national development objectives. By broadly linking incentives and the provision of specialized infrastructure facilities to skills development and technology upgrading, the Government was able to exploit changes in TNC strategies to improve Malaysia's competitive position. The evolution of the system of incentives in Malaysia reflects a shift from general investment promotion to a focus on high-technology sectors and industrial clusters.

- In 1958, the Pioneer Industries Ordinance provided tax holidays for periods ranging from 2 to 5 years to import-substituting industries producing a wide range of consumer and resource-based manufactured goods (such as food, beverages and tobacco, printing and publishing, building materials, chemicals and plastics).
- In 1968, the Investment Incentives Act (IIA) replaced the Pioneer Industries Ordinance: additional incentives were introduced to encourage employment creation, dispersal of industries and investment in capital-intensive projects. Incentives provided were Pioneer Status, Labour Utilization Relief and Locational Incentives (that offered tax relief for 2-10 years), and Investment Tax Credit that offered tax credits ranging from 25-40 per cent of capital expenditure.
- In the 1970s, FDI promotion focused on labour-intensive and export-oriented industries. Ten EPZs were established by Malaysia's state governments to attract FDI seeking low-cost sites for the assembly and export of electronic products, as well as textiles. These zones offered subsidized infrastructure, expedited customs formalities, and freedom from import duties and export taxes. EPZ firms are also exempted from equity-sharing guidelines. The 1975 Licensed Manufacture Warehouse programme extended this treatment to individual factories set up outside the zones.
- In 1986, the Promotion of Investments Act (PIA), replacing the IIA, introduced a new incentives regime to attract more export-oriented FDI. This included:
  - A pioneer status (PS) tax holiday of five years, with an extension of five more years for selected activities, including export-oriented FDI and FDI in the electronics sector;
  - An investment tax allowance (ITA);
  - An abatement of adjusted income for manufactured exports, small-scale companies, compliance with Government policy on capital participation and employment in industry, and the use of domestically-produced materials in the manufacture of exports;
  - An export allowance;
  - A double deduction of expenses for the promotion of exports; and
  - An industrial adjustment allowance.

Other non-fiscal incentives included:
  - Import-duty exemptions for exporting firms (outside EPZs and licensed manufacture warehouse programmes), under the Customs Act; and
  - Foreign equity ownership: 100 per cent allowed in projects exporting at least 80 per cent of production; majority allowed in projects exporting at least 50 per cent of production.

- In the 1980s, a Reinvestment Allowance (RA) was introduced under the Income Tax Act to encourage investors, both foreign and local, to reinvest in the country. Initially, the RA was in the form of a deduction from statutory income of an amount equivalent to 25 per cent of qualifying capital expenditure incurred for purposes of reinvestment (defined as expansion of production capacity, diversification, upgrading, automation, modernization of production facilities), up to a maximum of 70 per cent of statutory income.
- In the 1990s, in response to massive FDI inflows, the Government revised the incentives regime to place greater emphasis on the quality of investment, as measured by technology content and value added. The goal was to transform assembly-dominated industries into more locally integrated industrial clusters.
- In 1990, tax incentives were extended to "regional operational headquarters" which provided management, logistics and coordination services to foreign affiliates in the region.
- In 1991, an overall review of incentives was undertaken aiming at streamlining incentives, strengthening revenue generation, and encouraging the development of competitive and resilient industries. The incentive system was modified to make its impact more selective and effective. Major changes were:
  - The scope of the PS tax holiday was reduced: exemption of only 70 per cent of statutory income, and a five year tax holiday;
  - An investment tax allowance was allowed as a tax deduction up to a maximum of 70 per cent of statutory income;
  - Special incentives were introduced to promote high-technology projects, strategic projects, R&D, training, industrial linkages and the development of the Multimedia Super Corridor (more targeted and value-added operations); and

/...

Box VII.7. The use of investment incentives in FDI targeting: the Malaysian experience (concluded)

-   Various abatement schemes, including export incentives were abolished as they were less effective and inconsistent with WTO obligations.

Four performance requirements were used to evaluate applications for PS/ITA: (i) value added of 30-50 per cent; (ii) local content levels of 20-50 per cent; (iii) technology level (as measured by the proportion of managerial, technical and supervisory staff); and (iv) industrial linkages (in the main assessed qualitatively).

- In 1995, labour-intensive projects were de-emphasized and the approval of manufacturing projects was based on capital investment per employee. Manufacturing projects having a capital investment per employee of less than 55,000 Malaysian ringgit were categorized as labour-intensive and would not qualify for manufacturing licences or tax incentives, unless they met one of the following criteria: value added of more than 30 per cent; 15 per cent of workforce in managerial, technical and supervisory positions; location in promoted areas; or projects undertaking promoted activities or manufacturing high-technology products.

High-technology projects in areas of new and emerging technologies (with local R&D expenditure equal to 1 per cent of sales within three years of start-up and 7 per cent of the workforce comprising scientific and technical staff) enjoy a five year tax holiday on 100 per cent of statutory income or an ITA of 60 per cent on qualifying capital expenditure incurred within five years.Specific activities to be promoted under the high-technology designation were: advanced electronics; equipment/instrumentation; biotechnology; automation and flexible manufacturing systems; electro-optics and non-linear optics; advanced materials; optoelectronics; software engineering; alternative energy sources; and aerospace.

- In the late 1990s, the RA was reviewed and made more attractive: the rate of the allowance was then increased to 40 per cent, and subsequently to 60 per cent of qualifying capital expenditure to be offset against statutory income. The period of eligibility for the incentive was restricted to five years, and subsequently extended to 15 years effective from 2002.

- In the period 2000-2002, new incentives and changes introduced included the following:
  - Pre-packaged or customized incentives for high-quality investments (in the form of fiscal as well as non-fiscal incentives);
  - Additional incentives to promote targeted sectors such as food production, machinery and equipment, and resource-based industries; and
  - New incentives to promote key manufacturing-related services such as logistics, market support and centralized utility facilities.

- Other incentives/policies/support facilities available include:
  - Tax deductions for expenditure on training, R&D, environmental protection and information and communication technology;
  - Duty exemptions on imported materials/ components and machinery and equipment;
  - Subsidized industrial land or infrastructure facilities in free zones/licensed manufacturing warehouses/industrial estates;
  - Direct funding mechanisms for high-technology industries (inter alia through venture capital funds and training grants);
  - Liberal foreign equity ownership for export-oriented projects;
  - Expatriate employment; and
  - Incentives for business support operations such as the establishment of operational headquarters, international procurement centres and regional offices/centres.

- In 1993, the Human Resources Development Fund (HRDF), was launched, aimed at encouraging direct private-sector participation in skills development and operating on the basis of a levy/grant system. Manufacturing companies have to contribute 1 per cent of employees' monthly wages to the fund. Employers who have paid the levy will qualify for training grants from the fund to subsidize training costs for their Malaysian employees.

The actual impact of the incentives offered is hard to assess, although it appears that incentives have been an important element in attracting TNCs to Malaysia. Some studies, however, suggest that the Government has not had enough capacity to survey and monitor firms' actual performance in fulfilling the technology-related conditions for investment promotion (Felker, 2001). Others estimate the potential revenue foregone in the late 1980s to be in the order of 10 per cent of manufacturing value added, or 1.7 per cent of GDP, and argue that, while the incentives may have helped to attract export-oriented investment and generate employment, some incentives are likely to have been overgenerous, and perhaps even redundant in some cases (Doraisami and Rasiah, 2001).

Source: UNCTAD, based on information provided by the Malaysian Industrial Development Authority (MIDA); Felker, 2001; Doraisami and Rasiah, 2001.

In order to encourage more exports by existing investors, some tax authorities have taken a flexible approach to tax-deductible expenses. For example, both Malaysia and Singapore have allowed double deduction for tax purposes of international travel, marketing and related expenses (UNCTAD, 2000a). In addition to fiscal and financial incentives, there are also regulatory incentives, such as the relaxation of ownership restrictions. In some countries, the acceptable level of foreign equity participation has been linked to the level of export, as in Malaysia before July 1998, (since then the policy has been relaxed).[20] In Thailand, in 1987 the Government relaxed the requirement of Thai majority ownership in projects exporting 80 per cent of their output, and allowed full foreign ownership. In 1998, in the aftermath of the Asian financial crisis, equity restrictions were suspended for all new FDI projects (Felker and Jomo, 2000).

2. WTO rules on export subsidies

There is one important requirement in the WTO system that will have a significant impact in the immediate future on the use of incentives in promoting export-oriented FDI: to make their domestic regulation conform with the WTO rules, many developing country members will have to adapt some of their current incentives schemes in the light of the prohibition of export subsidies contained in the WTO Agreement on Subsidies and Countervailing Measures (the SCM Agreement).[21] While such measures have been prohibited in developed-country members since the SCM Agreement came into force, the prohibition will apply after 31 December 2002 to all developing-country members not referred to in Annex VII of the SCM Agreement and not granted an extension of the transition period.[22] The complexity of the issue and its relevance for strategies to attract and upgrade export-oriented FDI make it important to review the rules in some detail.

Article 1 of the SCM Agreement defines the concept of "subsidy" and establishes disciplines on the provision of subsidies. The definition contains three basic elements: (i) a financial contribution (ii) by a Government or any public body within the territory of a WTO member (iii) which confers a benefit. All three of these elements must be satisfied

in order for a subsidy to exist. Fiscal incentives may constitute subsidies within the meaning of the SCM Agreement as the concept of "financial contribution" includes "government revenue ... otherwise due [that] is foregone or not collected (e.g. fiscal incentives such as tax credits)". Financial incentives, such as the direct provision of funds through grants and subsidized credits, may also constitute subsidies, as the concept of a "financial contribution" includes a "government practice [that] involves a direct transfer of funds (e.g. grants, loans and equity infusion ...)". Finally, the provision of land and infrastructure at less than market prices may constitute a subsidy, as the concept of "financial contribution" includes "a government provid[ing] goods or services other than general infrastructure, or purchas[ing] goods".

To the extent that subsidies, as defined by the SCM Agreement, are provided on a "specific" basis as defined in Article 2 of the Agreement, they are subject to the SCM Agreement's provisions. There are four types of "specificity" within the meaning of the SCM Agreement:

- Enterprise-specificity: a Government targets a particular company or companies for subsidization;
- Industry-specificity: a Government targets a particular sector or sectors for subsidization;
- Regional specificity: a Government targets producers in specified parts of its territory for subsidization; and
- Prohibited subsidies:[23] a Government targets export goods or goods using domestic inputs for subsidization.

Hence, the two categories of prohibited subsidies are export subsidies and import-substitution subsidies (as defined in Article 3).

a. Prohibited and actionable subsidies

Clearly, investment incentives meeting the definition of a subsidy and granted, contingent upon an investor's export performance are export subsidies prohibited under the SCM Agreement (subject to the special and differential treatment described below). The Illustrative List of Export

Subsidies, provided in Annex I to the SCM Agreement, identifies a number of such measures. For example, the full or partial remission of direct taxes (e.g. income taxes) and social welfare charges, specifically related to exports, is an export subsidy. While the exemption or remission of indirect taxes on the export product, such as value-added tax (VAT) is permitted, the exemption or remission upon export of prior-stage cumulative indirect taxes on certain items (such as capital goods) is also considered an export subsidy. Similarly, while a member may provide remission or drawback of import charges on goods incorporated into an export product, the provision of duty remission on capital goods or on goods not used for the production of the exported product, contingent upon export performance, is an export subsidy. Furthermore, "simplified" drawback schemes which are common in developing countries (e.g. providing a "drawback" that is a fixed percentage of the f.o.b. value of the exports and not linked to the duty actually paid on imported inputs) would likely also be considered to constitute export subsidies, as would the provision by Governments of goods or services to exporters on terms more favourable than those available to producers for the domestic market.

A number of other "specific" investment incentives other than those meeting the definition of prohibited subsidies are also subject to the disciplines of the SCM Agreement. In other words, even if not prohibited, incentives that meet the definition of a specific subsidy and that cause "adverse effects" as defined by the SCM Agreement may be challenged through the WTO dispute settlement mechanism and potentially subject to compensatory action (be "actionable").

Most subsidies, such as production subsidies, fall into the "actionable" category. Actionable subsidies are not prohibited, but are subject to challenge in the event that they cause adverse effects to the interests of another WTO member. There are three types of adverse effects:

• Injury to a domestic industry caused by subsidized imports into the territory of the complaining WTO member. This is the sole basis for domestic countervailing action.

• Serious prejudice. This usually arises as a result of adverse effects (e.g. export displacement) in the market of the subsidizing WTO member or in a third-country market. Thus, unlike injury, it can serve as the basis for a complaint related to harm to a WTO member's export interests.

• Nullification or impairment of benefits accruing under the GATT 1994. Nullification or impairment arises most typically when the improved market access presumed to flow from a bound tariff reduction is undercut by subsidization.

Again, however, developing country members are entitled to special and differential treatment that shields them from certain challenges.

It should be noted that the SCM Agreement is an agreement on trade in goods listed in Annex 1A of the WTO Agreement and thus only regulates subsidies in the goods sector. (The General Agreement on Trade in Services (GATS) does not deal specifically with export subsidies – see box VII.8). Moreover, the disciplines of the SCM Agreement may not be easily applied to all kinds of investment incentives, in particular locational incentives. The SCM Agreement is concerned with trade in goods, which, by definition, occurs only after an investment has been made. Two areas – "adverse effects" and remedies – illustrate this point. Under the SCM Agreement, the adverse effects of subsidization generally relate to distortions of trade flows of subsidized goods (i.e. the extent to which subsidies increase the level of exports from, or reduce the level of imports into, the subsidizing country member and thereby harm producers of like goods in another member). In the context of investment, because the granting of an incentive may pre-date production, often by a considerable period, such an after-the-fact measurement of adverse effects is unlikely to exercise discipline over the provision of investment incentives. A similar issue arises in the context of remedies. By the time production and export have commenced, incentives aimed at attracting investment may have ended. In this situation, neither a recommendation to withdraw or modify a subsidy under the WTO dispute settlement mechanism, nor the application of a countervailing duty to the exported goods in the context of a domestic action, would be likely to "undo" or change an investment that has already been made.

Box VII.8. The treatment of subsidies in the GATS

GATS treats investment as one of the four modalities for the provision of services. Article I:2 of the GATS defines "trade in services" as encompassing four modes of supply, including the supply "by a service supplier of one Member, through commercial presence in the territory of any other Member" (mode 3). The term "commercial presence" is defined in Article XXVIII(d) as "any type of business or professional establishment, including through (i) the constitution, acquisition or maintenance of a juridical person, or (ii) the creation or maintenance of a branch or a representative office, within the territory of a Member for the purpose of supplying a service". As a consequence, the GATS covers forms of establishment which correspond to the notion of FDI.

The only provision of the GATS specifically dealing with subsidies is Article XV. It recognises that, "in certain circumstances, subsidies may have distortive effects on trade in services", and negotiations have begun with the aim of developing "the necessary multilateral disciplines to avoid such trade-distortive effects". "The negotiations shall also address the appropriateness of countervailing procedures." Any rules on distortive subsidies would have to be very complex and would present severe practical enforcement difficulties. And, indeed, subsidies relating to the supply of services "in the exercise of governmental authority" could not be disciplined (art. I.3 (b)). Furthermore, "such negotiations shall recognize the role of subsidies in relation to the development programmes of developing countries and take into account the needs of Members, particularly developing country Members, for flexibility in this area".

As it stands, the GATS does not contain any definition of subsidy. If any member "considers that it is adversely affected by a subsidy" it can request consultations which "shall be accorded sympathetic consideration" (art. XV). The GATS thus permits subsidies as such, including subsidies contingent upon the export of services and other investment incentives. However, the most-favoured-nation obligation applies to subsidies because they are covered by the definition of "measure". National treatment commitments also apply, unless they specifically exclude subsidies. In the service sectors for which commitments have been made, and subject to any conditions or qualifications set out in its Schedule, a WTO member must therefore administer its subsidy schemes in a manner that accords the services and service suppliers of other members treatment no less favourable than that accorded to its own like services and service suppliers.

The Working Party on GATS Rules deals with this issue. A few examples of potentially trade-distortive subsidies have been mentioned in areas such as cultural, educational and health services, transport, telecommunications, postal and financial services, construction, software and information services, advertising, tourism, export credits and R&D.

In the light of the close interaction between trade in goods and services, two further points are worth noting. First, the provision of subsidized services to producers of goods is disciplined by the SCM Agreement. In the Illustrative List on Export Subsidies (Annex I to the SCM Agreement) "internal transport and freight charges on export shipments" are mentioned, and "the provision by governments... of services for use in the production of exported goods". Second, the fact that a subsidy pertains to the services sector does not necessarily mean that other WTO agreements, and in particular the SCM Agreement, do not apply.[a] A WTO member cannot circumvent the prohibition of export subsidies, for instance, by casting the subsidies as relating to the services provided by domestic firms in the context of an outward processing operation. Since the subsidies are contingent upon the export of the assembled products, the SCM Agreement would apply.

Source: UNCTAD.

[a] The Appellate Body confirmed this in EC-Banana when it stated that: "Certain measures could be found to fall exclusively within the scope of the GATT 1994, when they affect trade in goods as goods. Certain measures could be found to fall exclusively within the scope of the GATS, when they affect the supply of services as services. There is yet a third category of measures that could be found to fall within the scope of both the GATT 1994 and the GATS. These are measures that involve a service relating to a particular good or a service supplied in conjunction with a particular good. In all such cases in this third category, the measure in question could be scrutinized under both the GATT 1994 and the GATS" (WT/DS2/AB/R, para. 221)

Specific subsidies within the meaning of the Agreement can also give rise to the imposition of countervailing duties against the subsidized imported goods by WTO members according to their own domestic legislation. Part V of the SCM Agreement sets forth certain substantive requirements that must be fulfilled to impose a countervailing measure, as well as in-depth procedural requirements regarding the conduct of a countervailing investigation and the imposition and maintenance in place of countervailing measures. The main requirement is that a member may not impose a countervailing measure unless it determines that there are subsidized imports, there is injury to a domestic industry, and there is a causal link between the subsidized imports and the injury.

b. Special and differential treatment

As mentioned above, the so-called Annex VII countries (namely, LDCs and certain other WTO members listed in the Annex until such time as their GNP per capita reaches $1,000) are exempted from the prohibition of export subsidies. Other developing-country members have an eight-year period (i.e. until the end of 2002) to phase out their export subsidies (and they cannot increase the level of their export subsidies during this period). With respect to import-substitution subsidies, LDCs have eight years, and other developing-country members five years, to phase out such subsidies. There is also more favourable treatment with respect to actionable subsidies.[24] However, developing countries, other than Annex VII countries, that attain "export competitiveness" for a particular product have two years from the date they achieved export competitiveness to phase out export subsidies for such a product, while Annex VII countries have eight years. "Export competitiveness" is deemed to exist when the export share in the particular product reaches 3.25 per cent of world trade for two consecutive years.

Furthermore, Article 27.4 of the SCM Agreement provides for the possibility of extending the eight-year time limit. It states that:

"If a developing country Member deems it necessary to apply such subsidies beyond the 8-year period, it shall not later than one year before the expiry of this period enter into consultation with the Committee [on Subsidies], which will determine whether an extension of this period is justified, after examining all the relevant economic, financial and development needs of the developing country Member in question. If the Committee determines that the extension is justified, the developing country Member concerned shall hold annual consultations with the Committee to determine the necessity of maintaining the subsidies. If no such determination is made by the Committee, the developing country Member shall phase out the remaining export subsidies within two years from the end of the last authorised period."

This conditional possibility of extension has created some uncertainty with regard to the future application of many incentive schemes frequently used, for instance in the context of EPZs and similar zones.

c. Doha results

In the context of discussions on the implementation of the Uruguay Round agreements and the preparation of the WTO Ministerial Conference in Doha in 2001, negotiations took place on the need to put the extension of the transition period on a firmer basis. The issue was positively resolved with the Decision of 14 November 2001 taken at Doha on Implementation-related issues and concerns[25] which: "Having regard to the particular situation of certain developing-country Members, directs the Committee on Subsidies and Countervailing Measures to extend the transition period, under the rubric of Article 27.4 of the Agreement on Subsidies and Countervailing Measures, for certain export subsidies provided by such Members, pursuant to the procedures set forth in document G/SCM/39."

The decision provides a specific procedure for the extension of export subsidies by certain developing-country members on an annual basis until 31 December 2007 (plus two further years to complete the phase-out). The implementation procedure set forth in the Decision shows a certain preference for small countries and weak exporters by establishing eligible programmes.[26] Programmes enjoying an extension shall not be modified to make them more favourable than they were as of 1 September 2001. Hence, this standstill provision does not allow developing-country WTO members to introduce new schemes. The Annex VII country members, however, can introduce new schemes, as they enjoy a full exemption from the prohibition relating to export subsidies. Twenty-nine members have requested an extension of the transition period for their export subsidy programmes.[27]

3. Implications for the future use of incentives

What are the options facing host countries that wish to use incentives to attract export-oriented FDI? As far as the members referred to in Annex VII are concerned, the use of export subsidies remains unrestricted under WTO law. Thus these members can, if they so desire, continue to use export subsidies, including those provided in EPZs (see below). For other developing-country members with the exception of those that

obtain an extension of the transition period beyond 1 January 2003, export subsidies (related to goods) will have to be eliminated as required under the SCM Agreement. And even those obtaining an extension of the transition period cannot increase the level of their export subsidies, are subject to the prohibition in respect of particular products if they achieve export competitiveness in such products, and will need to consider what to do once the transition period expires.[28]

The challenge for developing countries wishing to use incentives as part of their efforts to promote export-oriented FDI is to weigh carefully the benefits and costs involved. Subsidies should not be used as an isolated measure to attract export-oriented FDI, but rather as a part of a broader "policy package". In countries in which incentives have played a role in efforts to promote inward FDI, they have typically complemented a range of other measures such as those aimed at enhancing the level of skills, technology and infrastructure. To compensate for major deficiencies by offering incentives may not always be a wise strategy as it increases the risk of public funds being spent on projects that do not offer the externalities needed to warrant the incentives in the first place. Without efforts to improve the business environment to make it more conducive to investment and the upgrading of the production of existing foreign affiliates, as well as to embed FDI into the local economy through linkages, the risk increases that investors will leave as soon as the incentives expire.

The discrepancy noted between developed and developing countries in the mix of financial and fiscal incentives they use may in effect make developing-country WTO members more exposed to countermeasures under the WTO rules. While both forms of subsidy are covered by the SCM Agreement, there are certain important distinguishing features worth noting:

• Financial incentives given as cash grants up front may be particularly attractive from the perspective of a recipient, as they cut the initial costs of an investment and thus lower the risk of a project. By contrast, a corporate tax holiday or a reduced tax rate will have an impact only when an investment starts generating profits. In industries characterized by rapid change and high volatility (as in the case of the semiconductor industry),

the benefit from tax holidays is much more uncertain as compared with an up-front cash grant.

• It may be more difficult to show that an outright cash grant given as a locational incentive to an (export-oriented) activity has had an adverse effect on the interests of another WTO member. Since fiscal measures, on the other hand, last over an extended period of time, there may be more opportunities for other WTO members to assess the impact of a fiscal incentive and seek remedies.

• There is additional uncertainty from the fact that a member may be requested to withdraw a tax holiday deemed inconsistent with the provisions of the SCM Agreement. By contrast, the Agreement does not, in general, provide for the repayment of subsidies.[29]

Moreover, while the SCM Agreement considers market access problems relevant in meeting the adverse effects test (thus allowing for a remedy), it does not consider investment access problems equally relevant. A country may thus not be able successfully to bring a complaint about locational incentives that divert investment flows away from its market (Beviglia Zampetti, 1995; Brewer and Young, 1997). Hence many of the subsidies offered by countries for new investment projects, which come in the form of locational incentives under the headings of R&D, regional development or other goals, and which appear to be more widely used by developed economies, may not be tackled under the SCM Agreement.

From the perspective of using incentives to facilitate an upgrading of export activities, there may be a case for making incentives offered to foreign affiliates or domestic firms "non-actionable" in the WTO if and when they can be shown to have a clear developmental impact in developing countries (*WIR01*, p. 171).[30] This may involve, for example, the creation of more and deeper linkages, the provision of technology, and the training of local suppliers and their personnel. However, to avoid free riding, firms receiving incentives would have to commit sufficient resources on a long-term basis. In some host countries, TNCs have helped remove obstacles and facilitated upgrading (e.g. by way of training and the development of infrastructure) in collaboration with the relevant level of government (*WIR01*).[31]

In general, an open and transparent process, with regular reporting and accounting of the costs of the incentives used and accompanied by an assessment of their effectiveness, reduces the risk of unwanted effects (Hughes and Brewster, 2002). In this context, the type of incentive offered can also be considered. For example, infrastructure improvements (which also benefit domestic firms) may be better than fiscal incentives (which only kick in when an investment is on-stream), and these in turn may be better than financial incentives (which are offered up front). Moreover, when granting incentives, Governments can consider including a "clawback" provision stipulating that the incentives awarded are to be returned if requirements are not met.

An alternative to the provision of tax incentives may be an overhaul of the tax package as a whole, including statutory rates, depreciation and other deduction rules, loss-carry-forward rules, inflation accounting (if relevant), fairness and ease of administration, and, finally, any tax credits, allowances, holidays and other exemptions. Some economies have abolished specific tax incentives and, instead, chosen to offer a low corporate tax rate across the board. Hong Kong, China, is a classic example. It offers no tax holidays to export-oriented foreign investors, but its basic tax rate is 16.5 per cent and imports come in duty-free. Other examples include Estonia (box VII.9), Lebanon, Mauritius and, more recently, Ireland (box VII.6, Morisset and Pirnia, 2001; O'Donovan, 2001).

Box VII.9. Estonia: attracting export-oriented FDI by providing an enabling environment

Estonia represents an interesting case of a small economy that has managed to attract a large amount of export-oriented FDI, partly by pursuing export-friendly policies but without the use of special incentives for targeted industries.

Soon after regaining its independence, the Government of Estonia decided to abolish all customs duties and to rely primarily on a uniform, flat tax for both corporate and personal income, and a value-added tax. The elimination of customs duties greatly simplified and speeded up customs procedures, reducing costs and risks for firms involved in international trade. The Government eschewed efforts to target specific industries through either subsidies or investment incentives, which avoided problems of bureaucratic discretion and the distortion of investment decisions. For established companies (foreign or domestic), the Government offers grants and soft loans for infrastructure development and retraining of employees (outside the capital city area) and for R&D activities. These financial supports can amount to up to 75 per cent of investment costs.

The country has developed an open regime for FDI, abolishing most restrictions and approval requirements for FDI, and allowing foreign ownership of land. In the latter half of the 1990s, the Foreign Investment Law was repealed and FDI policy relied instead on the Company Law, the Securities Law and related legislation to govern all investment, without distinction between foreign and domestic investment. In addition, the country introduced liberal immigration procedures for foreign investors, in order to reduce bureaucratic delays and uncertainties. As a result, the FDI regime in Estonia became one of the most open and non-discriminatory in the world.

Estonia has been a very strong performer in both export growth and FDI inflows. Even after the completion of Estonia's privatization programme, the country has been able to maintain high levels of inward FDI by attracting export-oriented greenfield investments as well as M&As. In 2001, 9 of the top 10 exporters in Estonia were foreign affiliates. Other factors contributing to the favourable conditions offered by Estonia include relatively low-cost but high-skilled labour and its association agreement with the European Union.

While the Estonian Investment Agency (EIA) does not provide targeted incentives, it still engages in targeting. The Agency is currently concentrating on three industries: machine building (subcontracting mainly for the automotive industry), electronics (especially information and communication technology) and services (in particular shared-service centres). Aftercare of existing investors, by supporting their expansion needs and/or helping them develop clusters (the whole value chain approach), is also a priority.

Source: UNCTAD, based on information provided by the EIA and FIAS.

F.   Export processing zones

Since the 1950s, EPZs have became increasingly popular in both developed and developing countries as a policy instrument for the promotion of export-oriented FDI.[32] In fact, most of the "winners" identified in Part Two have established at least one (and usually more than one) kind of EPZ and these accounted for a large share of non-primary manufactured exports in a number of them (box VII.10). As of 1997, about 850 zones of various sorts operated in both developed and developing countries (WEPZA, 1997; ILO, 1998), and the number has increased substantially since. In the developing world, the majority of them are located in Asia.

The concept of "EPZ" encompasses many different types of zones (e.g. free-trade zones, duty-free zones, free-investment zones, offshore zones), reflecting the variety of activities performed in the zones. These include bonded warehousing, export processing, assembling, border or port trade and financial services. However, despite these variations, export-oriented manufacturing has been the main focus of most zones. While zone firms can be domestic, foreign or joint ventures, FDI generally plays a prominent role. Zones can be publicly or privately owned and managed. In the past few years, the number of private zones has been increasing, thus contributing to the overall growth in the number of zones around the world.

In the Philippines, for example, involving the private sector in the development of economic zones helped the Government overcome obstacles related to inadequate funding and a lack of qualified personnel. Since 1995, 40 privately-run economic zones have been established under the Philippines Economic Zone Authority. All costs for the development of roads, utilities, standard factory buildings, waste water facilities and other infrastructure development were borne by private-sector developers. The Philippines Economic Zone Authority handles the provision of incentives. In each of the privately-run zones, it assigns personnel to administer incentives for enterprises registered with the Authority. Between 1994 and 2001, employment in these zones increased from 229,650 to 708,657, and exports expanded from $2.7 billion to $19.5 billion.[33]

One possible definition is to refer to EPZs as fenced-in industrial estates specializing in manufacturing for export and offering their resident firms free-trade conditions and a liberal regulatory environment (World Bank, 1992). Another is to describe them as industrial zones with special incentives set up to attract foreign investors, in which imported materials undergo some degree of processing before being re-exported (ILO, 1998). In any case, EPZs are clearly delimited and enclosed areas of a national customs territory, often at an advantageous geographical location (Madani, 1999) with an infrastructure appropriate for carrying out trade and industrial operations and subject to the principle of customs and

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Box VII.10. The role of EPZs in exports: evidence from selected countries

There is evidence suggesting that EPZs have played an important role in the export performance of many countries. As one expert (Radelet, 1999, p. 14) put it:

"Perhaps the most compelling piece of evidence in support of platforms is that the vast majority of manufactured exports in the successful economies utilized at least one of these facilities. *Simply put, manufactured exports did not expand rapidly in any country except through one of these facilities.* In Taiwan [Province of China], and [Republic of] Korea, for example, essentially all manufactured exports were either produced in a zone or a bonded warehouse, or used duty exemption/drawback systems. The vast majority of China's manufactured exports come through

the special economic zones. In Malaysia, as much as 75% (in 1979) of all manufactured exports were produced just in EPZs, (and the share still exceeds 55%); most other manufactured exports go through bonded warehouses or use duty exemptions (Sivalingam, 1994). Over 95% of Mauritius' manufactured exports are produced in EPZs. In Kenya, 75% of manufactured exports use at least one facility, with the vast majority depending on the duty exemption system. Exports from Mexico's maquiladoras account for over 50% of total manufactured exports, and a much larger share of manufactured export growth. In the Dominican Republic EPZ exports account for 80% of all exports, and almost all manufactured exports (Warden, 1999a and 1999b)."

Source: Radelet, 1999.

fiscal segregation. Typically, customs services are streamlined and red tape is kept to a minimum, often through one-stop shopping for permits and investment applications. Licensed enterprises within the zones produce exclusively or mainly for foreign markets. Incentives frequently available in EPZs include:

- Duty drawbacks or exemptions from import duties on raw materials, intermediate inputs and capital goods used in the production of exported products;
- Exemptions from the payment of sales tax on exported products as well as on all goods and services domestically purchased and used in their production;
- Tax holidays, tax rebates or reduced tax rates on corporate income or profits, linked to the export performance of companies or to the percentage of exports in total production; and
- The provision of subsidized services such as land, office space, utilities (water, electricity, etc.) and other facilities.

Bonded factories or warehouses share some of the characteristics of EPZs. To reduce the likelihood of fraud caused by selling duty-free imports in the domestic market, firms are required to post some guarantee. As in the case of EPZs, bonded factories are now often allowed to sell some of their production for domestic consumption.[34] In

that case, they are asked either to pay duty on the inputs used or duty as applicable on the final goods. A large number of bonded factories are found in economies such as Hungary, Kenya, Malaysia, Mauritius, Pakistan, Taiwan Province of China, and the Republic of Korea, where they have been quite successful in promoting exports. In Taiwan Province of China, for instance, bonded factories are also common in science-based industrial parks (Jenkins and Kuo, 2000).

The nature of EPZs is evolving and definitions (unless broad) do not capture the dynamics of the phenomenon. As already noted, in recent years, the export requirement has been relaxed in many countries, thus allowing for significant domestic sales. More domestic companies are now established in the zones and efforts are being made by Governments to encourage more linkages between foreign affiliates and domestic firms, as well as to encourage training of local employees and development of technical and technological infrastructure.

Experience shows that EPZs can be successful in earning foreign exchange, increasing employment and developing export competitiveness (boxes VII.11 and VII.12). However, the performance of EPZs depends very much on other policies, policies that go

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Box VII.11. FDI in some developing country EPZs

Data on FDI in EPZs exist for only a small number of countries. Judging by the experience of some ASEAN countries, which had 130 EPZs at the end of 2001 (ASEAN Secretariat, 2002),[a] the relationship between the location of foreign affiliates and the location of EPZs seems, in general, to be weak. However, there are some exceptions. In the Philippines, the share of FDI flows to EPZs rose from 30 per cent of the total in 1997 to 81 per cent in 2000. In Bangladesh also, EPZs are known to have attracted considerable FDI in flows in 2000, $54 million out of the $170 million in total FDI inflows were registered in the EPZs in Chittagong and Dhaka (JETRO, 2002)[b].

In Latin America, the maquiladoras received 31 per cent of the total manufacturing FDI in Mexico between 1994 and 2001.[c] No similar data are available for other countries in the region. However, in terms of value added, maquila plants (both domestic and foreign) in six Central American countries (Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Dominican Republic) accounted for between 9 per cent (Guatemala) and 43 per cent (Dominican Republic) of the industrial GDP in 1996. Foreign firms were responsible for between 35 per cent (El Salvador) and 84 per cent (Dominican Republic) of the capital of maquila plants (Buitelaar and Padilla, 2000). In Costa Rica, some three-quarters of all foreign affiliates are located in EPZs.[d]

Source: UNCTAD.

[a]   FDI under the auspice of the Philippine Economic Zone Authority, the Subic Bay Metropolitan Authority and the Clark Development Corporation are considered FDI in EPZs.
[b]   Increases in the cumulative value of FDI between August 2000 and August 2001. FDI in the Monla EPZ is also included but it is still very small.
[c]   "Maquila" in Mexico is an administrative status awarded by the Government to companies engaged in an industrial or service process for merchandise of foreign origin, imported temporarily for transformation or value added, and subsequent re-export.
[d]   Information obtained from the Proyecto de Desarrollo de Proveedores in Costa Rica.

beyond incentives and aim at enhancing human resources and creating the infrastructure necessary to attract and upgrade export-oriented FDI. There are zones that have been successful, as in China, the Dominican Republic, Mauritius and Singapore. On the other hand, there are many that have failed to attract substantial investment and where outlays have far exceeded social benefits. In Kenya, for instance, EPZs established at great expense have lain mostly idle. The small size of the regional Common Market for Eastern and Southern Africa, inadequate infrastructure in Kenya, the appreciation of the domestic currency and rising labour costs have together resulted in much smaller volumes of exports than expected (Jenkins and Kuo, 2000). However, there was an improvement in the performance of Kenyan EPZs in 2001, following the introduction of the AGOA initiative (Kenya, EPZA, 2001).

A comprehensive cost-benefit analysis of zones is difficult to undertake. In particular, some potential long-term and structural contributions to the local economy are more difficult to appraise as they derive from dynamic gains that can only be realized over time and through deliberate effort, such as learning and absorbing foreign technologies and transforming the pattern of economic growth from an inward-looking to an outward-looking one (Johansson, 1994; Ge, 1999a). Furthermore, costs such as environmental degradation and foregone revenues are difficult to quantify and may reveal their extent only over time. An additional cost and danger is the risk of "leakage" of duty-free goods into the domestic market. This has the potential to undermine the development of backward linkages by preventing local enterprises from emerging or it can even destroy local enterprises.

In terms of human capital, EPZs can contribute to the domestic economy if foreign investors engage in substantial training and if the workplace encourages learning by doing, as in Singapore and the Philippines (Rhee, Katterbach and White, 1990; ILO, 2001). This increases the productivity of the local work force. Furthermore, learning can also occur at the managerial and supervisory level, thus potentially fostering local entrepreneurship. This is important since firms in developing countries often lack the production and

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Box VII.12. EPZs in Hungary

Foreign affiliates account for about 80 per cent of the total exports of Hungary. Many of the TNCs investing in Hungary have chosen to locate their export activities in one of the "industrial free trade zones" in the country. Unusually, the investing firms, not the national authorities, choose the location for a zone. As a result, the Hungarian industrial free-trade zones are more geographically dispersed than EPZs in other countries, although investors have preferred to establish their zones in the most advantageous sites. In 2001, 63 per cent of them were located in north-western Hungary, close to the Vienna-Budapest highway, 26 per cent to the south-east of Budapest, mostly along the M3 motorway, and 11 per cent in the metropolitan zone of Budapest. Within four years (1997-2001), the number of such zones increased by 40 per cent, to 125. Practically all firms operating in these zones are affiliates of electronics, software or automotive TNCs, including Audi, Opel, IBM, Nokia, Philips and Flextronics.

The first legal framework for the industrial free trade zones was established by the 1988 Law XXIV/1988 on Foreign Investment. Such zones are separated from the national customs territory by a licence issued by the authorities. All firms that meet the criteria are eligible without discrimination. Activity in a zone is also subject to licensing. The zones enjoy a special status for customs, trade and foreign-exchange regulations. In contrast to some other countries, Hungary allows duty- and VAT-free imports to the zones, not only of materials and parts but also of equipment and investment goods used for manufacturing. Only goods not directly used in manufacturing are subject to duty. Firms can hold their capital and keep their books in foreign currency but are subject to Hungarian taxes, with the exception of VAT. Since January 1993, at least 2000 m^2 of territory are required to establish an industrial free-trade zone and permission from the Ministry of Finance is necessary for selling or buying a zone.

The zones have been among the engines of export growth and modernization in Hungary. Success in attracting some leading TNCs has recently been followed by a wave of first-tier suppliers. The zones usually draw fully foreign-owned greenfield investments. Of the exporting foreign affiliates, those located in the zones have shown particularly strong trade dynamism. Between 1996 and 2001, their exports grew more than five times as compared to a doubling of Hungary's exports as a whole. In 2001, the zones accounted for 44 per cent of the country's total exports, more than 90 per cent of which go to the European Union (annex table A.VI.2).

Source: UNCTAD, based on Antalóczy, 1999.

marketing know-how required to enter world markets.

However, since EPZ production processes often involve low skills and low technology, particularly in the garment and footwear industries and in the assembly of electronic components and light machinery goods, training is limited. Countries that have encouraged low-quality FDI in the hope that human capital could be improved once they have attracted sufficient productive resources, have found it difficult to escape the low-value-added trap. Low-quality FDI involves firms with few linkages with the domestic sector, low potential for technology spillovers and short-term horizons. Such firms invest little in productivity and skills development (ILO, 2001). Moreover, the learning that does take place may be limited to industrial discipline and routine. Labour-intensive processing industries generally compete on price, and labour is often seen more as a cost to be contained than as a resource to be developed. While wages tend to be higher, on average, in the zones than in the rest of the economy, there is considerable variance, and conditions of work are at times affected by lax labour, safety and health regulations. Employers in EPZs generally use pay-incentive schemes that entail longer hours of more intensive work than non-EPZ enterprises (box VII.13). In these zones, trade unions are generally barred from organizing to improve the conditions of workers (ILO, 1998; *WIR99*, box IX.5). In contrast, zones with coherent and comprehensive policy frameworks, provisions for human resource development, good working and living conditions, and stable labour relations attract quality investors (ICFTU, 1999).

EPZs may furthermore contribute to the upgrading of physical capital. Successful zones are those for which Governments have created an efficient and competitive industrial infrastructure. While this may only be available to a limited number of firms (foreign or domestic), it can have important demonstration and catalytic effects. A successful and well-integrated zone can also be considered a laboratory for, and a spur to, policy reform. As confidence is gained, the zone framework can be replicated in other parts of the country and the early investors start to move out of the original zone. For instance, the successful development of the initial zones in China prompted demands for similar zones elsewhere.

In addition, pressures, not just for spreading but also for deepening policy and institutional reforms, are likely to mount over time. For instance, demand for trade-related financial services may rise, forcing the financial sector to perform. These forces may in turn lead countries onto a path towards greater economic efficiency (Ge, 1999a). For instance, in Malaysia, EPZs are thought to have had a favourable impact on the regulatory framework and the business environment (Sivalingam, 1994).

The industrial composition of producers within EPZs and other zones is also evolving. Whereas they used to be dominated by low-technology, labour-intensive, manufacturing activities, many are now moving into new areas. Among the most advanced of the new kinds of zones is the one in Kaohsiung, Taiwan Province of China; it began with simple sewing in 1967, expanded to fashion garments, then to electronics assembly and then to electronic design, testing and R&D, and is now moving into the business of hosting corporate headquarters and global logistics centres (OECD, 2001a). Indeed, among developing-country WTO members, this trend may be accelerated by the WTO disciplines in the area of export subsidies.

More specifically, as mentioned above (section VII.E), apart from the developing-country members listed in Annex VII of the SCM Agreement (namely LDCs and members listed in Annex VII, until their per capita GNP income reaches $1,000), WTO members will have to eliminate export subsidies as of 1 January 2003, with the exception of those granted an extension of the transition period.[35] And even those granted an extended transition period need to consider what to do once it expires.[36] Subsidies linked to the export of services are, in principle, not prohibited and this may favour a shift towards service-oriented activities. The possibility of offering other specific incentives that do not meet the definition of prohibited subsidies remains but, as noted above, any "specific" subsidy that causes adverse effects to another WTO member's interests is actionable and potentially subject to remedial action.[37] In particular, subsidized exports to another WTO member may be subject to countervailing measures if they cause, or threaten to cause, material injury to a

domestic industry that provides a product in the importing member. The provision of such subsidies therefore remains risky.[38]

The options available to developing-country members not included in Annex VII are: (i) to maintain incentives for EPZ companies but eliminate the conditionality of restricting sales in the domestic market; or (ii) to establish for all domestic companies a new system of incentives that is not contingent upon export performance in either law or fact (Roessler, 2001, pp. 33-34).

Moreover, WTO rules permit the use of border tax adjustments. Thus, EPZs can continue to exempt exports by companies in these zones from indirect taxes (such as sales taxes), border taxes (e.g. consular fees) and import charges. Duty drawbacks and duty exemptions are thus permissible. While duty drawback schemes may not include capital goods used to produce exported goods, many smaller WTO members may have little or no domestic production of such capital goods, and thus could consider simply lowering or eliminating import duties on such goods.

Box VII.13. EPZs and the "race to the bottom"

As EPZs have become an important part of export-oriented industrialization, critics have charged that competition for export-oriented FDI using EPZs contributes to a "race to the bottom", as it involves a deliberate lowering of social and environmental standards. More specifically, along with incentives such as tax holidays, duty-free imports and good infrastructure, EPZs offer abundant and relatively cheap labour, sometimes with exemptions from national regulation on labour protection.

Substandard labour conditions can emerge from the repression of rights such as freedom of association and collective bargaining, and from unregulated terms and conditions of employment. These situations in the zones may result from a lack of enforcement by Governments of labour laws or regulations that, in principle, apply in the zones as well as in the rest of the country, or from exemptions or variances in labour laws or regulations applicable in the zones compared with those applied elsewhere (ILO, 2001, Part I, paras. 151-55). Responses from a sample of 125 Governments, workers and employers' organizations reported that many countries apply the same labour laws in EPZs as elsewhere (ILO, 2001); another report found, however that, in practice there were severe restrictions on rights to organize in EPZs (ILO, 2000a).

The issue of practices in EPZs was recently covered in the ILO Seventh Survey on the Effect Given to the Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy (ILO, 2001). In one Latin American country, workers reported that enterprises in EPZs have destroyed ecosystems and lowered relative wages. In general, worker views were that there has been no transfer of skills from foreign affiliates operating in the country. The ILO's Committee on Freedom of Association has also examined cases involving blacklisting and massive dismissals that highlight the unwritten understanding that unionization is unacceptable in zones.[a] The country has since set up a specialized Labour Inspectorate to protect freedom of association in the zones. In one African country, government views were that foreign enterprises have taken advantage of the weak enforcement of safety and health regulations to operate at a much lower level of standards. EPZs in the country were granted exemptions from health and safety (which are due to be removed) and this acted as an incentive to investors. In another African country, government views were that workers in EPZs receive less favourable treatment than elsewhere and that women working in these zones had to work overtime and at night (ILO, 2001).

By contrast, the views of an Asian Government were that foreign investors played a key role in identifying skills needed so that these could be developed through training programmes. There has also been a skills transfer between foreign affiliates and domestic industry in that country. Foreign affiliates have initiated measures to improve existing practices in EPZs, for example through a gains-sharing programme that provides benchmarks for foreign and local companies operating in the same industry line (ILO, 2001).

The fact that some countries view limiting labour and environment standards as an incentive to FDI in EPZs may indicate a need for collective action involving a variety of actors to limit the risk of a possible "race to the bottom".

Source: UNCTAD, based on information provided by ILO and Christian Aid.

[a] See ILO, CFA No.1658 (1993) and No. 1732 (1994) both available on http://ilolex.ilo.ch:1567/

Finally, efforts should be made to provide improved industrial infrastructure and services and a skilled labour force. As this involves cost, countries may still see an advantage in creating and maintaining special designated areas – as islands of efficiency and as steps towards expanding such facilities more widely in the country as the economy develops. Traditional EPZs can thus become redundant over time and transform themselves into industrial parks or other formations more integrated with the rest of the economy. Indeed, such zones may eventually become parts of industrial clusters (section VII.G), especially when combined with additional efforts to build institutional capacity and upgrade human skills.

Notes

1 See USITC, 1999 and europa.eu.int/comm/taxation_customs/customs/customs.htm.

2 Some developing countries also extend preferences to other developing countries and LDCs, for instance, under the Global System of Trade Preferences.

3 For more information on these and other preferential trade schemes see www.unctad.org/gsp/index.htm; www.agoa.gov; www.ustr.gov/regions/whemisphere/camerica/cbi.shtml; europa.eu.int/comm/development/cotonou/agreement_en.htm.

4 The text agreed on by Ministers in Doha states: "… negotiations will take place after the Fifth Session of the Ministerial Conference…on the basis of a decision to be taken, by explicit consensus, at that Session on the modalities of negotiations" (WTO Document WT/MIN(01)/Dec/17, para. 27).

5 Ibid.

6 These articles deal with transparency, public information, formalities associated with importing and exporting, and goods in transit.

7 ASYCUDA is short for Automated SYstem for CUstoms Data.

8 Obviously, an export performance requirement would be redundant if a firm were to export the same or more without government intervention.

9 An important ruling by a panel in a GATT dispute settlement proceeding between the United States and Canada clarified this point in 1984. In Canada, a panel considered a complaint by the United States regarding certain types of undertakings that were required from foreign investors by the Canadian authorities as conditions for the approval of investment projects. These undertakings pertained to the purchase of certain products from domestic sources (local content requirements) and to the export of a certain quantity or percentage of output (export performance requirements). The Panel concluded that the local content requirements were inconsistent with the national treatment obligation of Article III:4 of the GATT but that the export

performance requirements were not inconsistent with GATT obligations.

10 Examples include the United States-Israel FTA (1985); NAFTA (1994); the Canada-Chile FTA (1997); the Mexico-Nicaragua FTA (1997); and the FTAs between Mexico, El Salvador, Guatemala and Honduras (2000) (UNCTAD, 2001f)

11 For the case of Taiwan Province of China, see Wade, 1990.

12 Advantages awarded in this context include tariff protection against import competition, duty rebates on imported inputs, fiscal and financial incentives.

13 Generally, financial incentives include grants, subsidized credits and insurance at preferential rates; fiscal incentives are tax holidays, reduction or exemption of taxes on profits, capital, labour, sales, value added, particular expenses, imports and exports; and other incentives range from subsidized infrastructure to market preferences and other preferential treatment (UNCTAD, 1996; 2000a).

14 Detailed studies of the use of tax incentives to promote investment in Brazil, Indonesia, Malaysia, Mexico, Pakistan, Thailand and Turkey found that such instruments often led to distorted investment decisions, partly because they discriminated between firms that showed losses in early years and those that did not, and between relatively capital-intensive activities and relatively labour-intensive activities (Moran, 1998).

15 A study of the impact of tax incentives in Indonesia found that, although they may have helped to attract some FDI into the country, that might otherwise not have come, the costs to the taxpayer were far in excess of the benefits of the additional investment (Wells and Allen, 2001).

16 The most commonly used fiscal incentives in developing countries are tax holidays and reductions in the standard corporate income tax rate. These are followed by duty exemptions and drawbacks, accelerated depreciation, specific deductions from gross earnings for tax purposes, investment and reinvestment allowances, and deductions from social security contributions (UNCTAD, 2000a).

17 For information on a new incentive scheme in Poland, see box III.10 (chapter III) of this *WIR*.

18 The same applies to enterprises that are deemed high- or new-technology enterprises.

19 Income Tax Law of the People's Republic of China for Enterprises with Foreign Investment and Foreign Enterprises (effective 1 July 1991); Rules for the Implementation of the Income Tax Law of the People's Republic of China for Enterprises with Foreign Investment and Foreign Enterprises (effective 1 July 1991).

20 The old policy stated that companies exporting 80 per cent or more of their output were allowed to be fully foreign-owned; companies exporting 20-79 per cent of their sales could have up to 79 per cent of the equity in foreign hands; and other companies could have up to 30 per cent equity. The policy will be reviewed again after 31 December 2003 (Cheng, 2001).

21 In the WTO context, the term country includes any separate customs territory member of the WTO.

22 The countries referred to in Annex VII are the LDCs and those WTO members listed in Annex VII(b) until their GNP per capita reaches $1,000. Apart from the LDCs, the list includes Bolivia, Cameroon, Congo, Côte d'Ivoire, Dominican Republic, Egypt, Ghana, Guatemala, Guyana, India, Indonesia, Kenya, Morocco, Nicaragua, Nigeria, Pakistan, Philippines, Senegal, Sri Lanka and Zimbabwe. In addition, Honduras was included in the list through a rectification in 2001. WTO members agreed at Doha "that Annex VII(b) to the Agreement on Subsidies and Countervailing Measures includes the members that are listed therein until their GNP per capita reaches US$1,000 in constant 1990 dollars for three consecutive years" (see WTO document WT/MIN(01)/Dec/17, para.10.1).

23 Prohibited subsidies are deemed to be specific (Article 2.3 of the SCM Agreement).

24 For example, certain subsidies related to developing-country members' privatization programmes are not multilaterally actionable. With respect to countervailing measures, developing-country members' exporters are entitled to more favourable treatment with respect to the termination of investigations where the level of subsidization or volume of imports is small.

25 WTO Document WT/MIN(01)/Dec/17.

26 "Programmes eligible for extension pursuant to these procedures ... are export subsidy programmes (i) in the form of full or partial exemptions from import duties and internal taxes, (ii) which were in existence not later than 1 September 2001, and (iii) which are provided by developing country Members (iv) whose share of world merchandise export trade was not greater than 0.10 per cent ..., (v) whose total Gross National Income ("GNI") for the year 2000 as published by the World Bank was at or below US$ 20 billion, ..." WTO Document G/SCM/39.

27 The following WTO members have made requests on the basis of the procedures in G/SCM/39: Antigua and Barbuda; Barbados; Belize; Bolivia; Costa Rica; Dominica; Dominican Republic; El Salvador; Fiji; Guatemala; Grenada, Honduras; Jamaica; Jordan; Kenya; Mauritius; Panama; Papua New Guinea; Sri Lanka; St. Kitts and Nevis; St. Lucia; St. Vincent and the Grenadines; Suriname; Uruguay. Other requests under Art. 27.4 have been made by Colombia; El Salvador; Panama; Thailand and Uruguay (see WTO Document G/SCM/40/rev.2 of 13 March 2002).

28 It should also be recalled that neither the original transition period nor its extension will protect a member from the possible application of countervailing measures in respect of subsidized exports.

29 For an interesting, albeit isolated, jurisprudential development admitting the possibility of repayment, see Australia – Subsidies provided to producers and exporters of automotive leather – Recourse to Article 21.5 of the DSU by the United States, WTO/DS126/RW, 21 January 2000.

30 A proposal to consider subsidies linked to the pursuit of development goals non-actionable has been noted in the decision on "Implementation-related issues and concerns" adopted at the WTO Doha Ministerial Meeting (WTO Document WT/MIN(01)/Dec/17, para. 10.2).

31 Training programmes with the active participation of TNCs to upgrade the product quality and productivity of domestic companies have been set up in Indonesia, Ireland, Malaysia, Singapore and Wales (United Kingdom) (*WIR99*; *WIR01*).

32 For a discussion of EPZs, see, Wall (1976), Ping (1979), Pollack (1981), Jayawardena (1983), Spinanger (1984), Sklair (1985) and Rondinelli (1987). More specific studies include Warr (1984) about a zone in the Republic of Korea; Leinbach (1982) and Warr (1987) about the EPZs in Malaysia; Kumar (1987) about the zones in India; and Wideman (1976) about the zones in the Philippines. Germidis (1980), Basile and Germidis (1984), UNIDO (1980) and UNCTAD (1985) describe EPZs in developing countries, including in Brazil, Egypt, Mauritius, Mexico, Peru, Tunisia and Sri Lanka. Jenkins, Esquivel and Larraín (1998) review the experience of EPZs in Central America. Studies of the special economic zones in China include Chang (1986), Chu (1985), Crane (1990, 1993), Fewsmith (1986), Harding (1987), Howell (1993), Kleinberg (1990), Li and Zhao (1992), Oborne (1986), Solinger (1984), Stoltenberg (1984), Sit (1986, 1988), Sklair (1985), Wong (1987) and Ge (1999b).

33 Information provided by the Philippines Economic Zone Authority.

34 As early as 1983, maquiladora firms in Mexico were allowed to sell up to 20 per cent of their production on the domestic market (Buitelaar and Padilla Perez, 2000). In Mauritius, companies are not located in specified areas and may sell up to 20 per cent of their production duty-free, subject to authorization by the Industry Ministry (WTO, 2001a).

35 Arguably, the last sentence of Article 27.4 of the SCM Agreement would allow WTO members, which had requested but been denied an extension two additional years to phase out their export subsidies. If this is correct, then such members would have until 1 January 2005 to phase out their export subsidies.

36 Most of the members that have made a request for extension have done so in relation to export-subsidy programmes used in the context of EPZs.

37 Although the only subsidies granted or maintained by a developing-country member that may be subject to a dispute settlement challenge based upon serious prejudice are export subsidies.

38 However, as noted above, in the context of locational grants not, de jure, contingent upon export, and when the granting of an incentive pre-dates production and export, it may be more difficult to prove adverse effects of the incentives on trading partners.

CHAPTER VIII

TARGETED PROMOTION

A. Targeting export-oriented FDI

Investment promotion can play an important role in the process of attracting export-oriented FDI in line with a country's development objectives. It covers a range of activities, including investment generation (e.g. image-building, general marketing, investor targeting), investment facilitation, aftercare services and policy advocacy to enhance the competitiveness of a location (Wells and Wint, 1990; Wells, 1999; Loewendahl, 2001a). This section addresses one of the key motives for Governments to engage in investment promotion: to remedy inefficiencies in the market for information. No matter how competitive a host location is, it will not attract export-oriented FDI unless investors are aware of the opportunities it offers.

As of today, the majority of countries have already moved from the *first generation* of investment promotion – which mainly involves the opening up of an economy to FDI – to the *second generation*, in which a Government decides to "market" its location actively, notably by setting up an investment promotion agency (IPA) (*WIR01*). The number of IPAs increased substantially in the 1990s: currently there are over 160 national IPAs and well over 250 sub-national ones (UNCTAD, 2002d). To increase the efficiency of investment generation and, in particular, to enhance the chances of attracting export-oriented FDI, a number of IPAs go further and utilize at least part of their FDI promotion resources for investor targeting. It is this *third generation* of more focused promotion strategies that is discussed in this section, with special emphasis on attracting export-oriented FDI. Third-generation promotion can be an effective policy tool, but it is not an easy task and involves certain risks. These are addressed specifically at the end of this section. Other aspects of investment promotion, including investment facilitation, aftercare services and policy advocacy will be discussed in subsequent sections.

1. Why target?

Targeting can be defined in different ways. In principle, it involves the focusing of promotional resources on attracting a defined sub-set of FDI flows, rather than FDI in general. Targeting is by no means a new phenomenon. Some countries, notably Singapore (box VIII.1), Ireland, the Netherlands and regions of the United Kingdom have practised it for some time, with much success.[1] However, it is only recently that targeting has become a more widely accepted tool among IPAs. Costa Rica is perhaps the best-known recent example in the developing world. Among LDCs, the IPAs of Bangladesh, the United Republic of Tanzania and Uganda, for example, have all developed investor-targeting strategies. Why have they done so?

First and foremost, a targeted approach can help countries achieve strategic objectives related to such aspects as employment, technology transfer, exports and cluster development, in line with their overall development strategies, especially when the attraction of export-oriented FDI is seen as an integral part of such strategies. Effective targeting involves a comprehensive approach to attracting investment that can contribute to development and enhance the competitiveness of a location. It also requires the adoption of government policies that underpin the specific marketing activities and a coordination of the relevant government agencies, including the IPA, in order to define investment priorities and the package of advantages offered in the framework of an overall development strategy.

A second reason for engaging in investor targeting to attract export-oriented FDI (other than resource-seeking FDI) is the increased competition for this kind of investment. Because TNCs typically consider

Box VIII.1. Singapore: an early mover in targeting export-oriented FDI

Singapore's successful multi-decade programme of targeting export-oriented FDI traces its origins to the late 1960s. After independence in 1965, Singapore realized that a development strategy of import-substitution industrialization, with FDI attraction focusing on market-seeking FDI, would not be a recipe for success. As part of an investment attraction strategy targeting export-oriented FDI, the Government set up the Economic Development Board (EDB) and gave it significant financial resources (corresponding to more than 4 per cent of GDP) to recruit qualified and well-paid professional staff to implement a strategy of attracting export-oriented FDI. The EDB became a "one-stop-shop" with the authority to coordinate all activities related to industrial competitiveness and FDI. This involves, among other things, policy formulation, the provision of incentives, and the creation of industrial estates to guide foreign investors into targeted activities.

The breakthrough came when Texas Instruments, after four months of discussions with the EDB, set up a semiconductor plant in the country in 1968. Texas Instruments' decision sent a signal to other electronics companies to consider Singapore as an investment location. By the end of the 1990s, there were more than 50 companies involved in the Singapore semiconductor industry, most of which were foreign-owned, employing some 21,000 staff. As the economy developed and wages increased, the EDB has gradually shifted its focus towards more sophisticated activities. More recently, special programmes (including designated incentive packages) have been launched to make Singapore an attractive base for regional marketing, distribution and service, and for regional headquarters. These targeting efforts have been complemented by various initiatives to enhance the availability of highly skilled labour and technological capabilities.

Sources: UNCTAD, based on Yew, 2000; Te Velde 2001; Lall, 2000a; Mathews, 1999.

a broader set of potential investment locations for export-oriented FDI, the need for a focused approach is particularly relevant. Investment promotion strategies need to reflect the changing corporate strategies that are driving firms to adopt geographically and functionally more specialized production systems (chapter II). It is no coincidence that many of the countries most successful in targeting are relatively small. Larger economies, such as Brazil, China, India and Mexico, may benefit both from being better known to foreign investors and from offering a substantial domestic market, which has the advantage of adding economies of scale to the production for export. For smaller and less well-known economies, targeting is more important to attract export-oriented FDI (Wells, 1999). This is not to say that relatively large countries do not use targeting too. However, it is often the case, as in the United Kingdom, the United States and India, for example, that the actual targeting is undertaken in such countries primarily at the sub-national level.

A third reason relates to cost-effectiveness. A focused approach to attract export-oriented investment is likely to be less costly, vis-à-vis the results achieved, than one in which an IPA attempts to attract new investment in a more ad hoc fashion. Many IPAs have realized that general image-building, involving advertising and participation in trade fairs, can be a waste of resources unless it is done as part of a well-defined strategy to attract a specific kind of FDI. There are of course costs associated with investor targeting. In fact, some of the IPAs that have been practising targeting for a long time – such as those in Ireland and Singapore – have had very large budgets at their disposal. However, there does not appear to be a close correlation between the size of a budget and the share devoted to targeting. The point is rather that the more targeted the effort, the greater the chances that the information provided is actually relevant to the recipients' decision-making. As the experience of Kyrgyzstan shows, a targeted effort can lead to results even with limited resources and under less than attractive conditions (box VIII.2).

2. What to target?

Once an IPA has decided to use targeting as part of its strategy to attract export-oriented FDI, the next challenge is to determine what industries, activities, countries, companies and, ultimately, individual managers should be targeted. The starting point for the selection process is a careful assessment of the strengths of a location – a country or a part of it – as a base for export production.

Box VIII.2. Targeting investors in a specific niche: sun-dried tomatoes in Kyrgyzstan

Being a small, poor and land-locked country, Kyrgyzstan has a difficult starting position for attracting export-oriented activities. To compound the problems in attracting FDI, all investment incentives had been eliminated to increase the tax base. Through technical assistance projects, Goscominvest, the IPA, developed a first-class website and good promotional materials. Despite these initiatives, it was not "on the radar screen" of most foreign investors and had insufficient funding for outbound missions, advertisements in business publications and broad-based image-building. In response to these problems, it developed an investor-targeting strategy. Interestingly, even though Kyrgyzstan had a comparative advantage in such industries as meat and wool production, attracting FDI to these industries was deemed to be impractical for various reasons.

Vegetables faced a somewhat different problem. Despite limited arable land, vegetables produced in the southern valley of Kyrgyzstan are of high quality. An expert from the Food and Agriculture Organization of the United Nations (FAO) had evaluated the country's tomatoes as the most nutritious and best-tasting of all the countries studied by the FAO. Still, exporting to neighbouring Uzbekistan was impossible because of trade restrictions and a dual exchange-rate system. Transport costs and long transport routes by land foreclosed markets in the Russian Federation and Europe for fresh produce, except by air freight at a considerable cost. The use of poor-quality tinplate for canning, and glass bottles, prohibited exports of processed vegetable products. Thus, even though high-quality tomatoes sold for 4 cents a kilo in the market, this comparative advantage could not be translated into competitive advantage on export markets.

The project finally identified two agricultural products with investment potential: sun-dried tomatoes and wild mountain herbs that grew in abundance throughout Kyrgyzstan's mountain ranges. Goscominvest staff sent information on the investment opportunities, such as supply availability and comparative costs, to the specific companies identified as potential investors in the Investor Roadmap project via the Internet. Four companies responded favourably and visited Kyrgyzstan. Within six months, investment commitments had been secured from two companies based in Europe totalling several hundred thousand dollars.

Source: UNCTAD.

a. *Identifying comparative advantages*

The purpose of this assessment is to benchmark a location against competing ones to identify its main relative strengths and weaknesses. This is important to increase the chance that efforts to promote export-oriented FDI result in development gains, as well as to reduce the risk of promoting areas in which a country is unlikely to be successful in attracting FDI. Countries with better knowledge of their comparative situation stand a better chance of developing a competitive "package" that can match the assets controlled by foreign investors. Such an assessment also helps Governments to identify areas in which policy changes may be needed to make the business environment more attractive and more conducive to benefiting from export-oriented FDI. However, to identify opportunities to attract or upgrade export-oriented FDI, countries also need to take into account the key factors affecting the location of production in different industries. This assessment can be undertaken at the national, sub-national, industry, activity or even project level. The discussion here concentrates mainly on the national level.[2]

A natural starting point for assessing a country's strengths as a base for export-oriented production is to look at the prevailing patterns of exports and imports and the prevailing industry structure. Trade analysis can help identify the comparative advantage of a country. A number of tools developed by the International Trade Centre (www.intracen.org) allow countries not only to assess where their revealed comparative advantages lie, but also which other countries are competing in key product areas, where there is demand for particular products and which product categories are among the most dynamic in world trade (box VIII.3).[3]

Obviously, trade analysis is primarily related to historical performance rather than the potential of a country. Countries also need to consider FDI-related export opportunities in the areas of services and for products that are "up-and-coming" but have not yet been reflected in trade statistics. For the latter, trade analysis can be complemented with an analysis of industry structure, as this may indicate areas in which a country's export potential has not been

Box VIII.3. Trade analysis tools for investment targeting

The International Trade Centre (ITC) has recently developed a number of tools that may be helpful in identifying industries and markets to target for export-oriented FDI. Some of these are available free of charge, whereas others can be subscribed to. According to a joint study by the ITC and the Multilateral Investment Guarantee Agency (MIGA), these tools have recently helped identify such opportunities in six African countries.[a]

Country Maps tools provide useful inputs for assessing comparative and competitive advantage. They are available at www.intracen.org under "Country approach". Two of the tools are of particular interest in assessing trade performance. The *Trade Performance Index* helps to assess trade performance at the country level by providing a general macroeconomic profile and ranking for each industry; essentially a static view of a country's recent export performance. The Index covers 184 countries and 15 different industries. The second tool, the *National Export Performance* provides an overview of the export performance and specialization of countries in terms of the dynamics of international demand. This tool provides a chart divided into four quadrants, with different interpretations in terms of trade promotion and attractiveness for FDI targeted at international markets (see box figure VIII.3.1 for the case of Mozambique). Of particular interest is the so-called "champion industries" quadrant, which displays high-growth sectors in which the country has proven its international competitiveness. Efforts to attract FDI for these products are less risky, as they are national success stories that can serve as reference points. Promotional efforts for these products should aim at broadening the supply capacity. Industries located in the "underachievers" quadrant are also interesting; since the demand side prospects are good, there may be scope for attracting export-oriented FDI into these industries.

Interactive Trade Maps allow users to analyse trade flows and patterns of protection for over 180 countries and territories. This analysis can contribute to the identification of those industries that could attract FDI in a given country and the markets to target. This tool provides on line access to the world's largest trade database and to market-access data obtained from the UNCTAD's Trade Analysis and Information System (TRAINS) database in an interactive environment. It is available on a subscription basis (see

mas@intracen.org) and is largely used by trade support institutions, which can customize the application. It covers more than 95 per cent of world trade.

Market Access Map is a bilateral database of over 30 gigabytes on market-access information. It allows an examination of market-access barriers between any pair of countries included in the database at differing levels of aggregation, ranging from the national tariff line level to total trade. At present, this database covers about 150 countries and territories on the import side and about 200 countries and territories on the export side, and was developed by ITC in collaboration with the Centre d'Etudes Prospectives et d'Informations Internationales (www.cepii.fr) and UNCTAD-TRAINS. It integrates the major instruments of protection (ad-valorem and specific duties, prohibitions, tariff quotas and anti-dumping duties) that are converted into ad-valorem equivalents. For investment targeting, this tool is particularly useful in identifying industries and markets where target countries benefit from a significant preferential margin over potential competitors. It is presently accessible upon request and will soon be available to users through the Global Trade Analysis Project (www.GTAP.org).

Product Market Analysis Portals is a recently developed tool that could contribute to identifying the major players at both home-country and company level. It is a partially subscription-based website (www.p-maps.org) that offers qualitative and quantitative insights into global markets for over 5,000 products traded by 180 countries and territories, providing relevant information for effective international market research. Of particular interest for identifying potential investors are the Business Contacts and Market Intelligence tools. Business Contacts provides links to trade-support institutions, online market places and trade directories and to companies active in a specific industry, including importers, exporters and wholesalers for a particular product in a defined country. Market Intelligence focuses on the qualitative aspects of market research and consists of full-text published market studies, as well as smart links to organizations involved in market research, product standards, packaging, sales promotion or trade fairs. Price News is also available for selected industries. In addition, a trade inquiry service is offered enabling subscribers to seek assistance from ITC on many aspects of international trade.

Source: ITC.

[a] Joint study by ITC and MIGA, in process. The covered countries include Ghana, Mali, Mozambique, Senegal, the United Republic of Tanzania and Uganda.

Box VIII.3. Trade analysis tools for investment targeting (concluded)

Box figure VIII.3.1. Export profile of Mozambique

Change in world market share of Mozambique, 1996-2000
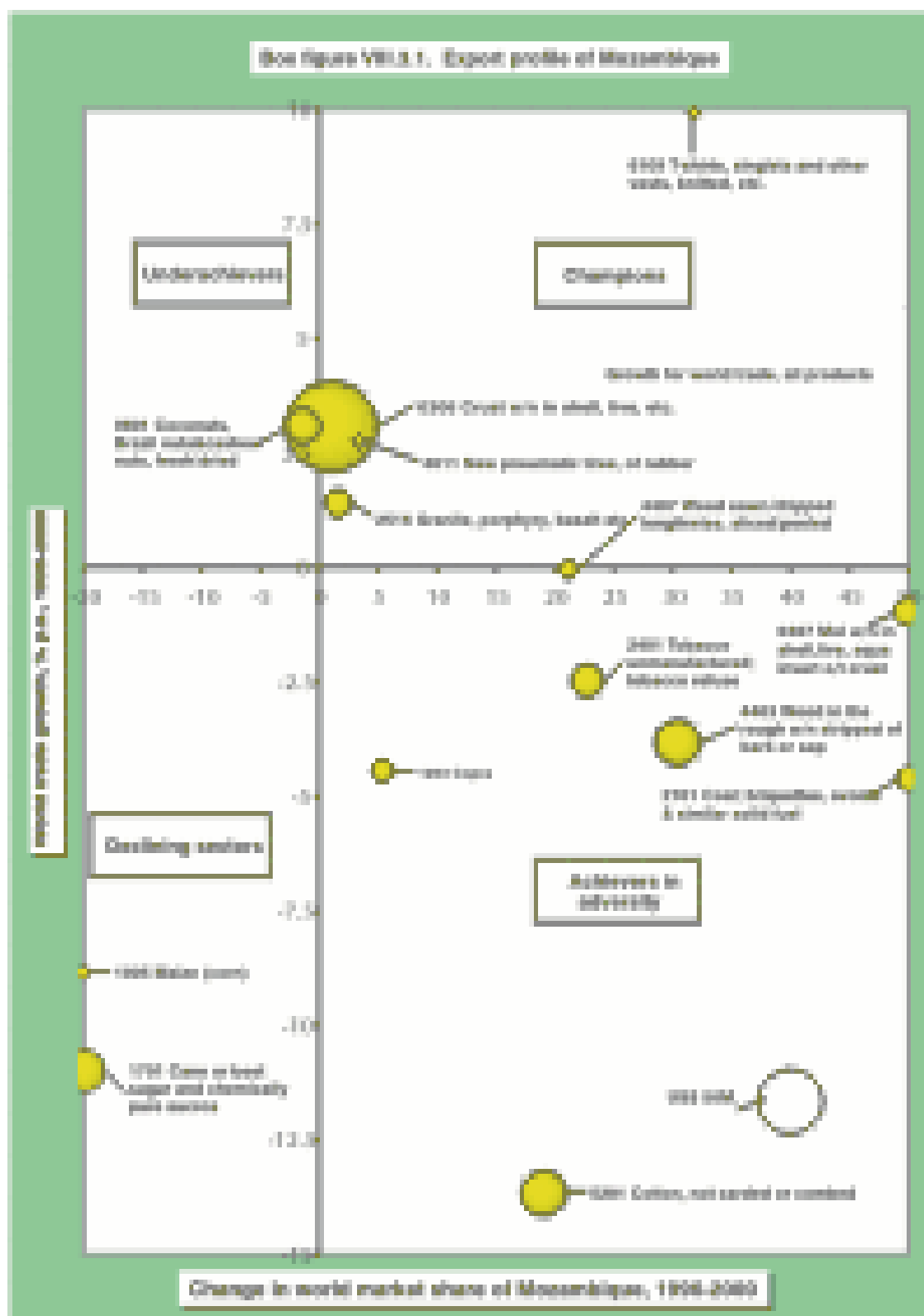
Note: the area of the circles correponds to the export value of the product group for Mozambique. See explanatory sheet for details.

fully exploited. Factors such as the size and growth of different industries, the number of firms in specific industries and the presence of strong supplier capabilities in an industry can be important assets for attracting some export-oriented firms. The same applies to the availability of natural resources (e.g. minerals, forests and energy) and human resources (e.g. skills at different levels of education, universities and R&D) which could be further developed by an inflow of FDI.[4]

However, strong historical export growth in a given activity and/or the presence of domestic capabilities in an industry do not mean that there is necessarily scope for export-oriented FDI. Further analysis is required of the extent to which a certain industry or activity is receptive to additional international investment. A first crude test is to identify foreign investors (as well as domestic companies) that are already exporting from the host country. This can be a good indication of further opportunities for export-oriented FDI, in the form of expansion or new investments. For example, foreign competitors of these affiliates and their suppliers and customers may all represent potential investors. Moreover, the presence of foreign exporters in, and export patterns of, similar locations (e.g. neighbouring countries and those with similar resource endowments) may also reveal opportunities for more export-oriented FDI.

Finally, as part of a preliminary assessment of a location's capabilities, attention should be given to trends and changes in the international business environment that might pose challenges or offer opportunities. This may relate to the trade policy regime of destination markets (section VII.A), the business cycle, technological developments (e.g. increased tradability of services; expanded use of information technology), the business environment in competing locations (tax changes, new trade policies or rising labour costs) and changing corporate strategies that favour the relocation of various activities. Consultations with export-oriented companies (foreign and domestic) can provide critical input into this process.

Obviously, such an assessment can be undertaken at various levels of sophistication and detail, depending on the availability of resources and the importance attached to the exercise. If resources are scarce, it may suffice, as a starting point, to adopt a relatively

inexpensive rule-of-thumb approach, involving:

• An analysis of existing trade and industry patterns;
• Consultations with existing investors (domestic and foreign);
• An analysis of what competing locations are exporting and what they have attracted in terms of export-oriented FDI; and
• An identification of other factors that might attract export-oriented FDI, such as membership of free trade areas, preferential trade schemes, clusters of economic activity and industrial parks.

Even such a preliminary evaluation can provide useful inputs not only into the active promotion of a location as a base for export-oriented production, but also into the longer-term process of making a location more receptive to such FDI and benefiting from it (chapter VII). (For a concrete example of how an assessment of opportunities for export-oriented FDI was done for Albania, see box VIII.4).

Assessing the capabilities should not be just a technical exercise; it needs to be undertaken in a pragmatic way with different weights assigned to the various factors mentioned above depending on the specific circumstances. To become even more useful as an input both to investment promotion activities and as part of the monitoring of the business environment, the assessment should go one step further and evaluate in more detail the "competitiveness" of a location in specific areas (see annex to this chapter for more information).

b. Segmenting the market for export-oriented FDI

Once an assessment has been made, a process of segmenting the market for potential investment can be used to sharpen the focus of the targeted promotion. Investor targeting is not unlike the traditional segmentation activity commonplace in business marketing, in which potential markets are segmented using, for example, *economic, geographic, demographic* and *psychographic* criteria.

An *economic* segmentation can imply focusing on firms that operate in a particular industry or produce goods or services with a particular level of value added, and for which there is a good match with the location's

Box VIII.4. Assessing the potential for export-oriented FDI: the case of Albania

As part of its technical cooperation programme in the area of FDI promotion, UNCTAD prepared, in 2001, an Investor Targeting Strategy for Albania. The study looked at Albania's potential as an FDI destination and explored ways in which this potential could be further developed. It included an analysis of the potential for export-oriented FDI and offered concrete recommendations on ways of identifying and effectively promoting foreign investment in Albania.

The starting point was to classify Albania's largest export products into four groups, based on their trade dynamics. This approach assumes that additional FDI could be attracted into products or industries that are already internationally competitive (box table VIII.4.1). It is a useful first step towards identifying further export potential. In the product areas identified as "champions" and "underachievers", the Government of Albania was advised to implement measures aimed at expanding the national productive capacity of these products by attracting greenfield investment, as well as to continue to privatize relevant State-owned enterprises. For "achievers in adversity", the study advised targeting brand-name international manufacturers known for their niche-marketing skills. Mature products and mature markets required niche-marketing strategies aimed at differentiating products and marketing them to diverse consumer groups. Finally, the Government was advised not to target FDI in areas classified as "losers".

Taking into consideration the package of locational advantages offered by Albania, the Government was also advised to target investors in industries in which Albania could potentially develop international competitiveness. These included consumer electronics, electronic components and small non-electric machinery. The potential of these industries was based on the abundance of low-cost labour in Albania, large numbers of graduates with engineering degrees, the country's industrious work culture, and its short distance from major regional and European markets. In addition, Albania's potential future role as the Adriatic gateway to the Balkans may offer opportunities to TNCs searching for a low-cost site for regional manufacturing.

The assessment also yielded some important insights into some of the challenges facing Albania. Despite some success in attracting FDI during the 1990s, many export-oriented foreign investors interviewed for the study voiced concerns over deteriorating cost differentials between Albania and its neighbours. They pointed to two main areas in which Albania's cost advantages were diminishing: rising total labour costs (including wages, taxes and social charges) and high costs of imported capital goods, machinery and raw materials, owing to the prevailing structure of Albania's duty and value added taxes, and ineffective tax-reimbursement mechanisms. Finally, the investors noted that the cost of operating in Albania, in terms of the time and money required to deal with administrative obstacles and inefficiencies, had also risen. The Government was advised to address these issues, as they were adversely affecting the ability of Albania to attract export-oriented FDI, as well as to make further investments in the country's infrastructure and education system.

Source: UNCTAD and UNDP, 2001.

Box table VIII.4.1. Albania's export products, 1995-1999

	Products in which Albania is losing market shares in world trade	Products in which Albania is gaining market shares in world trade
Products for which export growth is above average	*Underachievers* Beech wood lumber and related articles	*Champions* Men's cotton pants and shorts Footware Cotton T-shirts Unprocessed tobacco Women's cotton shirts and blouses
Products for which export growth is below average	*Losers* Ferrochrome containing more than 4 per cent carbon content	*Achievers in adversity* Shoes upper parts Medicinal plants Select fruits and seeds Men's cotton shirts Women's synthetic dresses

Source: UNCTAD and UNDP, 2001.

specific assets. This form of segmentation is possibly the most frequently used approach to identify a set of firms. UNCTAD research shows that the export-oriented industries most commonly targeted by developed countries are high-technology manufacturing and business services (such as business and professional services, financial services, information technology, media, regional headquarters, call centres and shared-service centres) (UNCTAD, 2002d). Such industries are also increasingly targeted by a number of more advanced developing economies, including Hong Kong (China), Malaysia, Singapore (Low, 2001; Cheng, 2001) and, increasingly, China (*WIR01*, p. 26). Costa Rica's IPA concentrates its efforts on three main areas: electronics, medical devices and certain services.[5] In both Central and Eastern Europe and in developing countries, IPAs attach somewhat greater importance to basic manufacturing, for which competitive labour costs may represent a locational determinant. However, agro-based industries top the list in developing countries as well as in LDCs as a group (UNCTAD, 2002d).[6]

Another example of economic targeting is to identify export-oriented industries and firms that can benefit from a country's trade preference position (section VII.A). Several African countries are currently exploring ways to attract export-oriented FDI that could benefit from the improved access to the United States market through AGOA (see also section VII.A and chapter III). While there are divergent views on the potential offered by AGOA for many of the beneficiaries, this scheme does appear to have helped some countries to attract more export-oriented FDI. For example, since the launch of AGOA, Lesotho has attracted more than 10 new investment projects generating more than 10,000 new jobs (Masupha, 2002). The erosion of trade preferences over time, however, means that countries need to prepare themselves for the eventuality of no preferential access to key markets.

Some countries use existing clusters of industrial activity as the basis of their investor targeting. Such efforts tend to focus on attracting firms that can add to the dynamism and competitiveness of existing clusters. For example, the EDB of Singapore has made its investor targeting an integral part of a broader effort to promote the development of specific industrial clusters. It has chosen to emphasize existing clusters in the manufacturing sector and to attract FDI into

new clusters in the services sector (Low, 2001). The Investment Promotion Centre of Israel focuses on the strongest industries in the economy; Invest in Sweden Agency begins with thorough research on how FDI can help strengthen the dynamism of existing clusters or competence blocks; and in Finland, investor targeting is determined partly by the focus of the national innovation system on the development of selected industries. The Malaysian Industrial Development Authority has identified 22 clusters, which are all seen as offering potential for attracting export-oriented FDI (Cheng, 2001).[7]

Competition makes it increasingly important for IPAs to identify not only which industry to target, but also the exact niche and activity within a particular industry that is likely to maximize the location's advantages. The more focused the approach, the easier it is to streamline IPA activities to meet the needs of investors and the smaller the risk that a country will focus on exactly the same investors as other countries. For example, within the automotive industry, a country may need to examine whether it should target the production of certain components (such as engines, tyres and electronic equipment) or assembly operations; in the area of call centres, it may aim at attracting low-skill operations (switchboard functions) or high-skill ones (e.g. technical support centres) for regional or global operations. The focus should reflect the strengths. The Thai Board of Investment, for example, has divided various segments of the agro-industry and the automotive, fashion, electronics and selected service industries (box VIII.5).

Another, often used, approach to market segmentation is geographic. IPAs frequently focus promotional resources on key home countries for TNCs. United States firms, for example, have been the most popular target for IPAs located in Ireland, the United Kingdom, South-East Asia and the Caribbean. Moreover, it is common among IPAs to target investors based in neighbouring countries.[8] In China, targeting has involved the development of industrial parks (e.g. in the province of Fujian) specifically tailored to attract TNCs from Taiwan Province of China, and (in the province of Guangdong) from Hong Kong (China) and South-East Asia. Some of the poorest countries may focus special attention on export-oriented TNCs active in the more advanced developing countries, in which rising labour costs are rendering low-technology activities

Box VIII.5. The targeted approach of Thailand

To make its efforts to promote FDI more effective, the Board of Investment (BOI) in Thailand is currently in a process of making its activities more proactive and targeted. One of the reasons behind this decision is greater competition from lower-cost locations. A more proactive approach is seen as an important way to improve both the quality and quantity of FDI, and to help enhance the sustainable growth of the Thai economy.

Five target industries have been identified based on their long-term growth potential, their need to be strengthened to be able to compete effectively in the global marketplace, or their need to be expanded and extended to take advantage of their competitiveness.

In *agro-industry*, Thailand has abundant natural resources, cost-effective labour, and proven production capabilities. Thailand is the world's largest exporter of rice, canned tuna, rubber and canned pineapples. These fundamental strengths are seen as a basis for the industries' transition into higher-value-added agro-processing by improving product quality, yields and sustainability.

The Thai *automotive* industry hosts almost every major auto assembler. They have been attracted by a combination of cost-effective skilled labour and the availability of parts and components suppliers, as well as access to the regional market. Assemblers such as Toyota and Fiat have shifted regional production into Thailand. Thai auto exports more than tripled over the past five years. An expected continued growth of exports opens opportunities for parts and components manufacturers.

The third industry is *fashion*, particularly leather, garments and jewellery. While Thai craftspersons are well respected for their artisanship, inward FDI is expected to help improve product design and to build up Thai products and brands.

Electronics, including information and communication technology, is regarded as key to Thai competitiveness and to the transition towards a knowledge-based economy. Thai electronic goods have long been widely accepted in global markets. The challenge is to move up the ladder from simple assembly to higher-value-added processing.

Finally, the BOI also targets *high-value-added services*, which includes software services, printing and long-stay tourism. For example, Thailand recently developed a tourism programme for long-stay tourists and designed it specifically with Japanese retirees in mind. It is expected that there will soon be special Japanese "long-stay villages" set up, complete with Japanese management.

For each targeted industry, policies, measures and marketing strategies specific to each industry will be developed, taking into consideration their needs, based on factors such as competitiveness, market potential and levels of technology.

The BOI has also adopted a geographical focus for its targeting. Three major regions and, within these, a number of home-countries of FDI have been identified: the regions of Europe (primarily the countries of the EU), Asia (especially Japan, China, Singapore, Taiwan Province of China and the Republic of Korea), and North America (United States and Canada). These regions will receive more investment missions from Thailand. Also, additional overseas offices will be opened in these regions to provide more individualized service to potential investors. During 2002, new offices will be opened in Shanghai and Hong Kong, China; in 2003, offices will be set up in San Francisco and Osaka. Local agreements with various organizations, such as other investment agencies, banks and provincial governments are expected to help the BOI better understand what investors are looking for.

These targeting efforts are complemented by measures to improve overall Thai competitiveness, especially with regard to small and medium-sized enterprises (SMEs). In this context, the BOI is transforming its regional offices in Thailand into marketing organizations to help improve the capabilities of domestic SMEs. Accordingly, the staff in these offices will be retrained to identify products that offer potential in international markets and will develop appropriate support packages, including incentives for these ventures. This is being done in close cooperation with other branches of government to ensure that promising SMEs receive the necessary support. The focus will be on the most promising enterprises. Foreign SMEs will be encouraged to provide assistance in such areas as technical assistance and market access.

Source: Wanapha, 2002.

uncompetitive. For example, this targeting strategy remains popular among a large number of African countries that have preferential market access to the United States and European markets, and also to the South African market. The Investment Promotion Centre in Kenya targets TNCs from South-East Asia for similar reasons. Export-oriented companies attracted to Kenya include Muthama Gemstones (Thailand) and Young Orientals (the Republic of Korea).[9]

Obviously, in most cases, investor-targeting strategies involve a combination of the economic and geographic market-segmentation mechanisms. The geographical focus may depend on the industry niche that has been chosen as a target and should reflect an analysis of where the principal sources of potential FDI in the targeted niche are.[10]

In the end, IPAs need to go beyond the identification of industries and countries and should select a set of individual companies and their management. This task can be more or less difficult, depending on what is targeted.[11] In industries and activities that are dominated by a few easily identified companies, finding the companies is relatively easy compared with industries in which the market structure is less concentrated. However, the more carefully a niche can be defined, the easier it is for an IPA to find the prime candidates for promotional activities. As suggested in chapter V, to arrive at the right selection of companies requires a good understanding of the industry dynamics. With the growing role of contract manufacturing and other forms of outsourcing, for example, IPAs need to decide whether they should target the final buyer of a product or the actual manufacturer, or both.

There is no standard solution to this problem. The strategy chosen has to reflect the structure that prevails in each type of activity and industry. Still, some rules of thumb can be useful in the process of selecting company targets. Important clues as to where to look for potential investors relate to foreign affiliates that are already established in the country. They are "living proof" of the existence of investment opportunities, and their presence may be indicative of where to search for additional investment. Their competitors, too, may potentially be prime targets, especially if the existing foreign affiliates are linked to leading TNCs. Companies that are part of the value chains of domestic as well as foreign affiliates in the host country (e.g.

as buyers or suppliers) are also potential targets. Nurturing close contacts with existing firms may generate useful insights into their investment strategies and how these "related" firms make their investment decisions.

Moreover, an investor-targeting strategy has to recognize that companies and countries do not make investment decisions – individuals do. This means that IPAs ultimately need to identify not only companies but also key decision-makers within them at the levels of corporate headquarters, division or regional headquarters, or individual foreign affiliates. If IPAs do not reach the right people, there is a risk that much time and resources will be wasted, no matter how competitive a location is.

Demographic and *psychographic* criteria can sometimes be useful instruments to consider in this process. Some IPAs concentrate on firms with key decision-makers from the country's diaspora. This latter approach has been employed by countries as diverse as China, Croatia, India, Ireland and Israel, all of which have the common characteristic of significant diasporic communities (Wells, 1999). For example, China has attracted investments from TNCs controlled by overseas Chinese; Indian executives based in Silicon Valley have been encouraged to invest in the Indian information technology industry; and active policies by the Government of Israel helped to attract investments by members of the overseas Jewish community (Aharoni, 1966). The application of *psychographic* criteria involves taking lifestyle considerations of executive officers into account. For certain activities (such as head-office functions) undertaken by senior management, the taxation of individual incomes and the general quality of life can play a critical role.[12] IPAs in the United Kingdom and Switzerland have tried to attract such investment by leveraging their relatively low taxes on individual incomes.[13]

3. How to target?

There is no universally applicable method of targeting export-oriented investors. The best method depends on the kind of activity targeted and the specific features of each location. Nonetheless, there are a number of aspects related to the function and organization of IPAs that are relevant in this context.

IPAs use a wide array of promotional tools in their targeting efforts, ranging from advertising and telemarketing to personal contacts and site visits. The optimal mix of these various tools is determined by the kind of investment targeted as well as by the resources available. The main challenge is to provide relevant information through channels that will attract the attention of key decision-makers in the targeted firms and generate as many high-quality leads as possible. Effective targeting requires IPAs to be in a position to intervene, through a process of personal relationship-building – often over an extended period of time – at the level of key decision-makers, especially when a company gets nearer to making the final decision. Moreover, the more informed an IPA is about the plans and circumstances of a firm, the greater the chances that it will provide relevant information and make a competitive "offer".

One implication of this is that IPAs, both in their organizational and functional structure, need to be business-oriented and to develop strong links to the private sector. At the same time, they need support from the highest political level to perform their tasks. This orientation is far removed from the culture of investment authorities involved in screening FDI. Consequently, giving a former screening institution a new mandate to attract FDI can work only if there is a profound shift in organizational culture and orientation.[14]

IPAs have responsibilities and functions that differ from other government agencies and, accordingly, need a different organizational structure.[15] Depending on the specific context, a case can sometimes be made for including relevant expertise in the board of directors. Appointing board members with experience from the specific industries or activities that an IPA is targeting can be a way to ensure that an IPA is run in a business-like manner and to widen the network of the IPA in the relevant fields.[16] The choice of director of the IPA is another aspect to consider (Wells, 1999). To run an IPA effectively, this person needs the ability to interact both with the political leadership at various levels of the government hierarchy and with executives of domestic as well as foreign firms. Differences in salary levels in the private and public sectors can make it impossible to recruit professionals with long experience in the private sector. Still, a number of countries at varying stages of development, including Bangladesh, Denmark, Jamaica, Sweden,

Uganda and the United Kingdom, have appointed former business executives to head their IPAs.

The need to build personal relationships with key decision-makers suggests that IPAs can also benefit from recruiting sales people who are comfortable with business operations and investment decisions. Indeed, professionals with hands-on experience in the target areas should be particularly useful to an IPA. A number of IPAs do emphasize this factor, including the Investment and Development Agency (IDA) in Ireland, the Welsh Development Agency and One North East in the United Kingdom, the Invest in Sweden Agency and Invest Hong Kong.[17] Hence this form of promotion is assisted by the implementation of compensation systems that reflect the nature of the experience and expertise required, allows for the recognition of high-quality performance (box VIII.6), and take account of the market compensation for such people.

During the investment decision process, many TNCs engage outside expertise to help evaluate different alternatives. Investment intermediaries, such as law firms, banks and accounting firms, may have a self-interest in generating (and alerting their clients to) investment opportunities. They can therefore be key channels of information for IPAs to foster. In addition, these intermediaries typically have well-established contacts with the right decision-makers that may be difficult for a government agency to develop. Organizations other than the national IPA may well be in a position to assist in the targeted attraction of investments. Examples are agencies in countries involved in extractive industries or tourism. The national IPAs may not consider promotional activities in these areas to be within their ambit of responsibility. When seeking to attract investments in areas of traditional strength, and when there are national agencies with specialized expertise in these areas, national IPAs can play the role of coordinator of the investment promotion activity. In a well-coordinated effort, a country's diplomatic service may also play a role, as is the case, for example, for Brazil and Egypt (box VIII.7).

Some countries have chosen to merge the responsibility for export promotion with that for FDI promotion, a rational choice if the aim is to expand export activities with the help of inward FDI. This may work well in some situations. Linking the two activities could potentially imply some cost-saving,

Box VIII.6. Costa Rica' s CINDE: the "other" story of promotional effectiveness

The success of Costa Rica's IPA, Costa Rican Investment Board (CINDE), in attracting Intel to its territory has become legendary in investment promotion circles. How did CINDE get to that point of promotional effectiveness?

CINDE was formed in the mid-1980s, with significant involvement of the Costa Rican private sector, and with substantial funding from the United States Agency for International Development (USAID). Early in its development, it adopted a targeted approach to its task, with advice from Ireland's Investment and Development Agency (IDA). Indeed, a seasoned IDA executive served as a resident adviser to CINDE for two years in the mid-1980s and introduced the principles of promotion that had worked well in Ireland.

The Agency's focus was largely geographic (United States) and industrial (electronics). It adopted a deliberate strategy to shift away from the previous dependence on natural resources and garments. Subsequently, business services, medical devices and special projects were added to electronics as targeted industries. A lean overseas promotional organization was developed with highly trained and well-compensated Costa Rican nationals engaging in a process of personal marketing to targeted companies. The Agency had a budget of approximately $2 million and just over 40 employees who were encouraged to build long-term relationships with the companies identified. Its compensation system allowed for bonuses for high-performing executives. Benchmarking against salary levels of the private sector and salary surveys were carried out with the help of consultants in order to establish a better fixed and variable income level. Much attention was also paid to the development of an Agency-wide investor tracking system to create an organizational memory for promotional activity, in addition to providing a basis for personnel evaluation and compensation.

CINDE was successful in attracting mainly small electronic firms to invest in Costa Rica during the late 1980s and early 1990s. It eventually hit a "hole in one" when it secured Intel's massive investment in the mid-1990s but this was preceded by many smaller achievements in the form of attracting small electronic firms that created the beginnings of an electronics cluster in Costa Rica. By 1996, companies such as Bourns-Trimpot Electronicas (electronic components), Espion (transformers and electronic switches), Cortek (coils), Suttle (telephone connectors), Altor Electronicas (transformers), DSC (circuit boards), Protek (electronic

components) and Sawtek (frequency filters) had all invested in the country.

Costa Rica finally managed to attract the attention of Intel managers and to win the investment in fierce competition with more well-known locations, including Argentina, Brazil, China, Mexico, Singapore and Thailand. Among the main factors behind the success was the highest possible attention given to the electronics industry and to the Intel project by CINDE, involving even the President. Throughout the process, Intel was impressed by the way CINDE managed the project, under strict confidentiality. Moreover, thanks to substantial investment in, and a changed strategy for, its education system, Costa Rica had developed the necessary labour skills. Finally, a comprehensive incentive package, including income and municipal tax exemptions under the free zone legislation, helped to tip the balance in favour of Costa Rica. This was not the most critical factor to Intel, but it was important to other investors.

Other notable investments that followed Intel's include those by Abbott Laboratories (medical devices), Remec, EMC technology and Camtronics (electronic components), Sensortronics (sensors) and Aetec (board contractors). More recently, Costa Rica's targeting efforts have paid off in the services sector as well. Successes in 2001 include the decision by Procter & Gamble to site its shared-services centre for the Americas in Costa Rica and Western Union's decision to establish a financial services centre.

Today, CINDE is a state-of-the-art IPA. On the basis of studies as well as positive experiences of foreign affiliates in Costa Rica, CINDE identifies the areas in which Costa Rica enjoys a comparative advantage at a given moment. The identification of target areas is dynamic and subject to change. CINDE does not promote mass-market products but rather niche areas with small production runs and medium-to-large requirements for a skilled workforce. With the exception of Intel and Abbott, medium-size investments in high-technology manufacturing, high-value products and skill-intensive services are the targets. The common link among them is Costa Rica's human resources, which are the basis of the country's strategy for development. The country's comparative advantages are regularly reviewed through benchmarking with selected competitors for specific investment projects and the targeting efforts adjusted accordingly. There are important expectations with the recent creation of the CAATEC Foundation, a joint effort of individuals

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> **Box VIII.6. Costa Rica' s CINDE: the "other" story of promotional effectiveness (concluded)**
>
> from the private and academic sectors who work together to enhance the country's competitiveness for high-technology investments. As part of Costa Rica's "e-readiness" programme, CAATEC seeks to provide online financial services to SMEs and to help enhance their ability to participate in the knowledge-based economy (Egloff, 2001b).
>
> In a sense, the success of the Costa Rican Investment Board in attracting the Intel project converted its FDI policy into a concrete manifestation of the new development policy (Rodriguez-Clare, 2001). Nevertheless, Costa Rica remains weak in embedding export-oriented FDI in the local economy. There is as yet little evidence of linkages, clustering effects or the upgrading of domestic supplier capacities, despite the implementation of programmes such as Costa Rica Provee and Impulso, which have been set up with this kind of objective in mind. In order to sustain its success, Costa Rica will have to diversify its exports to other markets and improve the links between export-oriented production and domestic enterprises.
>
> *Source:* UNCTAD, based on information provided by CINDE; Egloff, 2001b; Spar, 1998; Rodriguez-Clare, 2001, www.caatec.org, June 2002.

> **Box VIII.7. Training diplomats in FDI promotion**
>
> Egyptian diplomats have benefited from UNCTAD's training in investment promotion and investor targeting through the organization of a series of training workshops. They are designed for mid-level and senior-level diplomats and aim at providing basic, practical knowledge about investment promotion and investor targeting. Typically, a three-day workshop includes the presentation of global and regional FDI trends, an overview of corporate decision-making processes, and a discussion of company cultures and ethics (highlighting the differences in company perceptions and management styles). It also covers a number of quantitative techniques used in investment promotion, such as the strengths, weaknesses, opportunities and threats (SWOT) analysis. The training material is supported by concrete examples and case studies, and can include the latest trends in Internet-based investment promotion.
>
> *Source:* UNCTAD.

particularly in the cost of overseas offices, and may be an attractive option for agencies involved in cluster development, for which FDI and export promotion can be closely interlinked. On the other hand, there may be good reasons to keep investment and export promotion apart. First, the skills required for the two activities typically differ. Decisions related to the purchase of a service or product and those related to investment tend to be handled by different parts of a company. Reaching and convincing top management to invest in a certain location is a very different task from that of helping domestic firms to expand their sales overseas. There is also the risk of responsibilities becoming fragmented and the agency's work becoming less focused, with the possibility of neither function being performed well. Thus, whether the two activities should be merged or kept separate depends on whether government efforts in the two areas can be made to complement and reinforce each other.

As the preceding discussion indicates, there are many issues to be considered when embarking on targeting. IPAs intending to do so can benefit from an exchange of experiences with "market" leaders in this area, as well as from specific training courses (box VIII.8). A concrete example of how a southern European IPA shifted from a reactive to a proactive approach to investment promotion is given in box VIII.9. The point to emphasize is that successful targeting in a highly competitive world market for FDI requires a long-term, professional approach.

> **Box VIII.8. Training courses in investor targeting**
>
> An example is UNCTAD's newly developed training product entitled *Third Generation Investment Promotion: Investor Targeting*. It aims at fostering an understanding of the latest concepts and trends relating to FDI, sharing best practices in generating investment and, in particular, providing key tools and skills to develop a targeted approach to investment promotion. Key issues addressed include:
>
> • *What* factors influence the decision to invest?
> • *How* do TNCs shortlist locations?
> • *What* determines which industries and companies to target?
> • *What* do firms consider effective corporate development support?
> • *Why* is investor targeting an efficient way to promote FDI in a location?
>
> The product consists of a tailor-made workshop (3-8 days) and a master reference manual.
>
> *Source:* UNCTAD.

**Box VIII.9. Moving from a non-focused to a targeted approach:
the case of a southern European IPA**

At the end of the 1990s, an IPA from a southern European country had a reactive approach to investment promotion. It basically responded to any investment enquiries that came in from interested investors. The agency – which combined trade, tourism and inward investment functions – also suffered from organizational weaknesses. There were few project officers dedicated specifically to attracting investment, and the agency was not mandated to act as a one-stop shop.

Prompted by a sharp decline in inward FDI in 1999, the IPA decided to implement a major change in investment promotion policy and organization. It managed to get better control over incentives and took steps to improve its internal efficiency. For example, a cohesive team was put together, also involving project officers abroad; commercial practices were introduced, in particular, in sales (promotion); quarterly sales plans were developed and agreed; twice-yearly sales meetings were introduced to discuss opportunities, share best practices and new research, and ensure a coordinated approach; and a dynamic leadership was put in place to supervise the changes. The IPA also decided to shift from a reactive to a proactive investment strategy. Targeting was at the heart of this strategy. There were several key stages to developing and implementing the proactive, targeting strategy:

Identification of target industries and markets. Four target industries were identified according to the competitive position of the location, opportunities in the FDI market, and the strategic industry objectives of the national Government. The target industries consisted of activities for which the location had achieved considerable success in attracting FDI (electronics, automotive), and which had opportunities for upgrading and attracting higher value-added activities. Also, the agency hoped to cash in on the growth of newly emerging services (front and back offices and telecommunications) where other countries had been successful. For each target activity, key sub-activities were identified, based on the specific competencies of the location: for example, in electronics, R&D related to consumer electronics, R&D and manufacturing related to automotive electronics and R&D related to semiconductors were prioritized. For each industry, target overseas source markets were identified.

Development of an FDI database. An investment database was developed with the assistance of external consultants to provide comprehensive, comparative data on the possible information requirements of potential investors. For each target industry, more detailed information was provided, together with key selling messages for promoting the location. The database is used for developing marketing materials and business propositions and handling investment enquiries. It is also used as a knowledge tool to update data on the country and on competing locations continuously. Project officers were trained in the use of the database.

Company targeting. A three-dimensional targeting policy was developed, focusing on new potential investors, existing investors (aftercare), and intermediaries who influence location decisions. For each target source market, potential investors were identified in the target industries based on existing market intelligence, business databases and other industry sources.

Roll-out in overseas offices. A project officer in each overseas office was given responsibility for implementing the targeting policy. Project officers developed initial contacts with potential investors and intermediaries in the source country. The objective was to develop a long-term approach to targeting companies. Techniques used included drip-feeding companies with the latest information (quarterly reviews), building contacts with the diaspora community and organizing networking events, such as wine tasting, in the embassies. Meetings set up with companies were attended by senior officials from the IPA.

Coordination and results. There was active monitoring and evaluation of results. The initial company targets were re-evaluated and companies with weak investment prospects were removed to allow focus on the best opportunities. It took over one year for the targeting to yield significant results. Since 2000, 75 per cent of FDI projects in the country have been in the target industries. Major electronics and automotive investments have been secured through the aftercare programme and the location has been put firmly on the map for new service functions. However, the longer-term success of the country will depend on implementing much-needed product development initiatives to attract more knowledge-based investment.

Source: UNCTAD, based on information provided by PricewaterhouseCoopers Consulting-PLI, Belgium

4. What are the pitfalls and risks?

Adopting an investor targeting strategy can be effective in attracting FDI, but it also presents considerable challenges for Governments. To be effective, investor targeting has to be well integrated into the overall development strategy of a country. Attracting export-oriented FDI is not an end in itself; rather, it is a means to speed up development. In this sense, the role of IPAs goes beyond a purely promotional mission. IPAs need to work closely with other parts of the Government to identify and, indeed, create comparative advantages that are sustainable rather than ephemeral.

Targeting therefore should not be a one-off initiative but a continuous learning process. IPAs need to recognize the importance of dynamism in niche market identification and be aware of the need to revise their strategies over time, as competitive conditions and corporate strategies evolve. National advantages based upon preferential market access, for example, are valuable, but must fit into a clear plan for creating sustained advantage over time. IPAs can contribute to such plans, but their conceptualization and implementation involves other agencies of government and public-private partnerships. In certain situations, IPAs can play a catalytic role in setting up such constellations aimed at improving the competitiveness of a location (box VIII.10). Their ability to do so is enhanced when there is congruence among key national institutions about the approach to development and the role of FDI in the development process.

Of course, the notion of development strategies brings to the fore the industrial policy debate on the appropriate role of government. While this is not the place to review the extensive literature on this subject, it should be noted that an investor targeting strategy, with its emphasis on focusing resources – promotional, fiscal and infrastructural – on a defined subset of all potential foreign investors is an example of selective intervention. And, of course, there are risks attached. Resources may be focused on seeking investments that do not materialize, or considerable efforts and resources may be devoted to attracting the wrong types of firms, or firms that would have invested in any event. There is also the risk of assuming the government's ability to foresee which types of FDI are likely to have the greatest ability to integrate and link with indigenous investment.

These risks are real and efforts need to be made to mitigate them. Such risk-reducing measures include, first of all, an appropriate sequencing of promotional activity. Thus, improving the overall policy environment for investment – domestic and foreign alike – should not be sacrificed to a selective focus on attracting a few firms. Also, targeting should respond to market signals as far as possible, for example, by focusing on firms that have already demonstrated an interest in operating in the country through the establishment of affiliates.

Other risk-mitigating measures involve incrementalism and realism in targeting. It should be based on a proper understanding of the strengths and weaknesses of a location as a base for export-oriented production, and it should not be expected to pay off instantly. There is an obvious risk of wishful thinking in seeking to win "high-status" TNCs (à la Intel) if a country does not have the basic conditions to attract this type of investor (such as an educated and highly skilled workforce and excellent, low-cost infrastructure). Winning this sort of flagship investment requires a long-term, concerted and coordinated effort among all government departments at the highest level, an effort that is difficult and expensive to muster, although the rewards are high, since countries that do manage to attract leading TNCs in oligopolistic industries often benefit from additional investment by their competitors and suppliers. It needs to be borne in mind that competition for high-profile investment projects can be intense and, for every winner, there are often several losers that, in the end, will have expended considerable resources in a failed attempt to attract a project. Thus, for most developing countries, the investors to target will *not* be the top 100 TNCs (chapter IV), but rather, smaller firms within the appropriate industry or activity. As mentioned above, Costa Rica's targeting did not begin with Intel; it was the result of a long process of building the capacity to attract firms like Intel.

Clear criteria of accountability and performance evaluation should help mitigate the risk of IPAs expending considerable resources without producing substantial results.

Box VIII.10. Building an FDI-based cluster: the case of Socware in Sweden

Invest in Sweden Agency (ISA) bases its marketing efforts on industrial clusters that offer a dynamic environment to potential investors. If ISA finds that there is potential for FDI in an area of Swedish strength, it invites partners in academia, the private sector and relevant public agencies to participate in its effort to build or develop a cluster. Together, the partners finance one or more feasibility studies to define the potential Swedish offer more carefully. This research forms the basis for a proposal to the Government. Before any actual promotion takes place, a long-term political commitment is also secured by the ISA.

The "Socware" project is a good example of this, even though external factors have thus far kept its results relatively modest. In 1998, ISA noted a growing interest among leading semiconductor makers in concentrating their activities in systems design. Such knowledge-intensive centres were expected to emerge in only a limited number of places around the world, and ISA sought to find out whether Sweden could become one of them. To this end, it organized discussions with leading representatives of academia, foreign and Swedish companies, and government agencies from the local, regional and national levels. In addition, feasibility studies were commissioned on technological requirements and market opportunities.

Following intense discussions with the parties involved, over an extended period, it was decided to go ahead with plans to form a cluster around the designing of systems-on-chips. ISA coordinated the process and was also responsible for the international promotion of the cluster. Moreover, three Swedish universities agreed to set up a new Master's course in Socware design and to expand their PhD programmes to increase the availability of the skills needed. Special efforts were also initiated to ensure that the legal framework was adequate for the protection of intellectual property rights. In 2000, a new institute for industrial research (Acreo) was established to strengthen the link between academia and industry.

The annual marketing budget of the Socware project is approximately $0.4 million. The agency recruited staff with proven experience in the relevant area. ISA has especially sought to employ professionals with a strong network of business contacts and an ability to interact with top executives in the relevant business segments.

The actual targeting of firms is based on careful market research of the leading players in the field. ISA first turned its attention to Taiwan Province of China. The rationale for this decision was that Taiwanese companies offered world-class competence in semiconductor manufacturing but were not equally strong in the area of systems design, an area in which Sweden has a strong track record. The Swedish offer was made even more competitive because of the presence of leading-edge capabilities in telecommunications and, especially, wireless technology, two areas for which systems-on-chip design is of critical importance. After an in-depth analysis of the corporate sector in Taiwan Province of China, ISA has so far visited 15 Taiwanese companies. It has also visited six companies in Japan, four in the United States and four in the Republic of Korea.

The dramatic recent slowdown in the semiconductor industry has meant that the results have not so far met expectations. Still, since active marketing began in mid-2000, Sweden has attracted three significant investments related to the project: Atmel and National Semiconductor (United States) and Via Technologies (Taiwan Province of China). ISA is currently in the process of intense discussions with eight other companies seriously considering setting up design activities in Sweden. Other important positive results of the Socware project are an increased flow of professionals to Sweden and a rise in the number of engineers graduating with the appropriate background. Financing for the Socware project has been secured for five years to start with, after which period the project will be evaluated.

Source: UNCTAD, based on information provided by Invest in Sweden Agency.

An important tool in this regard is the establishment of realistic targets against which performance can be measured.[18] IPAs should have monitoring mechanisms in place that allow for accurate reporting on expenditure and results. In practice, very few IPAs are systematically evaluated and monitored (UNCTAD, 2002d; Wells, 1999). In an UNCTAD survey of more than 100 IPAs, only one-third of the agencies used quantitative measures (and an even smaller percentage used qualitative ones) to evaluate their performance (UNCTAD, 2002d).

Finally, a targeted approach does not eliminate the need for a certain amount of "general promotion". An IPA needs to be prepared to respond to enquiries that fall outside the activities and industries explicitly targeted. Indeed, such spontaneous and unexpected enquiries can often be just as important as those generated through proactive

promotion. The problem IPAs face is that it is not possible to target everything without, by definition, ending up by targeting nothing. Hence, there is a need for IPAs to strike a balance between resources spent on proactive targeting and those spent to respond effectively to unexpected enquiries. Equally important is ensuring that potential investments are not lost through inefficiencies in the handling of projects.

B. Investment facilitation

While the trend towards creating a more enabling framework for FDI continues (chapter I), many countries still evaluate and screen FDI at the point of entry. While such regulations serve different purposes, the time required to obtain the various licences, permits, and approvals needed can sometimes be considerable and can negatively influence the cost-efficiency of a location. The costs in terms of both money and time are especially important to export-oriented foreign investors, as they cannot pass on these costs to their buyers. (They must sell at prevailing world prices.)

One study of the procedures governing entry regulation in 85 countries and the costs of following these procedures found huge variation across countries (Djankov et al., 2001). The total number of procedures ranged from 2 in Canada to 21 in the Dominican Republic, and averaged 10.5 for the whole sample. In terms of the minimum number of business days required to start a new business, there was a range from 2 days in some developed countries to 152 days in Madagascar. Ironically, low-income countries with a lower level of institutional capacity generally impose more regulations on the private sector than do high-income countries with greater institutional capacity. Moreover, a strong correlation was noted between the level of corruption and the number of registration procedures that an investor had to go through.

There are usually a number of government institutions involved in the entry and establishment process. A TNC may need to deal with tax authorities, immigration boards, investment boards, customs authorities and others. In many developing countries, IPAs have been set up partly to facilitate investment entry. However, even when IPAs are granted one-stop shop status, the involvement of some other institutions is often still necessary. The efficiency of all these government bodies influences the time and cost associated with making an investment.

One way for IPAs to attack regulatory inefficiencies and red tape is to develop so-called "investor road maps". This methodology has been developed by the Foreign Investment Advisory Service (FIAS) and is a tool for identifying and reducing the number and scope of procedural steps, regulatory requirements and administrative barriers that constitute the day-to-day interactions between the Government and entrepreneurs. Conceptually, the methodology is based on the assumption that creating an enabling environment for private-sector activity requires improvement in the implementation of policy.[19] It can be used for three purposes:

- To inform investors of the regulatory hurdles and costs of investment and operations that they face;
- To demonstrate the totality of the regulations and the costs they impose on private investors; and
- To help Governments reduce the regulatory burden on the private sector.

IPAs can also reduce administrative barriers by fostering the development of industrial and export processing zones (section VII.F). In addition to good infrastructure and tax incentives, such zones can constitute islands of administrative efficiency and provide a buffer between export-oriented foreign investors and the regulatory authorities.

Beyond ensuring that application-processing times are reasonable, given the requirements of investors, IPAs can also help ensure that the relevant laws and regulations governing export-oriented FDI are easily accessible by foreign investors and their representatives. Increased transparency of the administrative system and investment procedures makes it easier for TNCs to predict costs for the realization of investment projects. A range of instruments have been applied to improve public governance in different parts of the world, including performance assessments, e-government and codes of conduct. To assist LDCs in developing good governance in investment promotion, UNCTAD launched a project in 2002 focusing on

encouraging good governance in LDCs in the area of investment promotion (box VIII.11).

The extent to which IPAs provide the service necessary to facilitate a smooth handling of incoming investment projects can be assessed. Such an evaluation can be done in-house or with the help of external expertise. In general, it is useful for IPAs to be able to offer a single point of reference to foreign investors with regard to obtaining permits and licences to operate in a country. This is all the more important in countries that do not boast an efficient bureaucracy and have a high level of corruption.

Box VIII.11. Good governance in investment promotion

In 2001, at the LDC-III Conference in Brussels, UNCTAD launched a new initiative to assist LDCs in their efforts to promote good governance in investment promotion and facilitation. The first phase of this programme started in 2002 and is focused on five countries: Ethiopia, Lesotho, Maldives, Mali and the United Republic of Tanzania.

For the purposes of UNCTAD's programme, good governance in investment promotion and facilitation is measured by the efficiency and transparency of investment-related procedures and practices. The first phase of the programme involves advisory work and training carried out in close consultation with other national initiatives to promote good governance. This is followed in each country by a national seminar at which results and recommendations are presented to an audience of stakeholders, and agreement is reached on a plan of action.

Training is provided to officials involved in investment promotion as well as to those that deal with post-investment activities such as the issuing of permits, customs clearance and site selection. The project also includes the training of trainers in order to establish sustainable local training capacities.

The first phase will be concluded with an international conference, at which the lessons learned and international best practices will be shared with Governments from project and non-project countries, the private sector, development partners and non-governmental organizations (NGOs).

Source: UNCTAD.

Greater use of *e-government* by IPAs and other relevant authorities can increase efficiency and transparency in government services and reduce costs in the medium and long run. It involves the use of information technologies (especially the Internet) to enhance access to, and delivery of, government services to citizens, businesses and public-sector employees (UNCTAD, 2001e). For example, IPAs may include on their website a listing of all the required permits and licences for investment projects, how and where to obtain them, applicable fees, maximum processing time and whom to contact in case of problems.

The introduction of *codes of conduct* for civil servants can support efforts to introduce ethical standards on a formal basis in the public sector. There are a number of countries that have such codes. Members of the OECD, for instance, have agreed to maintain a reference checklist of 12 principles to support Governments in their review of ethics-management systems. The introduction of a code of ethics is a part of that checklist (OECD, 2000c).

Tasks of IPAs related to that of investment facilitation concern the provision of services to existing investors and encouraging other branches of government to improve the investment environment. These two policy areas are addressed next.

C. Aftercare services

With the expansion of international production systems and the number of export-oriented foreign affiliates, the role of aftercare services assumes increased importance. Governments can introduce policies that encourage foreign affiliates to export more and higher-value-added products and services.

Foreign affiliates that are part of an international production system face not only external, but also internal competition. When making new investment and expansion plans concerning export platforms, TNCs consider the possibility of developing an existing plant before buying or establishing a new one. When there are multiple plants within a TNC's production network, the management of a foreign affiliate may have to convince headquarters that its site offers the best conditions for an expansion. IPAs and other

host-country actors can sometimes become allies of the affiliate in such cases and strengthen its bargaining position vis-à-vis the head office (box VII.12).[20] The experience of Ireland, Singapore and Wales shows that building a constructive relationship with existing foreign investors can be an important and cost-effective way to promote the expansion and upgrading of exports.

While IPAs generally recognize the importance of reinvestment and aftercare services,[21] few have adopted a systematic approach to that end and fewer still have programmes linked specifically to the export dimension. Among those that have developed structured programmes of aftercare services and relationship-building with existing firms, a "sales account" orientation is typically used to ensure that their locations will be well-placed for consideration in the next round of investment decisions (Phelps and Fuller, 2001; Kwon, 2001). One approach is to use

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Box VIII.12. Helping an affiliate to expand exports: the case of Black & Decker in the United Kingdom

In 1998, the corporate headquarters of the United States firm Black & Decker announced that it was planning to close a plant in north-east England. The regional IPA, the Northern Development Company, which had built up a constructive relationship with the local management of the Black & Decker affiliate, helped it to prepare a business plan that could be submitted to headquarters, outlining how the company could cut costs through a more efficient use of the supply chain. The plan also envisaged the creation of a supplier village at the plant (with the support of local authorities) to attract quality international firms.

Instead of closing the plant, the head office closed another European plant, shifted production to north-east England and set up a design and R&D centre there to develop products specifically for the European market. The 1998 expansion involved new investment of £17 million, which created 350 new jobs and safeguarded 775 jobs. About 75 per cent of the output produced at Black and Decker's affiliate is exported. Its product development and manufacturing operations based in Spennymoor, County Durham, are the largest in the Black and Decker network.

Source: Loewendahl, 2001b, p. 317.

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an *investor tracking system.* A number of IPAs, often with technical assistance, have developed computerized versions of such systems. They track investors from first contact, through the application and approval stages, to facility construction, and ongoing operations. With limited resources, an investor tracking system could initially focus on affiliates that are already exporting. Each affiliate is assigned to a "case officer" who follows them through these processes over time and periodically visits them to maintain contact. Once an investment is in place, the investor can be handed over from the initial case officer in the investment generation department to another officer in the monitoring department. An investor tracking system can be used to generate reports of the status of each investor through each stage of the investment process. During the operating phase, it can provide "trigger points" at which IPA personnel contact investors to assess their status, problems, plans for further investment, and ways in which the IPA can assist them in their operations. Such relationship-building can be an important step in identifying specific areas in which improvements are needed to facilitate more and higher-value-added exports from the affiliate in question.

In Wales, the Welsh Development Agency set up an accounts system after a suggestion from one major foreign affiliate that had been frustrated with multiple points of contact in its attempts to secure additional export-oriented investment from its parent company (Phelps and Fuller, 2001). The experience of Ireland is also illustrative. The Investment and Development Agency focuses on consolidating and building on the value of the 1,200 companies already in Ireland and supported by the Agency. It seeks to ensure that these companies continue to increase their value and contribute more, both to their own corporate success and to the Irish economy. Many of these companies are achieving this particularly by adding high-value research activities to their Irish operations. The Agency actively encourages firms to move up the value chain. While manufacturing activities will continue to remain a fundamental part of Ireland's development programme, over time, the investment being sought will be based more and more on innovation and research involving knowledge-intensive projects that require high skills and expertise.

Aftercare activities should be closely coordinated with various "product development" efforts. In order for existing foreign affiliates to be able to upgrade their activities, it is normally necessary for the location itself to become more hospitable to such an upgrading of production. Building close relationships with existing investors helps an IPA to provide useful inputs to other branches of government on how to enhance the attractiveness of their host country to export-oriented investors. An IPA can sometimes act on its own to improve investment conditions for export-oriented foreign and domestic investors, even if they remain unchanged in the economy as a whole. For example, if a low level of infrastructure development is a deterrent to export-oriented investment, the IPA can advocate placing infrastructure projects on the "promoted industries" list so that investors in this sector receive investment incentives. Investment in infrastructure is often impeded by laws and regulations that restrict FDI in terms of land ownership or in areas such as telecommunications or electricity generation or transmission. The IPA can advocate relaxing these restrictions. However, since many of the locational determinants are outside the area of responsibility of most IPAs (for example, political instability), these agencies need to have constructive relationships with the topmost levels of the government and bureaucracy, especially with departments whose policies and operations have an impact on investment flows.

One role of aftercare services is to help investors when they encounter problems that may hinder or postpone a continuation or expansion of an export-oriented project. A new approach in this context involves the appointment of an investment ombudsperson (Sauvant, 2002). This approach has been used, for example, in the Republic of Korea. In 1999, the Korean Trade-Investment Promotion Agency established an "Office of the Investment Ombudsman" (box VII.13). Some of the complaints and grievances handled so far have been directly related to export activities. When the Office is informed about a complaint, it is expected to act immediately and contact the relevant institution with a view to remedying the situation. It is empowered to request cooperation from concerned government authorities, which in turn have to address the issue without delay and present a plan for its resolution within seven days of

receiving the request. Within the Ombudsman's Office an "Investment Home Doctor" programme has been established. Each registered foreign affiliate is assigned a "Home Doctor" to whom it can address any grievances. For example,

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Box VIII.13. Office of the Investment Ombudsman, Republic of Korea

The Office of the Investment Ombudsman was established under Article 15 of the Foreign Direct Investment Promotion Act of 1998 as a means to resolving difficulties experienced by investors in the Republic of Korea and enhancing the overall business climate.

The Ombudsman is appointed personally by the President of the country and is a member of the Foreign Investment Committee, which is composed of 12 ministers and 16 high-ranking provincial and metropolitan officials. The Office has a staff of more than 20 professionals with expertise in areas such as legal, financial, trade and labour affairs. From its inception in October 1999 to the end of 2001, the Office had received a total of 1,084 grievance cases from foreign affiliates in the Republic of Korea, covering a variety of issues such as customs, construction, financial affairs, labour, taxation and investment procedures. Government agencies are required to respond to a request from the Ombudsman's office within seven days.

A few examples illustrate the work of the Office. To protect the trademark rights of exported and imported goods, the Office suggested in 2001 that the Customs Office implement a computerized system to cover relevant trademarks and introduce various scientific measures. As a result, the Customs Office signed a contract with a subcontractor for developing a trademark-rights management system and embarked on implementing a pilot operating system. Another example concerned the issue of land usage. One foreign affiliate had deferred its plans for further investment because it felt that the requirements for being designated an EPZ were too stringent. After reviewing the case, the Ombudsman's office proposed that the amount of investment and the number of employees required to qualify as an EPZ be reduced. Other examples include reform of the operations of bonded factories for raw materials and exemptions from specific administrative requirements related to imports to facilitate the expansion of exports.

Source: UNCTAD, based on the Office of the Investment Ombudsman, 2001; Kwon, 2001 and www.i-ombudsman.or.kr/history/mission_fs.html.

in response to a complaint from a company that exported 95 per cent of its products, the Office initiated a process that led to the abolition of a distinction between domestic and exporting bonded factories (Office of the Investment Ombudsman, 2001). This effectively enhanced the competitiveness of bonded factories in the Republic of Korea and is expected to have a positive impact on the country's exports.

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In sum, the role of IPAs is evolving. In countries in which FDI is seen as an important policy area, IPAs can play an instrumental role not only in attracting export-oriented FDI, but also in encouraging foreign affiliates to move into higher-value-added exports. Throughout, the success of an IPA in helping a country meet its specific development objectives rests largely on how well its activities are integrated into broader economic and industrial policies. Given the overriding objective of matching the firm-specific capabilities of TNCs with the development objectives of host countries, IPAs need to interact efficiently with both the private and the public sector. Targeted promotion is not easy but it is an approach that has generated significant results in a number of countries. If properly implemented, targeting can make the entire process of attracting and benefiting from export-oriented FDI more effective.

Notes

[1]   See, for example, Watzke and Mindak, 1987; Wells and Wint, 1990; Young and Hood, 1994; Loewendahl, 2001a; UNCTAD, 2002d.

[2]   In principle, the approach outlined below can be applied at sub-national levels too, with the main constraint being the limited availability of data on some aspects.

[3]   Another useful tool is the software developed by the Economic Commission for Latin America and the Caribbean, called CANalysis, which provides world market shares in global and regional markets by product and by technology classification. These are the data used in the analysis of export winners in the preceding chapter.

[4]   The most convenient source of data on educational enrolments and R&D spending is the *Annual Statistical Yearbook* published by the United Nations Educational Scientific and Cultural Organisation (UNESCO), large parts of which are now on the Internet (www.unesco.org). The *Human Development Report* of the United Nations Development Programme (UNDP) has data on education and other aspects of well-being (www.undp.org). UNIDO provides composite measures of skills, technological effort and technology imports for 87 countries in its *Industrial Development Report 2002* (www.unido.org). The OECD also publishes innovation and R&D data for its member countries, generally available on the Internet (www.oecd.org).

[5]   UNCTAD's survey on investor targeting, February, 2002.

[6]   For example, the Commission for the Promotion of Peru has identified tourism, fisheries, agro-industry, mining and infrastructure as its target industries. Uganda's focus on attracting foreign investment into its fish industry is another case in point.

[7]   The internationally linked clusters encompass electrical and electronics; petrochemicals; pharmaceuticals; textiles and apparel. The policy-driven clusters are automotive; marine; motorcycles; aerospace; polymers; metals; composites; ceramics; machinery and equipment. Finally, the resource-based clusters include wood-based products; rubber-based products; palm-oil-based products (food and non-food); cocoa-based products; fish and fish products; livestock and livestock products; fruits and vegetables; and floriculture.

[8]   UNCTAD's survey on investor targeting, February, 2002.

[9]   Communication from the Investment Promotion Centre in Kenya.

[10]   For example, Puerto Rico's Industrial Development Company decided to target the pharmaceutical industry (economic criterion) partly because the country already hosted a number of foreign affiliates in the industry. There was also a geographic element involved: beyond targeting firms from the United States, which has historically been the main source of FDI and represents the primary export market, other potential countries with large pharmaceutical exports to the United States were identified (by analysing United States import data) for targeting, and companies were identified within those countries.

[11]   Some IPAs focus only on firms of a particular size. In China, for example, some provinces specifically target the Fortune 500 companies. In the early 1990s, China started targeting the largest TNCs in the world. The ability to attract such TNCs has become an important performance indicator for many sub-national IPAs. So far, China has succeeded in attracting about 400 of the Fortune 500 companies to invest, a large number of which have multi-projects under a holding company in Beijing or Shanghai that reports directly to the headquarters in the home country (*WIR01*, box I.3).

[12]   When executives of Swedish TNCs were asked about the most important factors determining

the location of head-office functions, taxation of individuals was reported to be the second most important criterion after access to efficient air transportation (Braunerhjelm and Lindqvist, 1999; ISA Economic Council, 1999).

13   The rate of individual taxation is emphasized by London First Centre and Location Switzerland.

14   Given the difficulties in transforming screening institutions into IPAs, some countries like Mexico and Venezuela have chosen to start afresh and create completely new organizations for investment promotion (Wells, 1999).

15   At the same time, IPAs need to be able to interact efficiently with other parts of the bureaucracy, not least to facilitate the investment process (section VIII.B).

16   Copenhagen Capacity, a Danish sub-national IPA, is a good illustration of this point. This IPA targets regional headquarters (for which air transport is key), R&D laboratories (for which skilled labour may be the main attraction) and TNCs in industries represented by board members. Consequently, its board includes representatives of the local government, the CEO of Copenhagen Airport, the President of the Copenhagen Business School, and a number of CEOs of Danish and foreign companies.

17   *WIR01* and UNCTAD's survey on investor targeting, February, 2002.

18   Targets may be related to inputs (number of enquiries, visits, etc.), outputs (number of projects, jobs and value of investment), quality of investments (type of investment, mode of entry, R&D intensity) and agency impact (level of investor support and customer satisfaction).

19   Procedures at the municipal, provincial and national levels can be related to: *employment* (e.g. visas, residency permits and work permits for foreign investors and expatriates workers, and procedures for hiring local employees); *locating* (e.g. site acquisition and development procedures, utility hook-ups, and environmental compliance); *reporting to the Government* (e.g. business registration, tax registration, special licenses and permits, and privatization procedures); and *operating in the host country* (e.g. product certification, regulatory inspections, tax payment, and import/export controls).

20   There is a growing literature on how the mandate and functions of foreign affiliates can be affected through bargaining between corporate headquarters and the local management of the affiliates (see Birkinshaw, 2001, for a review).

21   Young and Hood (1995, p. 293) define "after care" as that "which comprises all potential services offered at the company level by government and its agencies to facilitate both the successful start-up and the continuing development of a multinational affiliate in a host country or region, with a view to maximising the local economic development contribution of that affiliate".

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ANNEXES

Annex table A.I.1. Distribution of world FDI flows by absolute amounts, FDI flows per $1,000 GDP and FDI flows per capita, by region/country, 1990-2001

(a) Region/country as a percentage of world total

	Inflows				Outflows			
Region/country	1990-1994	1995-1999	2000	2001	1990-1994	1995-1999	2000	2001
Developed countries	65.3	67.5	82.3	68.4	87.8	89.1	92.2	93.5
Western Europe	39.8	38.7	55.8	45.7	50.6	61.4	73.8	61.3
European Union	38.2	37.0	54.2	43.9	46.8	57.4	70.2	58.8
Other Western Europe	1.5	1.7	1.6	1.8	3.8	4.0	3.7	2.5
Japan	0.7	0.7	0.6	0.8	11.0	4.0	2.3	6.1
United States	18.2	23.6	20.2	16.9	22.1	19.6	12.0	18.4
Developing countries	32.6	29.3	15.9	27.9	12.1	10.6	7.6	5.9
Africa	2.0	1.5	0.6	2.3	0.8	0.4	0.1	-0.4
Latin America and the Caribbean	10.1	11.7	6.4	11.6	2.0	3.0	1.6	1.2
Asia and the Pacific	20.6	16.1	9.0	13.9	9.3	7.1	5.9	5.1
Asia	20.4	16.1	9.0	13.9	9.3	7.1	5.9	5.1
West Asia	1.2	0.5	-	0.6	-	0.1	0.1	0.2
Central Asia	0.2	0.5	0.1	0.5	-	-	-	-
South, East and South-East Asia	18.9	15.1	8.8	12.8	9.2	7.0	5.8	4.9
The Pacific	0.2	0.1	-	-	-	-	-	-
Central and Eastern Europe	2.1	3.2	1.8	3.7	0.1	0.4	0.3	0.6
World	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

(b) FDI flows per $1,000 GDP

	Inflows				Outflows			
Region/country	1990-1994	1995-1999	2000	2001	1990-1994	1995-1999	2000	2001
Developed countries	7.1	17.4	50.9	..	10.9	22.7	52.8	..
Western Europe	10.7	25.7	100.6	..	15.4	40.4	123.2	..
European Union	10.8	25.8	102.9	..	15.0	39.7	123.2	..
Other Western Europe	8.3	23.8	57.0	..	24.1	54.1	121.9	..
Japan	0.4	0.9	1.7	..	7.2	5.3	6.6	..
United States	5.9	16.4	30.7	..	8.0	13.8	16.8	..
Developing countries	14.7	29.1	36.7	..	6.5	10.7	16.5	..
Africa	8.8	16.4	15.6	..	4.3	5.2	2.9	..
Latin America and the Caribbean	15.1	37.0	48.1	..	3.5	9.5	11.1	..
Asia and the Pacific	15.8	26.8	33.9	..	8.5	12.1	21.2	..
Asia	15.7	26.8	33.9	..	8.5	12.1	21.2	..
West Asia	4.3	5.1	1.0	..	-0.4	0.6	1.9	..
Central Asia	20.7	58.7	44.3	..	-	3.8	0.8	..
South, East and South-East Asia	19.4	30.7	40.8	..	11.0	14.5	25.4	..
The Pacific	35.4	37.1	9.5	..	13.5	9.6	6.1	..
Central and Eastern Europe	8.4	25.0	38.1	..	0.4	2.9	5.9	..
World	8.6	20.0	47.7	..	10.0	19.9	44.4	..

(c) FDI flows per capita

	Inflows				Outflows			
Region/country	1990-1994	1995-1999	2000	2001	1990-1994	1995-1999	2000	2001
Developed countries	162.9	474.4	1 429.2	583.1	249.6	619.9	1 480.2	672.9
Western Europe	213.7	595.8	2 139.9	863.5	310.0	936.2	2 619.3	977.2
European Union	212.2	588.0	2 147.5	856.7	295.7	904.0	2 571.1	968.7
Other Western Europe	260.6	833.5	1 909.0	1 072.7	759.8	1 921.9	4 092.4	1 236.9
Japan	11.0	30.7	65.5	48.7	205.7	188.6	248.3	299.1
United States	143.0	509.0	1 062.4	435.2	196.4	419.3	582.5	398.6
Developing countries	15.6	37.5	48.8	41.4	7.4	14.8	23.4	8.1
Africa	6.2	11.9	11.0	21.1	3.9	4.4	2.3	-3.7
Latin America and the Caribbean	45.1	141.3	185.6	163.7	10.7	36.5	43.3	14.2
Asia and the Pacific	13.3	28.1	37.5	28.3	7.5	13.5	24.7	9.6
Asia	13.2	28.1	37.5	28.3	7.4	13.5	24.8	9.6
West Asia	13.0	14.1	2.9	17.2	0.1	2.0	6.6	5.6
Central Asia	9.5	37.5	25.6	47.9	-	3.0	0.6	4.0
South, East and South-East Asia	13.3	28.8	40.3	28.6	7.8	14.3	26.2	9.9
The Pacific	56.9	64.3	12.9	28.4	17.3	10.9	5.7	10.7
Central and Eastern Europe	17.3	55.9	78.6	80.8	1.0	6.8	12.4	10.9
World	38.5	101.5	245.7	119.0	49.1	100.7	244.0	100.7

Source: UNCTAD, based on UNCTAD FDI/TNC database (for FDI), UNCTAD secretariat (for GDP) and United Nations Poupulation Division (for population).

Annex table A.I.2.   Cross-border M&A deals with values of over $1 billion completed in 2001

Rank	Value ($ billion)	Acquired company	Industry of the acquired company	Host economy	Acquiring company	Home economy	Industry of the acquiring company
1	29.4	VoiceStream Wireless Corp	Radiotelephone communications	United States	Deutsche Telekom AG	Germany	Radiotelephone communications
2	13.8	Viag Interkom GmbH & Co	Telephone communications, except radiotelephone	Germany	British Telecommunications PLC	United Kingdom	Telephone communications, except radiotelephone
3	12.5	Banacci	Commercial banks	Mexico	Citigroup Inc	United States	Commercial banks
4	12.5	Fortis(NL)NV	Life insurance	Netherlands	Fortis (B)	Belgium	Life insurance
5	11.5	Billiton PLC	Miscellaneous metal ores	United Kingdom	BHP Ltd	Australia	Steel works, blast furnaces and rolling mills
6	11.2	AXA Financial Inc	Life insurance	United States	AXA Group(AXA-UAP)	France	Life insurance
7	11.1	De Beers Consolidated Mines	Miscellaneous nonmetallic minerals, except fuels	South Africa	DB Investments	United Kingdom	Investors
8	10.5	Ralston Purina Co	Dog, cat, and pet food	United States	Nestle SA	Switzerland	Food and beverages
9	9.8	AT&T Wireless Group	Radiotelephone communications	United States	NTT DoCoMo Inc	Japan	Telephone communications, except radiotelephone
10	9.3	CIT Group Inc	Short-term business credit institutions	United States	Tyco International Ltd	Bermuda	General industrial machinery and equipment
11	8.5	Cable & Wireless Optus Lt(C&W)	Telephone communications, except radiotelephone	Australia	SingTel(Singapore)	Singapore	Radiotelephone communications
12	8.2	Seagram Co-Alcohol & Spirit	Wines, brandy, and brandy spirits	Canada	Investor Group	United Kingdom	Investors
13	7.3	Bank Austria AG	Commercial banks	Austria	HypoVereinsbank AG	Germany	Commercial banks
14	6.9	Knoll AG(BASF AG)	Pharmaceutical preparations	Germany	Abbott Laboratories	United States	Pharmaceutical preparations
15	6.3	Gulf Canada Resources Ltd	Crude petroleum and natural gas	Canada	Conoco Northern Inc	Canada	Petroleum refining
16	5.8	GKN PLC-Support Services	Industrial supplies	United Kingdom	Brambles Industries Ltd	Australia	Equipment rental and leasing
17	5.7	Dao Heng Bank Group(Guoco)	Commercial banks	Hong Kong, China	DBS Group Holdings Ltd	Singapore	Commercial banks
18	5.6	Harcourt General Inc	Books: publishing, or publishing & printing	United States	Reed Elsevier PLC	United Kingdom	Periodicals: publishing, or publishing & printing
19	5.5	Japan Telecom,J-Phone	Telephone communications, except radiotelephone	Japan	Vodafone Group PLC	United Kingdom	Radiotelephone communications
20	5.3	Sema PLC	Computer related services,nec	United Kingdom	Schlumberger Investments	United Kingdom	Investors
21	4.6	Anderson Exploration Ltd	Crude petroleum and natural gas	Canada	Devon Energy Corp	United States	Crude petroleum & natural gas
22	4.3	GE Americom Communications	Radiotelephone communications	United States	SES Global SA	Luxembourg	Cable and other pay television services
23	4.2	Eircell Ltd	Telephone communications, except radiotelephone	Ireland	Vodafone Group PLC	United Kingdom	Radiotelephone communications
24	4.0	LASMO PLC	Drilling oil and gas wells	United Kingdom	ENI SpA	Italy	Petroleum refining
25	3.7	BioChem Pharma Inc	Pharmaceutical preparations	Canada	Shire Pharmaceuticals Group	United Kingdom	Pharmaceutical preparations
26	3.7	Blue Circle Industries PLC	Cement, hydraulic	United Kingdom	Lafarge SA	France	Cement, hydraulic
27	3.3	Deutsche Bahn AG	Operators of apartment buildings	Germany	Investor Group	United Kingdom	Investors
28	3.3	Haindl'sche Papierfabriken KGa	Paper mills	Germany	UPM-Kymmene	Finland	Logging
29	3.2	Elettrogen SpA	Electric and other services combined	Italy	Investor Group	Spain	Investors
30	3.0	JDS Uniphase-Laser Chip Mnfr	Semiconductors and related devices	Switzerland	Nortel Networks Corp	Canada	Telephone&telegraph apparatus

Annex table A.I.2. Cross-border M&A deals with values of over $1 billion completed in 2001 (continued)

Rank	Value ($ billion)	Acquired company	Industry of the acquired company	Host economy	Acquiring company	Home economy	Industry of the acquiring company
31	3.0	Chris-Craft Industries Inc	Television broadcasting stations	United States	News Corp Ltd	Australia	Newspapers: publishing, or publishing & printing
32	2.8	Equant NV	Computer integrated systems design	Netherlands	France Telecom SA(France)	France	Telephone communications, except radiotelephone
33	2.8	Michigan National Corp	National commercial banks	United States	ABN-AMRO Holding NV	Netherlands	Commercial banks
34	2.7	AMS-Missiles Systems Div	Guided missiles and space vehicles	United Kingdom	Matra BAe Dynamics	France	Guided missiles and space vehicles
35	2.7	Japan Telecom Co Ltd	Telephone communications, except radiotelephone	Japan	Vodafone Group PLC	United Kingdom	Radiotelephone communications
36	2.7	Le Meridien Hotels(Compass)	Hotels and motels	United Kingdom	Grand Hotels(M)Acquisition Co	United Kingdom	Investors
37	2.6	C-Mac Industries Inc	Computer programming services	Canada	Solectron Corp	United States	Printed circuit boards
38	2.6	Galileo Technology Ltd	Semiconductors and related devices	Israel	Marvell Technology Group Ltd	Bermuda	Semiconductors and related devices
39	2.6	Global One Co-Data Business	Telephone communications, except radiotelephone	Belgium	Equant NV	Netherlands	Computer integrated systems design
40	2.6	CGU Insurance Group(CGNU Plc)	Fire, marine, and casualty insurance	United States	White Mountains Insurance	Bermuda	Mortgage bankers and loan correspondents
41	2.5	Swisscom Mobile(Swisscom AG)	Telephone communications, except radiotelephone	Switzerland	Vodafone Group PLC	United Kingdom	Radiotelephone communications
42	2.5	Energie Baden-Wuerttemberg AG	Electric services	Germany	EDF	France	Electric services
43	2.5	BancWest Corp,Honolulu,HI	State banks,member fed reserve	United States	BNP Paribas SA	France	Commercial banks
44	2.4	NatSteel Electronics Pte Ltd	Computer storage devices	Singapore	Solectron Corp	United States	Printed circuit boards
45	2.3	ACNielsen Corp	Management consulting services	United States	Verenigd Bezit VNU	Netherlands	Newspapers: publishing, or publishing & printing
46	2.3	Centura Bank Inc,NC	National commercial banks	United States	Royal Bank of Canada	Canada	Commercial banks
47	2.3	Freeserve PLC(Dixons Group)	Information retrieval services	United Kingdom	Wanadoo(France Telecom SA)	France	Information retrieval services
48	2.3	Homestake Mining Co	Gold ores	United States	Barrick Gold Corp	Canada	Gold ores
49	2.3	Houghton Mifflin Co	Books: publishing, or publishing & printing	United States	Vivendi Universal SA	France	Motion picture and video tape production
50	2.3	Cognis BV(Henkel KGaA)	Industrial inorganic chemicals	Netherlands	Investor Group	Germany	Investors
51	2.3	DiAx AG	Telephone communications, except radiotelephone	Switzerland	TeleDanmark A/S	Denmark	Telephone communications, except radiotelephone
52	2.2	Nicholas-Applegate Capt Mgmt	Investment advice	United States	Allianz AG	Germany	Life insurance
53	2.2	Japan Telecom Co Ltd	Telephone communications, except radiotelephone	Japan	Vodafone Group PLC	United Kingdom	Radiotelephone communications
54	2.2	Sensormatic Electronics Corp	Security systems services	United States	Tyco International Ltd	Bermuda	General industrial machinery and equipment
55	2.2	Alliant Exchange Inc(Clayton)	Groceries, general line	United States	Koninklijke Ahold NV	Netherlands	Grocery stores
56	2.2	Maroc Telecom	Telephone communications, except radiotelephone	Morocco	Vivendi Universal SA	France	Motion picture and video tape production
57	2.1	Lucent Tech-Optical Fibre Unit	Drawing and insulating of nonferrous wire	United States	Furukawa Electric Co Ltd	Japan	Electrical apparatus and equip
58	2.1	Mellon Fin-Retail Banking Bus	Commercial banks	United States	Citizens Financial Group,RI	United States	Savings institutions, not federally chartered
59	2.1	Harcourt General-Higher Ed Bus	Books: publishing, or publishing & printing	United States	Thomson Corp	Canada	Newspapers: publishing, or publishing & printing
60	2.1	Technicolor Holdings Inc	Photographic equipment and supplies	United States	Thomson Multimedia(Thomson)	France	Household audio and video

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Annex table A.I.2. Cross-border M&A deals with values of over $1 billion completed in 2001 (continued)

Rank	Value ($ billion)	Acquired company	Industry of the acquired company	Host economy	Acquiring company	Home economy	Industry of the acquiring company
61	2.0	Canadian Hunter Exploration	Crude petroleum and natural gas	Canada	Burlington Resources Inc	United States	Crude petroleum and natural gas
62	2.0	Laporte PLC	Industrial organic chemicals	United Kingdom	Degussa SKW Co	Germany	Investors
63	2.0	Lincoln Re(Lincoln National)	Life insurance	United States	Swiss Reinsurance Co	Switzerland	Life insurance
64	1.8	Delhaize America Inc	Grocery stores	United States	Etablissements Delhaize Freres	Belgium	Department stores
65	1.8	Bestfoods Baking(Bestfoods)	Bread and other bakery products, except cookies	United States	George Weston Ltd	Canada	Bread and other bakery products, except cookies
66	1.7	Sakhalin-1	Crude petroleum and natural gas	Russian Federation	ONGC Videsh(Oil & Natural Gas)	India	Crude petroleum and natural gas
67	1.7	Agilent Tech-Healthcare Solut	Surgical and medical instruments and apparatus	United States	Koninklijke Philips Electronic	Netherlands	Household audio and video equipment
68	1.7	Keyport Life,Independent Finl	Life insurance	United States	Sun Life Finl Svcs of CA Inc	Canada	Life insurance
69	1.7	Pacific Century Cyber-Wireless	Radiotelephone communications	Hong Kong, China	Telstra Corp Ltd(Australia)	Australia	Telephone communications, except radiotelephone
70	1.7	Georgia-Pacific Corp-Mills (4)	Paper mills	United States	Domtar Inc	Canada	Paper mills
71	1.6	IPC Group Ltd(Cinven)	Periodicals: publishing, or publishing & printing	United Kingdom	AOL Time Warner Inc	United States	Television broadcasting stations
72	1.6	Motorola Inc-Norcel,Cedetel,	Telephone communications, except radiotelephone	Mexico	Telefonica Servicios Moviles	Spain	Telephone communications, except radiotelephone
73	1.6	JC Penney Co-Direct Marketing	Insurance agents, brokers, and service	United States	Aegon NV	Netherlands	Life insurance
74	1.6	mediaWays GmbH(Bertelsmann)	Information retrieval services	Germany	Telefonica SA	Spain	Telephone communications, except radiotelephone
75	1.6	Airtel SA(Vodafone Airtouch)	Radiotelephone communications	Spain	Vodafone Group PLC	United Kingdom	Radiotelephone communications
76	1.6	Silicon Valley Group Inc	Semiconductors and related devices	United States	ASM Lithography Holding NV	Netherlands	Semiconductors and related devices
77	1.5	Reynolds Australia Alumina	Aluminum foundries	Australia	Billiton PLC	United Kingdom	Miscellaneous metal ores
78	1.5	Efficient Networks Inc	Telephone&telegraph apparatus	United States	Siemens Info & Commun Grp	United States	Telephone&telegraph apparatus
79	1.4	Immo & Bau Bankges Berlin GmbH	Real estate agents and managers	Germany	Greico Inc	Cayman Islands	Investors
80	1.4	Innogy-Yorkshire Electric Dist	Electric services	United Kingdom	Northern Electric(CE Electric)	United Kingdom	Electric services
81	1.4	Avesta Sheffield AB(British)	Steel works, blast furnaces, and rolling mills	Sweden	Outokumpu Steel Oyj(Outokumpu)	Finland	Steel works, blast furnaces, and rolling mills
82	1.4	Dain Rauscher Corp	Security brokers, dealers, and flotation companies	United States	Royal Bank of Canada	Canada	Commercial banks
83	1.3	Sky Chefs Inc	Eating places	United States	LSG Lufthansa Service Holding	Germany	Eating places
84	1.3	Kyoei Life Insurance Co	Life insurance	Japan	Prudential Insurance Co	United States	Life insurance
85	1.3	Coca-Cola Bottlers Philippines	Bottled & canned soft drinks & carbonated waters	Philippines	Investor Group	Unspecified	Investors
86	1.3	Wasserstein Perella Group Inc	Security brokers, dealers, and flotation companies	United States	Dresdner Bank AG	Germany	Commercial banks
87	1.3	VNU NV-Consumer Unit	Periodicals: publishing, or publishing & printing	Netherlands	Sanoma-WSOY Oyj	Finland	Newspapers: publishing, or publishing & printing
88	1.2	Esat Digifone(Esat, Telenor)	Telephone&telegraph apparatus	Ireland	British Telecommunications PLC	United Kingdom	Telephone communications, except radiotelephone
89	1.2	Block Drug Co	Dental equipment and supplies	United States	SmithKline Beecham PLC	United Kingdom	Medicinal chemicals and botanical products
90	1.2	Fletcher Challenge Energy	Crude petroleum and natural gas	New Zealand	Shell Overseas Holdings Ltd	United Kingdom	Petroleum bulk stations and terminals

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Annex table A.I.2. Cross-border M&A deals with values of over $1 billion completed in 2001 (concluded)

Rank	Value ($ billion)	Acquired company	Host economy	Industry of the acquired company	Acquiring company	Home economy	Industry of the acquiring company
91	1.2	Sidel SA	France	Special industry machinery	Tetra Laval SA	France	Packaging machinery
92	1.2	Wisconsin Central Transport	United States	Railroads, line-haul operating	Canadian National Railway Co	Canada	Railroads, line-haul operating
93	1.2	LG Electronics-Cathode Ray	Republic of Korea	Electron tubes	Philips-Cathode Ray Tube Ops	Netherlands	Electron tubes
94	1.2	Banco do Estado de Sao Paulo	Brazil	Commercial banks	Banco Santander Central Hispan	Spain	Commercial banks
95	1.2	Simplex Time Recorder Co	United States	Communications equipment	Tyco International Ltd	Bermuda	General industrial machinery and equipment
96	1.1	Glynwed Intl-Pipe Systems	United Kingdom	Plastics pipe	Etex Group SA(Fineter SA)	Belgium	Plastics pipe
97	1.1	Sodexho Marriott Services Inc	United States	Eating places	Sodexho Alliance SA	France	Hotels and motels
98	1.1	Condea Chemie GmbH(RWE)	Germany	Industrial organic chemicals	Sasol Ltd	South Africa	Petroleum refining
99	1.1	Global Telecom SA	Brazil	Telephone communications, except radiotelephone	Telesp Celular Participacoes	Brazil	Telephone communications, except radiotelephone
100	1.1	Marconi plc-Medical Operations	United Kingdom	Surgical and medical instruments and apparatus	Koninklijke Philips Electronic	Netherlands	Household audio and video equipment
101	1.1	Encal Energy Ltd	Canada	Crude petroleum and natural gas	Calpine Corp	United States	Electric services
102	1.1	Superdiplo SA	Spain	Grocery stores	Koninklijke Ahold NV	Netherlands	Grocery stores
103	1.1	Degussa Metals Catalysts AG	Germany	Jewelry, precious metal	OM Group Inc	United States	Industrial inorganic chemicals
104	1.1	Noos	France	Cable and other pay television services	Investor Group	United States	Investors
105	1.1	AssiDoman AB-Corrugated Board	Sweden	Paperboard mills	Kappa Alpha Holdings	Netherlands	Investors
106	1.1	Euralux SA(Eurafrance/Lazard)	Luxembourg	Offices of holding companies	Mediobanca SpA	Italy	Commercial banks
107	1.1	Westfield America Inc	United States	Real estate investment trusts	Westfield America Trust	Australia	Real estate investment trusts
108	1.0	Baloise Holding AG	Switzerland	Life insurance	Strategic Money Management Co	Netherlands	Investment offices
109	1.0	Gucci Group NV	Netherlands	Women's handbags and purses	Credit Lyonnais SA	France	Commercial banks
110	1.0	Hepworth PLC	United Kingdom	Fabricated plate work (boiler shops)	Vaillant GmbH	Germany	Heating equipment
111	1.0	Komercni Banka	Czech Republic	Commercial banks	Societe Generale SA	France	Commercial banks
112	1.0	Berkley Petroleum Corp	Canada	Crude petroleum and natural gas	Anadarko Petroleum Corp	United States	Crude petroleum & natural gas
113	1.0	Cambridge Protection-Security	United States	Security systems services	Tyco International Ltd	Bermuda	General industrial machinery and equipment

Source: UNCTAD, cross-border M&A database.

Note: Host and home economies represent the immediate partner economy of the transaction. Thus, for the M&A deals whose home economy is identical to the host economy, the ultimate parent economy is different. Therefore, they are considered as cross-border M&As. The data cover the deals involving the acquisition of an equity stake of more than 10 per cent.

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Annex table A.I.3. Number of parent corporations and foreign affiliates, by region and economy, latest available year

(Number)

Region/economy	Year	Parent corporations based in economy [a]	Foreign affiliates located in economy [a]
Developed economies		**50 250** [b]	**100 825** [b]
Western Europe		**40 580**	**70 710**
European Union		**35 096** [b]	**61 685** [b]
Austria	2000	917	2 588 [c]
Belgium/Luxembourg	1997	988 [d]	1 504 [d]
Denmark	1998	9 356	2 305 [e]
Finland	2000	900 [f]	1 936 [c, e]
France	2000	1 922	9 473
Germany	2000	8 522	13 267 [g]
Greece	1991	..	798
Ireland	2001	39 [h]	1 183 [i]
Italy	1999	1 017 [j]	1 843 [j]
Netherlands	1993	1 608 [k]	3 132 [c, l]
Portugal	2000	1 100 [m]	3 000 [m]
Spain	1998	857 [n]	7 465
Sweden [o]	2001	4 662	4 582
United Kingdom [p]	2001	3 208	8 609
Other Western Europe		**5 484** [b]	**9 025** [b]
Gibraltar	2001	..	22
Iceland	1999	78	47
Malta	1999	..	82
Norway	2000	900 [q, r]	3 100 [q]
Switzerland	1995	4 506	5 774
North America		**4 985** [b]	**23 200** [b]
Canada	1997	1 722	7 501 [c, l]
United States	1999	3 263 [s]	15 699 [t]
Other developed countries		**4 685** [b]	**6 915** [b]
Australia	2001	682	2 352
Israel	2001	..	98
Japan	2000	3 786 [u]	3 359 [v]
New Zealand	1998	217	1 106
Developing economies		**13 492** [b]	**494 900** [b]
Africa		**1 156** [b]	**6 100** [b]
Algeria	2001	..	14
Angola	2001	2	23
Benin	2001	..	10
Botswana	2001	..	9
Burkina Faso	2001	1	10
Burundi	2001	..	3
Cameroon	2001	..	58
Central African Republic	2001	..	5
Chad	2001	..	4
Congo	2001	..	24
Cote d'Ivoire	2001	..	117
Democratic Republic of the Congo	2001	4	4
Djibouti	2001	1	7
Egypt	1999	..	99
Equatorial Guinea	2001	..	2
Ethiopia	2001	4	16
Gabon	2001	..	39
Gambia	2001	..	5
Ghana	2001	..	67
Guinea-Bissau	2001	..	1
Kenya	2001	..	114
Lesotho	2001	..	411
Liberia	2001	..	11
Madagascar	2001	..	28
Malawi	2001	..	1
Mali	2001	1	33
Mauritania	2001	2	2
Mauritius	1999	..	20
Morocco	2001	..	206
Mozambique	2001	5	22
Namibia	2001	..	6
Niger	2001	1	6
Nigeria	2001	..	69
Rwanda	2001	..	2
Senegal	2001	6	38

Annex table A.I.3.   Number of parent corporations and foreign affiliates, by region and economy, latest available year

(Number)

Region/economy	Year	Parent corporations based in economy [a]	Foreign affiliates located in economy [a]
Seychelles	1998	-	30
Sierra Leone	2001	1	3
Somalia	2001	1	..
South Africa	1998	941	2 044
Sudan	2001	2	5
Swaziland	2001	12	53
Togo	2001	3	9
Tunisia	2001	142 [f]	2 339
United Republic of Tanzania	2001	15	34
Uganda	2001	..	30
Zambia	2001	4	31
Zimbabwe	1998	8	36
Latin America and the Caribbean		**2 022** [b]	**27 577** [b]
Antigua and Barbuda	2001	..	7
Argentina	2001	..	1 058
Aruba	2001	..	25
Bahamas	2001	..	100
Barbados	2001	..	83
Belize	2001	..	6
Bermuda	2001	..	217
Bolivia	1996	..	257
Brazil	1998	1 225	8 050
British Virgin Islands	2001	..	74
Cayman Islands	2001	..	236
Chile	1998	478 [w]	3 173 [x]
Colombia	1995	302	2 220
Costa Rica	2001	..	137
Dominica	2001	..	2
Dominican Republic	2001	..	105
Ecuador	1999	..	121
El Salvador	1990	..	225
Grenada	2001	..	8
Guatemala	1985	..	287
Guyana	2000	4 [f]	59
Haiti	2001	3	7
Honduras	2001	..	45
Jamaica	1998	..	177
Mexico	1993	..	8 420
Netherlands Antilles	2001	..	143
Nicaragua	2001	..	31
Panama	2001	..	386
Paraguay	1995	..	109
Peru	1997	10 [y]	1 183 [z]
St. Kitts and Nevis	2001	..	3
Saint Lucia	2001	..	13
Saint Vincent and the Grenadines	2001	..	6
Suriname	2001	..	10
Trinidad & Tobago	1999	..	65 [aa]
Uruguay	1997	..	123
Venezuela	1999	..	406
Asia		**10 289** [b]	**460 668** [b]
South, East and South-East Asia		**9 834** [b]	**450 607** [b]
Afghanistan	2001	..	3
Bangladesh	2001	10	13
Bhutan	1997	..	2
Brunei	2001	..	17
Cambodia	1997	..	598 [ab]
China	2000	379 [ac]	363 885 [ad]
Hong Kong, China	1998	819 [ae]	6 247 [af]
India	1995	187 [ag]	1 416
Indonesia	1995	313	2 241 [af]
Lao People's Democratic Republic	1997	..	669 [ah]
Macau	2001	..	53
Malaysia	1999	..	15 567 [ai]
Maldives	2001	..	2
Mongolia	1998	..	1 400
Myanmar	2001	..	5
Nepal	2001	1	3
Pakistan	2000	59 [r]	644
Philippines	1995	..	14 802 [aj]
Republic of Korea	2001	7 460 [ak]	11 515

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**Annex table A.I.3.   Number of parent corporations and foreign affiliates,
by region and economy, latest available year**

(Number)

Region/economy	Year	Parent corporations based in economy [a]	Foreign affiliates located in economy [a]
Singapore	1999	..	24 114
Sri Lanka	1998	..	305 [al]
Taiwan Province of China	2001	606 [am]	2 841
Thailand	1998	..	2 721 [an]
Viet Nam	1996	..	1 544
West Asia		**455** [b]	**2 373** [b]
Bahrain	2001	..	50
Cyprus	2001	..	169
Iran	2001	..	29
Jordan	2001	..	14
Kuwait	2001	..	16
Lebanon	2001	..	58
Oman	1995	92 [ao]	351 [ao]
Qatar	2001	..	15
Saudi Arabia	1989	..	1 461
Syrian Arab Republic	2001	..	8
Turkey	1995	357	136
United Arab Emirates	1999	..	59
Yemen	2001	6	7
Central Asia		**-**	**7 688** [b]
Armenia	1999	..	1 604 [ap]
Azerbaijan	2001	..	11
Georgia	1998	..	190 [aq]
Kazakhstan	1999	..	1 865 [ar]
Kyrgzstan	1998	..	4 004 [as]
Uzbekistan	2001	..	14
The Pacific		**25** [b]	**555** [b]
Fiji	1997	..	151
Kiribati	2001	..	1
New Caledonia	2001	..	3
Papua New Guinea	1998	..	345 [at]
Samoa	2001	7	10
Solomon Islands	2001	7	17
Tonga	2001	..	5
Vanuatu	2001	11	23
Central and Eastern Europe		**850** [b]	**255 442** [b]
Albania	1995	..	2 422 [au]
Belarus	1994	..	393
Bosnia & Herzegovina	1999	..	7
Bulgaria	2000	26 [h]	7 153 [av]
Croatia	1997	70	353
Czech Republic	1999	660 [aw]	71 385 [ax]
Estonia	1999	..	3 066 [ay]
Hungary	1999	..	26 433 [az]
Latvia	2001	..	193
Lithuania	1999	16 [ad]	1 893
Poland	1998	58 [ba]	35 840 [bb]
Romania	2001	20 [ba]	83 934 [bc]
Russian Federation	1994	..	7 793
Slovakia	1997	..	5 560 [bd]
Slovenia	2000	..	1 655 [be]
Ukraine	1999	..	7 362
World		**64 592**	**851 167**

Source: UNCTAD, based on national sources and *Who Owns Whom CD-ROM 2002* (Dun & Bradstreet).

[a]   Represents the number of parent companies/foreign affiliates in the economy shown, as defined by that economy. Deviations from the definition adopted in the World Investment Report (see section on definitions and sources in the annex B) are noted below. The data for Afghanistan, Algeria, Angola, Antigua and Barbuda, Argentina, Aruba, Azerbaijan, Bahamas, Bahrain, Bangladesh, Barbados, Belize, Benin, Bermuda, Bosnia and Herzegovina, Botswana, British Virgin Islands, Brunei, Burkina Faso, Burundi, Cameroon, Cayman Islands, Central African Republic, Chad, Congo, Costa Rica, Cote d'Ivoire, Cyprus, Democratic Republic of the Congo, Djibouti, Dominica, Dominican Republic, Ecuador, Equatorial Guinea, Ethiopia, Gabon, Gambia, Ghana, Gibraltar, Grenada, Guinea-Bissau, Haiti, Honduras, Iran, Israel, Jordan, Kenya, Kiribati, Kuwait, Latvia, Lebanon, Lesotho, Liberia, Macau, Madagascar, Malawi, Maldives, Mali, Malta, Mauritania, Mauritius, Morocco, Mozambique, Myanmar, Namibia, Nepal, Netherlands Antilles, New Caledonia, Nicaragua, Niger, Nigeria, Panama, Qatar, Rwanda, Senegal, Sierra Leone, Solomon Islands, Somalia, St. Lucia, St. Kitts and Nevis, St. Vincent and the Grenadin, Sudan, Suriname, Syria, Togo, Tonga, Uganda, United Arab Emirates, United Republic of Tanzania, Uzbekistan, Vanuatu, Venezuela, Western Samoa, Yemen, and Zambia

are from Who Owns Whom CD-Rom 2002 (London, Dun & Bradstreet).

[b] Includes data for only the countries shown below.

[c] Majority-owned foreign affiliates.

[d] Provisional figures by Banque Nationale de Belgique.

[e] Directly and indirectly owned foreign affiliates (subsidiaries and associates), excluding branches.

[f] As of 1999.

[g] Does not include the number of foreign-owned holding companies in Germany which, in turn, hold participating interests in Germany (indirect foreign participating interests).

[h] As of 1994.

[i] Refers to the number of foreign-owned affiliates in Ireland in manufacturing and services activities which receive assistance from the Investment and Development Authority (IDA).

[j] Relates to parent companies and foreign affiliates industrial activities (based on Consiglio Nazionale dell'Economia e del Lavoro, "*Italia Multinazionale, 2000, inward and outward FDI in the Italian industry in 1998 and 1999*" April 2002.

[k] As of October 1993.

[l] *Source*: OECD, 2002.

[m] Preliminary estimate. The number of parent TNCs in Portugal as of 1999.

[n] Includes those Spanish parent enterprises which, at the same time, are controlled by a direct investor.

[o] Data provided by Sveriges Riksbank. Includes those Swedish parent companies which, at the same time, are controlled by a direct investor.

[p] Data on the number of parent companies based in the United Kingdom, and the number of foreign affiliates in the United Kingdom are based on the register of companies held for inquiries on the United Kingdom FDI abroad, and FDI into the United Kingdom conducted by the Central Statistical Office. On that basis, the numbers are probably understated because of the lags in identifying investment in greenfield sites and because some companies with small presence in the United Kingdom and abroad have not yet been identified.

[q] Approximation by Norges Bank.

[r] As of 1998.

[s] Represents a total of 2,494 non-bank parent companies in 1999 and 60 bank parent companies in 1994 with at least one foreign affiliate whose assets, sales or net income exceeded $3 million, and 709 non-bank and bank parent companies in 1994 whose affiliate(s) had assets, sales and net income under $3 million. Each parent company represents a fully consolidated United States business enterprise, which may consist of a number of individual companies.

[t] Represents a total of 438 bank affiliates in 1997 and 9,355 non-bank affiliates in 1999 whose assets, sales or net income exceeded $3 million, and 5,906 bank and non-bank affiliates in 1996 with assets, sales, net income less than or equal to $3 million. Each affiliate represents a fully consolidated United States business entreprise, which may consist of a number of individual companies.

[u] Japanese firms with at least two foreign affiliates that have a more than 20 per cent equity share. *Source*: Toyokeizai, *Kaigai Shinshutsu Kigyo Soran 2001 (*Tokyo: Toyokeizai Shinposha, 2001).

[v] Only foreign affiliates with a more than 20 per cent foreign equity share. *Source*: Toyokeizai, *Gaishikei Kigto Soran 2001* (Tokyo: Toyokeizai Shinposha, 2001).

[w] Estimated by the Comité de Inversiones Extranjeras.

[x] Number of foreign companies registred under DL600.

[y] Less than 10.

[z] Out of this number, 811 are majority-owned foreign affiliates, while 159 affiliates have less than 10 per cent equity share.

[aa] An equity stake of 25 per cent or more of the ordinary shares or voting power.

[ab] Number of projects approved, both domestic and foreign, since August 1994.

[ac] As of 1989.

[ad] Cumulative number of registered industrial enterprises with foreign capital.

[ae] Number of regional headquarters as at 1 June 1998.

[af] As of 1996.

[ag] As of 1991.

[ah] Number of projects licensed since 1988 up to end 1997.

[ai] May 1999. Refers to companies with foreign equity stakes of 51 per cent and above. Of this, 3,787 are fully owned foreign affiliates.

[aj] This figure refers to directly and indirectly owned foreign affiliates.

[ak] As of 1999. Data refer to the number of investment projects abroad.

[al] Number of projects approved under section 17 of the BOI law which provides for incentives.

[am] Number of approved new investment projects abroad in 1998.

[an] Data refer to the number of BOI-promoted companies which have been issued promotion certificates during the period 1960-1998, having at least 10 per cent of foreign equity participation.

[ao] As of May 1995.

[ap] Accumulated number of joint ventures and foreign enterprises registered as of 1 November 1999.

[aq] Number of cases of approved investments of more than 100,000 dollars registered during the period of January 1996 up to March 1998.

[ar] Joint ventures and foreign firms operating in the country.

[as] Joint venture companies established in the economy.

[at] Number of applications received since 1993.

[au] 1,532 joint ventures and 890 wholly-owned foreign affiliates.

[av] The number refers to registered investment projects between 1992 and 2000, Bulgarian Foreign Investment Agency, January 2002.

[aw] As of 1997.

[ax] Out of this number 53,775 are fully-owned foreign affiliates. Includes joint ventures.

[ay] As of 15 March 1999. Only registered affiliates with the Estonian Commercial Register.

[az] *Source*: Hungary Statistics Office.

[ba] As of 1994.

[bb] Number of firms with foreign capital.

[bc] As of March 2002, Chamber of Commerce and Industry of Romania.

[bd] Includes joint ventures with local firms.

[be] *Source*: Bank of Slovenia.

Note: The data can vary significantly from preceding years, as data become available for countries that had not been covered before, as definitions change, or as older data are updated.

Annex table A.I.4. Comparison between FDI inward stock and assets of foreign affiliates in selected host economies, latest available year
(Billions of dollars)

Host economy	Year	FDI inward stock	Assets	Ratio of assets to FDI stock
Developed countries				
Austria	1999	23.4	91.1[a]	3.9
Finland	1999	16.5	67.9	4.1
Germany	1999	251.2	614.4	2.4
Japan	1998	26.1	116.5[b]	4.5
Norway	1998	25.9	88.2	3.4
United States	1999	1 087.3	4 135.2[c]	3.8
Developing economies				
China	1997	221.9	220.9	1.0
Brazil	1995	42.5	152.4	3.6
Hong Kong, China	1997	94.6	7.0[d]	0.1
India	1995	5.6	4.1	0.7
Malaysia	1997	42.5	7.3[e]	0.2
Singapore	1999	79.4	16.0	0.2
Taiwan Province of China	1994	14.2	24.4[f]	1.7
Viet Nam	1996	8.8	5.9[g]	0.7

Source: UNCTAD FDI/TNC database.

[a] The value of assets was estimated by applying the percentage share of the foreign investor's participation in equity capital of all firms to total assets of all firms.
[b] Not including the banking and financial sectors. Data refer to firms with foreign participation of more than one third of the shares.
[c] Non-bank all affiliates.
[d] Data refer to the secondary sector only.
[e] Data are on an approval basis. The figure represents fixed assets in the secondary sector only.
[f] Data represents fixed assets only.
[g] As of end June.

Annex table A.I.5. Labour productivity[a] of foreign affiliates and domestic firms in manufacturing in selected host economies, latest available year

(Thousands of employees, millions of dollars for value added and dollars for labour productivity)

Economy	Year	Foreign affiliates			Domestic firms		
		Employment	Value added	Labour productivity[a]	Employment	Value added	Labour productivity[a]
Developed countries							
Finland	1998	52.8	3 696.5	70 005	361.1	24 345.6	67 414
France[c]	1996	807.0	61 307.4	75 970	2 982.2	303 385.6	101 732
Ireland[c]	1998	115.2	30 916.5	268 272	130.5	3 205.7	24 571
Japan	1998	177.5	12 300.4	69 284	12 433.5	669 858.8	53 875
Netherlands[c]	1996	160.5	16 978.5	105 793	506.3	35 176.4	69 477
Norway	1992	18.0	1 080.5	59 911	227.1	12 513.6	55 100
Portugal[c]	1998	79.0	2 783.7	35 234	926.9	19 155.0	20 665
Sweden[b, c]	1999	397.7	27 377.1	68 845	176.5	13 661.7	77 417
United Kingdom	1997	745.8	59 221.3	79 402	3 389.2	175 846.7	51 885
United States[d]	1999	2 274.8	236 165.0	103 818	17 795.2	1 264 635.0	71 066
Developing economies							
China[b]	1997	5 987.9	43 105.6	7 199	55 594.1	146 372.5	2 633
Hong Kong, China	1994	67.5	2 422.0	35 881	355.5	9 335.0	26 259
Malaysia	1995	526.7	12 082.7	22 940	842.3	11 727.0	13 923
Singapore	1998	133.1	15 004.9	112 711	173.7	3 833.8	21 781
Taiwan Province of China	1994	258.6	25 131.7	97 193	2 180.1	44 763.5	20 533

Source: UNCTAD, based on FDI/TNC database (data for foreign affiliates) and UNIDO Industrial Statistics Database (data for all firms).

[a] Defined as value added divided by the number of employees; expressed as value added in dollars per employee.
[b] All industries.
[c] Majority-owned foreign affiliates.
[d] Data for value added and employment in the manufacturing sector for all firms were taken from the United States Census Bureau, Statistical Abstract of the United States: 2001 (tables no. 971 and no. 596, respectively). Data for foreign affiliates were taken from the United States Bureau of Economic Analysis, Survey of Current Business, August 2001 (tables 3 and 5).

Note: The data related to domestic firms are calculated as the difference between those of foreign affiliates and those of all firms in the manufacturing sector.

Annex table A.I.6. Data for the transnationality index of host economies, 1999

Economy	FDI inflows as a percentage of GDCF, average 1997-1999	FDI inward stock as a percentage of GDP	Value added of foreign affiliates as a percentage of GDP	Employment of foreign affiliates as a percentage of total employment	Transnationality index
Developed economies:					
Australia	7.1	30.2	17.4	12.2	16.7
Austria	6.9	11.2	10.2	10.5	9.7
Belgium / Luxembourg	90.9	105.3	43.3	24.6	66.0
Canada	16.1	26.5	15.0	12.8	17.6
Denmark	19.9	20.7	14.9	16.3	17.9
Finland	26.3	14.3	9.5	10.1	15.0
France	12.7	16.7	4.1	4.2	9.4
Germany	6.8	13.5	16.4	5.7	10.6
Greece	2.2	17.6	27.8	10.6	14.5
Ireland	47.5	45.4	40.2	9.8	35.7
Israel	9.1	17.9	8.7	10.2	11.5
Italy	2.0	9.2	3.4	3.7	4.6
Japan	0.6	1.0	0.4	0.5	0.6
Netherlands	37.9	48.4	10.1	4.3	25.2
New Zealand	14.4	59.9	22.4	15.8	28.1
Norway	12.4	20.0	19.2	2.0	13.4
Portugal	8.2	19.8	6.2	3.8	9.5
Spain	9.5	19.2	15.5	14.6	14.7
Sweden	78.9	30.5	11.5	10.9	33.0
Switzerland	17.3	30.1	5.3	4.8	14.4
United Kingdom	25.6	25.2	4.1	3.0	14.5
United States	12.8	10.5	4.9	4.5	8.2
Developing economies:					
Argentina	25.3	22.0	11.2	8.0	16.6
Bahamas	26.3	29.5	9.2	1.6	16.6
Barbados	3.9	11.6	13.1	0.2	7.2
Brazil	18.3	31.0	14.6	5.0	17.2
Chile	38.0	58.0	13.9	3.7	28.4
China	12.9	30.9	4.3	9.5	14.4
Colombia	18.1	22.9	13.8	6.3	15.3
Costa Rica	19.6	30.6	8.5	8.5	16.8
Dominican Republic	21.9	24.6	19.8	2.8	17.2
Ecuador	24.1	32.7	11.6	1.9	17.5
Egypt	9.2	22.0	13.8	1.8	11.7
Guatemala	9.6	17.5	9.0	7.9	11.0
Honduras	10.6	22.2	70.7	6.3	27.5
Hong Kong, China	36.7	256.1	98.5	2.5	98.4
India	3.0	3.7	0.8	4.1	2.9
Indonesia	-0.9	46.1	23.3	0.9	17.3
Jamaica	18.6	39.7	4.4	0.6	15.8
Malaysia	17.1	62.2	26.8	16.6	30.7
Mexico	14.2	16.3	8.8	7.0	11.6
Nigeria	22.0	55.4	86.8	1.0	41.3
Panama	43.0	70.2	-0.7	0.4	28.2
Peru	15.4	17.2	7.6	2.4	10.6
Philippines	8.0	14.7	12.8	2.4	9.5
Republic of Korea	5.2	7.9	3.1	2.2	4.6
Saudi Arabia	8.1	19.5	4.1	3.2	8.7
Singapore	27.3	98.8	23.7	10.4	40.1
South Africa	8.6	39.8	22.5	23.0	23.5
Taiwan Province of China	2.7	8.0	15.0	4.1	7.4
Thailand	20.8	21.7	8.4	2.1	13.2
Trinidad and Tobago	52.3	94.7	29.4	3.8	45.1
Turkey	1.8	4.5	6.2	3.9	4.1
United Arab Emirates	-1.4	3.3	4.7	1.1	1.9
Venezuela	26.1	21.0	9.1	2.2	14.6
Countries of Central and Eastern Europe :					
Albania	9.6	11.5	0.9	1.4	5.8
Belarus	9.6	9.5	0.6	0.3	5.0
Bosnia and Herzegovina	2.5	3.6	0.2	0.2	1.6
Bulgaria	41.1	19.4	1.7	5.4	16.9
Croatia	22.1	20.1	5.2	8.1	13.9
Czech Republic	24.0	32.1	10.2	4.2	17.6
Estonia	27.5	47.6	8.4	9.4	23.2
Hungary	18.9	40.2	24.0	27.4	27.6
Latvia	30.5	27.0	5.5	10.4	18.3
Lithuania	23.7	19.3	3.8	5.9	13.2
Macedonia, TFYR	9.7	6.2	0.8	2.8	4.8
Moldova, Republic	19.1	26.8	0.6	0.9	11.9
Poland	16.3	17.1	5.0	7.8	11.5
Romania	19.7	15.5	1.6	0.9	9.4
Russian Federation	7.5	8.6	0.8	1.6	4.6
Slovakia	5.9	14.3	4.4	3.6	7.1
Slovenia	5.8	13.4	3.5	8.8	7.9
Ukraine	7.8	10.3	0.5	0.7	4.8
Yugoslavia	14.2	13.2	1.1	1.7	7.5

Source : UNCTAD estimates.

Annex table A.II.1. Raw data and scores for the variables included in the UNCTAD Inward FDI Potential Index, 1998-2000

Economy	Real GDP growth (Average 1990-2000) %	Score 0-1	GDP per capita Dollars	Score 0-1	Total exports (Average 1998-2000) As % of GDP	Score 0-1	Telephone mainlines Per 1,000 inhabitants	Score 0-1	Commercial energy use 1999 Per capita	Score 0-1	R&D expenditures (Average 1997-1999) As % of GNI[a]	Score 0-1	Students in tertiary education (Latest year available) As % of total population	Score 0-1	Country risk (As of February 2001) Composite risk rating	Score 0-1
Albania	3.3	0.699	1 115.6	0.029	14.4	0.054	35.3	0.050	311.0	0.006	..	..	1.1	0.183	62.8	0.428
Algeria	1.9	0.638	1 659.8	0.044	25.1	0.120	53.3	0.075	944.2	0.029	..	..	1.2	0.198	61.8	0.408
Angola	1.3	0.615	559.3	0.013	63.3	0.356	5.3	0.007	594.8	0.016	..	..	0.1	0.004	48.8	0.149
Argentina	4.3	0.744	7 905.0	0.221	10.3	0.029	205.6	0.291	1 727.2	0.056	0.4	0.117	3.0	0.512	69.5	0.562
Armenia	-1.9	0.476	497.5	0.011	21.1	0.095	154.7	0.219	485.4	0.012	0.2	0.048	1.0	0.167	57.8	0.329
Australia	4.1	0.732	20 529.2	0.580	19.6	0.086	516.4	0.731	5 690.4	0.197	1.7	0.464	5.7	0.975	80.8	0.787
Austria	2.1	0.648	25 122.5	0.710	45.9	0.248	476.7	0.675	3 513.5	0.120	1.6	0.437	3.0	0.507	83.8	0.847
Azerbaijan	-6.3	0.290	595.8	0.014	30.4	0.152	95.6	0.135	1 575.1	0.051	0.2	0.060	1.5	0.254	63.0	0.432
Bahamas	1.9	0.641	15 018.0	0.423	49.0	0.268	367.4	0.520	..	..	..	..	1.6	0.263	74.3	0.657
Bahrain	4.8	0.763	11 023.6	0.310	73.5	0.418	247.9	0.351	9 000.1	0.315	..	..	1.3	0.222	73.0	0.631
Bangladesh	4.8	0.764	339.6	0.007	13.1	0.046	3.4	0.004	139.3	0.000	0.0	0.003	0.4	0.055	62.3	0.418
Belarus	-1.6	0.487	1 231.6	0.032	62.0	0.348	256.0	0.362	2 381.2	0.080	0.8	0.223	3.2	0.542	59.5	0.363
Belgium and Luxembourg	2.2	0.654	24 641.9	0.696	83.1	0.478	608.2	0.861	6 909.0	0.241	1.6	0.420	3.5	0.605	85.5	0.880
Benin	4.7	0.761	369.4	0.007	28.0	0.138	7.4	0.010	322.9	0.007	..	..	0.2	0.037	..	..
Bolivia	4.0	0.729	1 022.5	0.026	18.7	0.080	59.7	0.084	561.8	0.015	1.5	0.402	1.4	0.237	69.0	0.552
Botswana	4.7	0.759	3 341.1	0.092	50.0	0.274	78.1	0.110	..	..	..	..	0.6	0.093	79.0	0.751
Brazil	2.9	0.683	3 793.1	0.105	9.7	0.025	150.3	0.212	1 068.2	0.033	0.8	0.225	1.1	0.191	64.0	0.452
Brunei Darussalam	2.2	0.652	15 376.5	0.433	..	..	245.9	0.348	4 341.0	0.149	..	..	0.4	0.065	86.3	0.896
Bulgaria	-2.1	0.468	1 519.6	0.040	49.3	0.269	341.1	0.483	2 217.7	0.074	0.6	0.148	3.1	0.535	69.0	0.552
Burkina Faso	4.9	0.768	211.8	0.003	12.4	0.041	4.0	0.005	..	..	0.1	0.035	0.1	0.008	63.0	0.432
Cameroon	1.7	0.632	613.2	0.014	25.5	0.123	6.1	0.008	419.2	0.010	..	..	0.2	0.035	63.5	0.442
Canada	2.9	0.682	21 358.7	0.603	43.7	0.235	657.3	0.930	7 928.9	0.277	1.7	0.451	5.8	1.000	84.3	0.857
Chile	6.8	0.848	4 688.4	0.130	29.2	0.145	210.4	0.297	1 687.9	0.055	0.6	0.148	2.6	0.443	74.8	0.667
China	10.3	1.000	795.1	0.020	23.4	0.109	89.1	0.126	868.2	0.026	0.1	0.011	0.5	0.079	73.5	0.641
Colombia	3.0	0.687	2 136.1	0.058	18.3	0.078	161.7	0.229	676.0	0.019	..	..	1.6	0.272	59.0	0.353
Congo	-0.4	0.540	851.3	0.021	74.7	0.426	7.6	0.010	245.4	0.004	..	..	0.5	0.082	59.5	0.363
Congo, Dem. Rep.	-5.2	0.335	115.4	0.000	26.6	0.129	0.3	0.000	293.0	0.005	..	..	0.2	0.028	46.3	0.100
Costa Rica	5.3	0.784	3 867.3	0.107	47.1	0.256	215.5	0.305	818.0	0.024	0.1	0.011	2.1	0.357	75.5	0.681
Côte d'Ivoire	3.5	0.707	680.0	0.016	46.6	0.253	14.9	0.021	388.3	0.009	..	..	0.4	0.058	56.5	0.303
Croatia	0.6	0.586	4 349.8	0.120	41.7	0.223	348.0	0.492	1 864.4	0.061	1.2	0.319	1.9	0.324	72.5	0.622
Cyprus	4.1	0.735	11 591.3	0.326	44.8	0.241	628.3	0.889	3 057.0	0.104	0.2	0.060	1.3	0.220	78.3	0.737
Czech Republic	0.9	0.597	5 258.9	0.146	63.6	0.358	370.8	0.525	3 754.0	0.129	1.2	0.315	2.0	0.342	73.0	0.631
Denmark	2.5	0.665	32 270.9	0.913	38.4	0.202	687.9	0.974	3 773.3	0.129	1.9	0.521	3.3	0.569	89.0	0.950
Dominican Republic	6.0	0.816	2 137.6	0.058	46.1	0.250	99.3	0.140	904.4	0.027	..	..	2.2	0.372	73.0	0.631
Ecuador	1.8	0.636	1 408.7	0.037	31.5	0.159	90.8	0.128	705.0	0.020	0.0	0.000	1.7	0.293	57.3	0.319
Egypt	4.6	0.754	1 351.5	0.035	16.6	0.068	75.3	0.106	708.8	0.020	1.9	0.527	1.3	0.221	69.5	0.562
El Salvador	4.7	0.760	2 038.9	0.055	25.7	0.124	81.3	0.115	650.8	0.018	2.2	0.599	1.9	0.322	74.5	0.661
Estonia	-0.5	0.538	3 616.7	0.100	84.3	0.485	354.8	0.502	3 286.3	0.112	0.7	0.177	3.0	0.513	76.5	0.701
Ethiopia	4.7	0.759	105.3	0.000	14.9	0.057	3.1	0.004	290.3	0.005	..	..	0.1	0.007	59.5	0.363

Annex table A.II.1. Raw data and scores for the variables included in the UNCTAD Inward FDI Potential index, 1998-2000 (continued)

Economy	Real GDP growth (Average 1990-2000)		GDP per capita		Total exports (Average 1998-2000)		Telephone mainlines		Commercial energy use 1999		R&D expenditures (Average 1997-1999)		Students in tertiary education (Latest year available)		Country risk (As of February 2001)	
	%	Score 0-1	Dollars	Score 0-1	As % of GDP	Score 0-1	Per 1,000 inhabitants	Score 0-1	Per capita	Score 0-1	As % of GNI[a]	Score 0-1	As % of total population	Score 0-1	Composite risk rating	Score 0-1
Finland	2.8	0.678	24 451.0	0.691	39.8	0.211	550.9	0.780	6 461.2	0.225	2.6	0.722	4.4	0.755	89.0	0.950
France	1.7	0.631	23 634.7	0.668	26.9	0.131	581.6	0.823	4 350.8	0.150	2.3	0.620	3.5	0.603	81.3	0.797
Gabon	2.8	0.679	3 864.3	0.107	55.1	0.305	32.2	0.045	1 341.9	0.043	..	..	0.4	0.065	67.8	0.528
Gambia	3.1	0.691	334.5	0.007	49.2	0.269	23.1	0.032	..	..	..	..	0.1	0.017	65.5	0.482
Georgia	-13.0	0.000	596.6	0.014	19.9	0.088	125.6	0.177	512.1	0.013	..	..	3.2	0.545	..	..
Germany	1.5	0.622	24 846.2	0.702	30.6	0.154	588.1	0.832	4 107.8	0.141	2.3	0.625	2.6	0.443	84.5	0.861
Ghana	4.3	0.741	361.5	0.007	37.3	0.195	9.1	0.012	376.7	0.008	..	..	0.1	0.003	55.8	0.289
Greece	2.1	0.649	11 296.3	0.318	21.9	0.100	527.3	0.746	2 552.1	0.086	0.5	0.122	3.4	0.587	76.5	0.701
Guatemala	4.1	0.735	1 699.5	0.045	19.2	0.083	52.9	0.074	547.8	0.015	..	..	0.8	0.126	69.5	0.562
Guinea	4.3	0.740	417.6	0.009	23.8	0.112	6.1	0.008	..	..	..	..	0.1	0.013	58.0	0.333
Guyana	5.4	0.790	928.3	0.023	95.5	0.554	74.9	0.106	..	..	..	..	1.1	0.178	64.3	0.458
Haiti	-0.6	0.530	499.2	0.011	11.1	0.034	8.6	0.012	264.9	0.004	..	..	0.1	0.008	58.0	0.333
Honduras	3.2	0.694	884.7	0.022	43.1	0.231	43.4	0.061	522.0	0.014	..	..	0.9	0.150	64.0	0.452
Hong Kong, China	4.0	0.727	23 922.0	0.676	137.6	0.814	576.0	0.815	2 661.3	0.090	..	..	1.5	0.252	78.8	0.747
Hungary	1.5	0.623	4 681.4	0.130	55.4	0.307	359.7	0.509	2 511.8	0.084	0.7	0.190	1.9	0.325	75.8	0.687
Iceland	2.8	0.676	30 500.1	0.863	34.4	0.177	675.5	0.956	11 434.2	0.402	2.0	0.538	2.9	0.492	78.0	0.731
India	6.0	0.813	441.8	0.010	12.2	0.040	26.8	0.037	481.6	0.012	0.6	0.168	0.6	0.103	63.8	0.448
Indonesia	4.2	0.736	620.0	0.015	42.2	0.226	29.1	0.041	657.5	0.018	0.1	0.014	1.1	0.190	54.8	0.269
Iran, Islamic Rep.	3.5	0.710	1 476.7	0.039	62.4	0.350	133.8	0.189	1 651.2	0.054	0.5	0.129	0.9	0.149	71.8	0.608
Ireland	7.3	0.873	24 503.6	0.692	90.1	0.521	441.4	0.625	3 725.8	0.128	1.5	0.413	3.7	0.629	87.0	0.910
Israel	5.1	0.775	17 589.2	0.496	36.4	0.190	474.7	0.672	3 029.2	0.103	3.4	0.930	3.4	0.580	66.3	0.498
Italy	1.6	0.625	19 996.2	0.564	26.8	0.130	463.0	0.655	2 932.4	0.099	1.1	0.287	3.3	0.564	81.0	0.791
Jamaica	0.5	0.579	2 851.4	0.078	43.6	0.234	190.4	0.269	1 596.9	0.052	..	..	0.3	0.052	70.8	0.588
Japan	1.3	0.616	34 691.1	0.981	10.5	0.030	558.8	0.791	4 069.8	0.140	2.8	0.765	3.1	0.531	83.3	0.837
Jordan	5.0	0.771	1 696.8	0.045	43.6	0.234	87.8	0.124	1 027.7	0.032	..	..	1.8	0.313	70.8	0.588
Kazakhstan	-4.1	0.382	1 173.0	0.030	43.5	0.234	109.9	0.155	2 374.2	0.079	0.3	0.085	2.9	0.503	72.0	0.612
Kenya	2.1	0.646	359.3	0.007	25.6	0.123	10.2	0.014	499.4	0.013	..	..	0.1	0.016	59.3	0.359
Republic of Korea	5.7	0.804	8 472.4	0.237	45.7	0.247	444.7	0.629	3 870.5	0.133	2.6	0.711	5.6	0.954	79.0	0.751
Kuwait	8.5	0.922	16 729.0	0.472	49.5	0.270	240.0	0.339	8 984.1	0.315	0.2	0.041	1.7	0.288	79.0	0.751
Kyrgyzstan	-4.1	0.384	289.2	0.005	40.8	0.217	77.3	0.109	503.8	0.013	0.3	0.063	1.1	0.180	..	..
Latvia	-3.4	0.411	2 724.0	0.074	47.0	0.255	301.6	0.427	1 585.9	0.051	0.4	0.110	2.3	0.388	71.3	0.598
Lebanon	6.0	0.816	4 778.8	0.133	10.4	0.029	196.6	0.278	1 280.4	0.041	..	..	2.6	0.442	58.5	0.343
Libyan Arab Jamahiriya	..	..	5 949.6	0.166	23.1	0.108	99.7	0.141	2 369.5	0.079	..	..	1.4	0.236	70.3	0.578
Lithuania	-3.1	0.427	2 947.8	0.081	44.0	0.237	311.1	0.440	2 138.2	0.071	0.7	0.187	2.3	0.384	71.8	0.608
Madagascar	2.0	0.645	243.6	0.004	24.7	0.117	3.2	0.004	..	..	0.2	0.044	0.2	0.026	63.8	0.448
Malawi	3.8	0.719	158.6	0.002	28.3	0.140	4.0	0.005	..	..	..	..	0.1	0.004	58.8	0.349
Malaysia	7.0	0.857	3 680.9	0.101	120.4	0.708	201.2	0.284	1 878.0	0.062	0.3	0.084	1.0	0.168	75.3	0.677
Mali	3.8	0.722	225.7	0.003	24.4	0.116	3.0	0.004	..	..	..	..	0.1	0.017	63.0	0.432

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Annex table A.II.1. Raw data and scores for the variables included in the UNCTAD Inward FDI Potential index, 1998-2000 (continued)

Economy	Real GDP growth (Average 1990-2000) %	Score 0-1	GDP per capita Dollars	Score 0-1	Total exports (Average 1998-2000) As % of GDP	Score 0-1	Telephone mainlines Per 1,000 inhabitants	Score 0-1	Commercial energy use 1999 Per capita	Score 0-1	R&D expenditures (Average 1997-1999) As % of GNI[a]	Score 0-1	Students in tertiary education (Latest year available) As % of total population	Score 0-1	Country risk (As of February 2001) Composite risk rating	Score 0-1
Malta	4.8	0.764	9 211.9	0.258	93.8	0.544	510.9	0.723	2 543.8	0.086	..	..	2.2	0.368	79.3	0.757
Mexico	3.1	0.690	5 026.5	0.140	31.1	0.157	113.5	0.160	1 543.0	0.050	0.3	0.086	1.7	0.289	74.0	0.651
Moldova, Republic of	-9.7	0.143	321.9	0.006	49.5	0.271	136.7	0.193	655.7	0.018	0.9	0.248	2.1	0.364	56.8	0.309
Mongolia	1.0	0.603	378.1	0.008	57.4	0.319	48.1	0.068	..	..	0.1	0.012	2.0	0.341	67.0	0.512
Morocco	2.3	0.658	1 187.5	0.031	24.4	0.116	51.1	0.072	351.7	0.008	..	..	1.2	0.194	70.3	0.578
Mozambique	6.4	0.830	215.9	0.003	13.2	0.046	4.1	0.005	403.8	0.009	..	..	0.0	0.001	58.8	0.349
Myanmar	..	..	270.3	0.005	12.7	0.043	5.4	0.007	273.4	0.005	..	..	0.6	0.091	58.8	0.349
Namibia	4.1	0.735	2 004.2	0.054	46.5	0.252	63.4	0.089	644.8	0.018	..	..	0.7	0.115	75.8	0.687
Nepal	4.9	0.768	227.7	0.003	23.3	0.109	10.8	0.015	357.9	0.008	..	..	0.5	0.076	..	..
Netherlands	2.8	0.678	24 511.8	0.693	60.3	0.337	605.3	0.857	4 686.4	0.162	2.0	0.541	3.0	0.513	89.3	0.956
New Zealand	3.0	0.686	14 320.4	0.403	32.7	0.167	496.0	0.702	4 769.7	0.165	1.1	0.304	4.5	0.773	78.3	0.737
Nicaragua	3.5	0.708	450.3	0.010	36.0	0.187	30.5	0.043	539.2	0.014	..	..	1.2	0.203	55.3	0.279
Niger	2.4	0.662	189.1	0.002	16.6	0.067	1.8	0.002	..	..	..	..	0.0	0.002	60.0	0.373
Nigeria	2.4	0.662	324.2	0.006	58.7	0.328	3.9	0.005	704.5	0.020	..	..	0.2	0.029	60.3	0.378
Norway	3.6	0.714	34 692.8	0.982	40.5	0.215	545.0	0.771	5 965.5	0.207	1.7	0.463	4.2	0.722	91.5	1.000
Oman	4.8	0.763	6 708.5	0.187	48.0	0.261	90.2	0.127	3 606.9	0.123	..	..	0.7	0.114	80.0	0.771
Pakistan	3.7	0.717	442.4	0.010	15.8	0.063	21.6	0.030	443.9	0.011	..	..	0.2	0.026	54.3	0.259
Panama	4.1	0.732	3 412.9	0.094	81.3	0.467	155.5	0.220	834.9	0.025	..	..	3.0	0.508	73.5	0.641
Papua New Guinea	4.0	0.730	796.1	0.020	48.7	0.266	12.9	0.018	..	..	..	..	0.3	0.047	66.3	0.498
Paraguay	2.2	0.653	1 486.5	0.039	23.8	0.112	47.6	0.067	772.6	0.023	..	..	0.8	0.138	64.3	0.458
Peru	4.7	0.757	2 140.2	0.058	14.7	0.056	63.6	0.090	519.3	0.014	..	..	2.7	0.460	68.5	0.542
Philippines	3.3	0.697	970.2	0.025	53.3	0.294	37.6	0.053	548.9	0.015	0.2	0.052	2.8	0.483	66.5	0.502
Poland	4.6	0.755	4 074.1	0.113	27.9	0.137	257.5	0.364	2 415.8	0.081	0.7	0.193	1.9	0.316	75.0	0.671
Portugal	2.7	0.673	11 148.1	0.313	28.9	0.143	421.9	0.597	2 365.3	0.079	0.6	0.159	3.2	0.553	80.0	0.771
Qatar	3.9	0.725	22 126.9	0.625	32.6	0.167	263.5	0.373	28 261.8	1.000	..	..	1.5	0.251	70.0	0.572
Romania	-0.7	0.528	1 686.4	0.045	28.8	0.143	167.2	0.236	1 622.2	0.053	0.8	0.212	1.8	0.309	64.3	0.458
Russian Federation	-4.8	0.353	1 657.0	0.044	39.6	0.210	209.0	0.295	4 121.1	0.142	1.0	0.274	3.0	0.515	66.0	0.492
Rwanda	-0.2	0.550	274.7	0.005	5.7	0.000	1.8	0.002	0.0	0.005	0.0	0.005	0.0	0.000	..	..
Saudi Arabia	1.5	0.622	7 525.7	0.211	41.9	0.224	124.6	0.176	4 203.7	0.145	..	..	1.4	0.237	76.8	0.707
Senegal	3.6	0.713	500.1	0.011	33.5	0.172	18.3	0.025	318.4	0.006	0.0	0.000	0.3	0.042	64.8	0.468
Sierra Leone	-4.3	0.373	155.9	0.001	18.2	0.078	3.8	0.005	..	..	..	..	0.1	0.013	41.3	0.000
Singapore	7.8	0.891	22 026.6	0.622	167.7	1.000	475.4	0.673	5 742.2	0.199	1.1	0.305	2.7	0.458	90.5	0.980
Slovakia	2.1	0.648	3 716.4	0.102	65.6	0.370	302.0	0.427	3 334.7	0.114	1.0	0.264	1.9	0.321	73.5	0.641
Slovenia	2.7	0.675	9 675.2	0.272	56.1	0.311	374.2	0.529	3 276.8	0.112	1.4	0.390	2.6	0.436	76.8	0.707
South Africa	2.0	0.643	3 036.2	0.083	26.9	0.131	120.5	0.170	2 596.6	0.087	0.7	0.198	1.6	0.269	68.5	0.542
Spain	2.5	0.665	14 635.0	0.412	27.9	0.138	414.9	0.587	3 005.4	0.102	0.8	0.224	4.3	0.728	80.5	0.781
Sri Lanka	5.3	0.783	849.1	0.021	36.9	0.193	34.9	0.049	405.8	0.009	0.2	0.047	0.3	0.054	58.5	0.343
Sudan	8.1	0.906	349.0	0.007	10.1	0.028	8.9	0.012	503.0	0.013	..	..	0.2	0.032	49.5	0.163
Suriname	3.3	0.699	2 231.3	0.060	48.6	0.265	165.4	0.234	..	..	..	..	0.7	0.110	67.5	0.522

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Annex table A.II.1. Raw data and scores for the variables included in the UNCTAD Inward FDI Potential index, 1998-2000 (concluded)

Economy	Real GDP growth (Average 1990-2000) %	Score 0-1	GDP per capita Dollars	Score 0-1	Total exports (Average 1998-2000) As % of GDP	Score 0-1	Telephone mainlines (Average 1998-2000) Per 1,000 inhabitants	Score 0-1	Commercial energy use 1999 Per capita	Score 0-1	R&D expenditures (Average 1997-1999) As % of GNI[a]	Score 0-1	Students in tertiary education (Latest year available) As a % of total population	Score 0-1	Country risk (As of February 2001) Composite risk rating	Score 0-1
Sweden	1.9	0.640	26 791.8	0.757	44.5	0.240	681.1	0.964	5 768.5	0.200	3.7	1.000	3.1	0.531	85.0	0.871
Switzerland	0.8	0.593	35 343.4	1.000	42.9	0.230	706.4	1.000	3 738.0	0.128	2.6	0.695	2.0	0.347	88.5	0.940
Syrian Arab Republic	5.8	0.808	1 015.5	0.026	115.7	0.679	99.1	0.140	1 142.9	0.036	0.2	0.049	1.4	0.243	70.5	0.582
Taiwan Province of China	6.4	0.832	13 033.3	0.367	50.2	0.275	545.7	0.772	3 771.8	0.129	2.0	0.536	4.9	0.841	81.8	0.807
Tajikistan	-10.4	0.112	186.6	0.002	98.1	0.570	35.7	0.050	543.2	0.014	..	..	1.8	0.309	..	..
Macedonia, TFYR	-0.8	0.523	1 784.1	0.048	43.0	0.231	236.1	0.334	..	..	0.4	0.102	1.5	0.261	..	..
Thailand	4.2	0.736	1 914.1	0.051	61.4	0.344	88.0	0.124	1 168.8	0.037	0.1	0.033	2.5	0.434	72.8	0.627
Togo	2.3	0.656	309.0	0.006	32.7	0.167	8.2	0.011	312.9	0.006	0.5	0.118	0.3	0.047	61.5	0.402
Trinidad and Tobago	3.0	0.687	5 213.1	0.145	47.1	0.256	217.5	0.308	6 205.4	0.216	0.1	0.033	0.5	0.075	73.5	0.641
Tunisia	4.7	0.757	2 146.7	0.058	43.1	0.231	80.4	0.113	811.5	0.024	0.3	0.077	1.3	0.222	74.5	0.661
Turkey	3.7	0.716	2 979.7	0.082	23.7	0.111	274.5	0.388	1 093.1	0.034	0.4	0.114	2.3	0.385	60.0	0.373
Uganda	7.0	0.859	285.6	0.005	10.8	0.031	2.7	0.003	..	..	0.7	0.186	0.2	0.024	65.8	0.488
Ukraine	-9.3	0.159	700.9	0.017	51.5	0.283	191.3	0.270	2 973.4	0.101	1.0	0.275	3.0	0.515	64.8	0.468
United Arab Emirates	2.8	0.678	18 519.7	0.523	69.1	0.391	395.6	0.560	9 976.9	0.350	..	..	0.7	0.116	81.5	0.801
United Kingdom	2.5	0.666	24 235.8	0.685	26.7	0.130	572.4	0.810	3 870.9	0.133	2.5	0.690	3.1	0.531	82.8	0.827
United Republic of Tanzania	2.9	0.684	253.6	0.004	13.9	0.051	4.4	0.006	456.6	0.011	..	..	0.1	0.004	59.8	0.369
United States	3.5	0.707	32 962.0	0.932	11.0	0.033	679.3	0.962	8 158.7	0.285	2.5	0.690	5.2	0.900	82.3	0.817
Uruguay	3.4	0.703	6 287.2	0.175	19.3	0.084	266.4	0.377	975.6	0.030	..	..	2.4	0.416	74.0	0.651
Uzbekistan	-0.5	0.536	369.1	0.007	42.6	0.228	65.6	0.092	2 023.9	0.067	..	..	2.7	0.469	..	..
Venezuela	1.6	0.626	4 488.9	0.124	23.6	0.111	108.9	0.154	2 252.8	0.075	0.3	0.089	2.4	0.412	69.3	0.558
Viet Nam	7.9	0.894	376.7	0.008	49.7	0.272	27.0	0.038	454.2	0.011	..	..	0.7	0.109	71.8	0.608
Yemen	5.8	0.808	415.7	0.009	29.3	0.146	16.6	0.023	184.1	0.002	..	..	0.4	0.064	64.3	0.458
Zambia	0.5	0.578	303.2	0.006	26.9	0.131	8.6	0.012	626.4	0.017	..	..	0.2	0.025	58.8	0.349
Zimbabwe	2.5	0.664	516.3	0.012	43.7	0.235	20.0	0.028	820.9	0.024	..	..	0.4	0.066	41.3	0.000

Source: UNCTAD, based on data from the World Bank and IMF (GDP per capita); UNCTAD, 2001a (real GDP growth, exports); World Bank, WDI online (real GDP growth, telephone mainlines, commercial energy use, R&D expenditures); UNCTAD, 2001 (students in the tertiary level, R&D expenditures); and the PRS Group/International country risk guide (country risk).

a   Gross national income.

Annex table A.II.2. Raw data and scores for the variables included in the UNCTAD Inward FDI potential index, 1988-1990

Economy	Real GDP growth (Average 1980-1989) %	Score 0-1	GDP per capita Dollars	Score 0-1	Total exports As % of GDP	Score 0-1	Telephone mainlines (Average 1988-1990) Per 1,000 inhabitants	Score 0-1	Commercial energy use Per capita	Score 0-1	R&D expenditures As % of GNI[a]	Score 0-1	Students in the tertiary level 1999 As % of total population	Score 0-1	Country risk (As of January 1991) Composite risk rating	Score 0-1
Albania	1.9	0.362	674.4	0.020	17.7	0.036	12.0	0.017	886.6	0.055	..	..	0.7	0.093	62.5	0.570
Algeria	3.1	0.445	2 300.2	0.076	19.7	0.042	30.8	0.045	928.1	0.058	..	..	1.1	0.163	61.5	0.556
Angola	3.7	0.492	983.8	0.030	35.3	0.084	7.5	0.010	668.8	0.039	..	..	0.1	0.006	50.5	0.393
Argentina	-0.2	0.210	3 581.7	0.120	11.0	0.018	96.4	0.142	1 426.8	0.096	0.4	0.122	3.1	0.447	56.0	0.474
Armenia	3.3	0.463	775.9	0.023	38.5	0.093	154.0	0.228	716.9	0.043	..	-0.004	1.9	0.268	59.0	0.519
Australia	3.6	0.481	17 140.8	0.585	16.1	0.032	442.3	0.657	4 994.5	0.360	1.4	0.448	2.9	0.414	79.5	0.822
Austria	2.0	0.370	17 907.4	0.611	39.3	0.095	406.7	0.604	3 259.6	0.232	1.3	0.443	2.7	0.385	86.5	0.926
Azerbaijan	3.3	0.463	1 166.2	0.037	27.2	0.062	83.4	0.123	2 154.3	0.150	0.4	0.113	2.3	0.329	59.0	0.519
Bahamas	3.5	0.473	11 837.0	0.403	60.3	0.152	252.0	0.374	..	..	..	-0.004	2.1	0.299	71.0	0.696
Bahrain	1.6	0.339	8 290.8	0.281	103.2	0.269	186.0	0.276	9 542.6	0.698	..	-0.004	1.4	0.200	60.0	0.533
Bangladesh	4.1	0.519	253.2	0.005	5.8	0.004	1.9	0.002	140.9	0.000	0.0	0.004	0.4	0.054	37.0	0.193
Belarus	3.3	0.463	3 300.4	0.110	54.3	0.136	143.3	0.212	3 155.6	0.224	1.1	0.358	3.3	0.472	59.0	0.519
Belgium and Luxembourg	2.1	0.377	17 393.9	0.594	71.8	0.183	419.5	0.623	6 911.7	0.503	1.7	0.555	2.7	0.385	85.5	0.911
Benin	2.7	0.419	367.0	0.009	19.3	0.041	3.1	0.003	360.5	0.016	..	-0.004	0.2	0.030	..	..
Bolivia	-0.8	0.172	735.6	0.022	21.3	0.046	26.5	0.038	427.3	0.021	0.5	0.162	2.0	0.281	57.0	0.489
Botswana	10.8	1.000	2 290.0	0.075	69.6	0.177	17.9	0.025	..	..	..	-0.004	0.4	0.057	74.5	0.748
Brazil	3.1	0.450	2 707.2	0.090	9.5	0.014	61.9	0.091	925.4	0.058	0.8	0.272	1.0	0.147	61.0	0.548
Brunei Darussalam	-1.0	0.155	12 348.6	0.421	..	..	123.3	0.182	6 405.0	0.465	..	-0.004	0.5	0.074	85.5	0.911
Bulgaria	4.1	0.516	2 485.7	0.082	40.9	0.099	224.7	0.333	3 379.3	0.241	1.3	0.412	2.2	0.311	52.0	0.415
Burkina Faso	3.9	0.505	295.4	0.007	11.0	0.018	1.6	0.001	..	..	0.1	0.027	0.1	0.004	51.0	0.400
Cameroon	4.2	0.528	1 032.9	0.032	19.8	0.042	3.4	0.004	442.8	0.022	..	..	0.3	0.038	56.5	0.481
Canada	3.4	0.467	19 701.1	0.673	25.6	0.058	545.0	0.810	7 789.1	0.568	1.4	0.473	6.9	1.000	84.5	0.896
Chile	2.8	0.423	2 120.3	0.069	35.0	0.083	54.8	0.080	1 018.3	0.065	0.8	0.262	2.0	0.287	67.5	0.644
China	10.8	1.000	355.8	0.009	12.5	0.022	5.0	0.006	749.5	0.045	0.7	0.220	0.3	0.044	59.5	0.526
Colombia	3.5	0.475	1 157.1	0.036	18.3	0.038	69.9	0.103	704.3	0.042	..	..	1.4	0.199	64.5	0.600
Congo	3.7	0.494	1 135.6	0.036	46.5	0.114	7.1	0.009	638.0	0.037	..	..	0.5	0.066	54.0	0.444
Congo, Dem. Rep.	2.1	0.378	254.1	0.005	26.3	0.060	0.8	0.000	318.0	0.013	..	..	0.2	0.027	37.0	0.193
Costa Rica	2.8	0.425	1 747.8	0.057	34.4	0.082	94.7	0.140	658.9	0.038	0.2	0.058	2.4	0.352	66.5	0.630
Cote d'Ivoire	0.7	0.274	842.7	0.026	27.3	0.063	6.1	0.008	..	..	..	..	0.3	0.033	57.5	0.496
Croatia	0.5	0.259	2 401.0	0.079	72.6	0.185	165.3	0.245	1 446.5	0.097	1.0	0.319	1.6	0.229	46.5	0.333
Cyprus	6.1	0.664	7 136.1	0.242	50.4	0.125	398.0	0.591	2 187.5	0.152	0.2	0.055	1.0	0.136	70.0	0.681
Czech Republic	2.2	0.384	2 917.7	0.097	50.9	0.127	151.3	0.224	4 744.6	0.342	1.8	0.586	1.1	0.163	69.5	0.674
Denmark	2.5	0.409	22 893.7	0.783	34.7	0.083	555.3	0.825	3 612.3	0.258	1.6	0.535	2.8	0.401	81.0	0.844
Dominican Republic	3.0	0.442	917.8	0.028	31.9	0.075	40.3	0.059	578.4	0.032	..	..	1.9	0.278	52.5	0.422
Ecuador	1.9	0.360	1 014.3	0.031	30.2	0.070	44.0	0.064	623.1	0.036	..	..	2.0	0.289	59.0	0.519
Egypt	5.5	0.616	713.8	0.021	37.6	0.090	26.7	0.039	608.3	0.035	0.2	0.064	1.1	0.158	48.0	0.356
El Salvador	0.3	0.251	919.9	0.028	19.6	0.041	22.9	0.033	495.3	0.026	..	..	1.5	0.219	43.5	0.289
Estonia	3.3	0.463	1 073.4	0.033	94.6	0.245	197.7	0.293	3 550.9	0.253	0.6	0.211	1.6	0.236	59.0	0.519
Ethiopia	2.9	0.431	163.3	0.002	8.4	0.011	2.5	0.002	296.9	0.012	..	..	0.1	0.006	33.0	0.133

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Annex table A.II.2. Raw data and scores for the variables included in the UNCTAD Inward FDI potential index, 1988-1990 (continued)

Economy	Real GDP growth (Average 1980-1989)		GDP per capita		Total exports		Telephone mainlines (Average 1988-1990)		Commercial energy use		R&D expenditures		Students in the tertiary level 1999		Country risk (As of January 1991)	
	%	Score 0-1	Dollars	Score 0-1	As % of GDP	Score 0-1	Per 1,000 inhabitants	Score 0-1	Per capita	Score 0-1	As % of GNI[a]	Score 0-1	As % of total population	Score 0-1	Composite risk rating	Score 0-1
Finland	3.4	0.467	24 053.2	0.822	23.6	0.052	517.3	0.769	5 804.7	0.421	1.9	0.625	3.3	0.480	80.5	0.837
France	2.2	0.381	18 772.0	0.641	21.3	0.046	477.7	0.710	3 903.3	0.279	2.4	0.778	3.0	0.432	79.0	0.815
Gabon	0.5	0.260	4 915.5	0.165	44.3	0.109	20.0	0.028	1 522.8	0.103	..	..	0.4	0.058	64.0	0.593
Gambia	3.5	0.476	324.3	0.008	55.3	0.139	6.4	0.008	..	..	..	..	0.2	0.021	60.5	0.541
Georgia	3.3	0.463	1 559.3	0.050	12.7	0.023	93.9	0.139	931.2	0.059	..	..	2.7	0.391	59.0	0.519
Germany	2.2	0.380	18 131.8	0.619	28.0	0.064	431.3	0.641	4 582.8	0.330	2.5	0.826	2.6	0.372	86.5	0.926
Ghana	2.6	0.415	369.2	0.009	19.2	0.040	2.9	0.003	353.2	0.016	..	..	0.1	0.005	57.0	0.489
Greece	1.8	0.353	7 072.7	0.239	17.8	0.037	374.7	0.556	2 115.1	0.147	0.3	0.110	2.8	0.400	62.0	0.563
Guatemala	0.4	0.254	934.1	0.029	17.7	0.036	18.5	0.026	488.8	0.026	0.2	0.049	0.8	0.113	47.5	0.348
Guinea	1.6	0.340	427.1	0.011	27.3	0.062	1.9	0.002	..	..	..	..	0.1	0.009	47.5	0.348
Guyana	-3.2	0.000	540.0	0.015	56.3	0.141	20.1	0.029	..	..	..	..	0.6	0.081	50.5	0.393
Haiti	-0.3	0.205	362.0	0.009	19.7	0.042	6.6	0.009	251.6	0.008	..	..	0.1	0.011	35.5	0.170
Honduras	2.7	0.418	909.2	0.028	31.5	0.074	15.6	0.022	501.3	0.027	..	..	0.9	0.124	50.5	0.393
Hong Kong, China	7.1	0.734	11 810.8	0.402	133.4	0.351	427.0	0.634	1 890.5	0.130	..	..	1.5	0.213	66.0	0.622
Hungary	1.6	0.343	2 909.3	0.096	34.7	0.082	88.7	0.131	2 859.7	0.202	2.0	0.666	1.0	0.140	60.0	0.533
Iceland	3.2	0.456	23 384.2	0.799	33.4	0.079	499.7	0.742	8 002.3	0.584	1.1	0.363	2.1	0.294	78.5	0.807
India	5.7	0.630	374.0	0.009	6.8	0.007	5.5	0.007	418.5	0.021	0.8	0.272	0.6	0.080	44.0	0.296
Indonesia	5.8	0.642	565.3	0.016	25.5	0.057	5.2	0.006	519.7	0.028	0.2	0.059	1.0	0.137	69.5	0.674
Iran, Islamic Rep.	0.5	0.265	1 647.8	0.053	54.6	0.137	37.8	0.055	1 279.4	0.085	0.5	0.155	0.6	0.076	51.5	0.407
Ireland	2.8	0.425	11 473.8	0.380	60.2	0.152	260.0	0.386	2 817.7	0.199	0.9	0.310	2.6	0.371	77.5	0.793
Israel	3.4	0.469	10 652.1	0.362	35.5	0.085	334.3	0.496	2 589.3	0.182	2.2	0.724	2.9	0.417	49.0	0.370
Italy	2.4	0.396	16 553.4	0.565	19.4	0.041	369.3	0.548	2 658.0	0.187	1.3	0.418	2.5	0.367	76.5	0.778
Jamaica	1.5	0.337	1 714.3	0.055	47.8	0.118	39.5	0.058	1 045.0	0.067	..	..	0.7	0.094	62.5	0.570
Japan	3.8	0.498	24 372.6	0.833	10.2	0.016	426.0	0.633	3 405.0	0.242	2.9	0.971	2.3	0.337	86.5	0.926
Jordan	3.3	0.466	1 528.7	0.049	54.8	0.137	56.7	0.083	1 069.4	0.069	0.3	0.082	1.7	0.249	44.0	0.296
Kazakhstan	3.3	0.463	1 976.8	0.064	47.1	0.116	74.1	0.109	4 276.2	0.307	0.3	0.110	3.2	0.463	59.0	0.519
Kenya	4.1	0.516	371.5	0.009	23.7	0.053	7.4	0.010	539.6	0.030	..	-0.004	0.1	0.015	50.0	0.385
Republic of Korea	8.9	0.863	5 127.6	0.173	33.0	0.078	277.7	0.412	1 925.2	0.133	1.9	0.626	3.9	0.570	74.0	0.741
Kuwait	1.1	0.307	10 024.1	0.341	48.2	0.119	235.7	0.350	6 772.4	0.493	0.2	0.073	1.0	0.140	24.5	0.007
Kyrgyzstan	3.3	0.463	304.2	0.007	32.0	0.075	67.2	0.099	882.2	0.055	0.3	0.083	1.3	0.186	59.0	0.519
Latvia	3.3	0.463	408.0	0.011	372.5	1.000	226.7	0.336	1 992.0	0.137	0.5	0.156	1.7	0.245	59.0	0.519
Lebanon	..	..	1 103.2	0.034	16.5	0.033	117.7	0.174	646.8	0.038	..	..	3.3	0.483	29.5	0.081
Libyan Arab Jamahiriya	-2.4	0.055	6 119.5	0.207	31.3	0.073	48.2	0.071	2 568.2	0.180	..	..	1.7	0.236	54.5	0.452
Lithuania	3.3	0.463	529.4	0.015	231.9	0.618	199.3	0.295	2 544.0	0.178	0.7	0.228	2.4	0.341	59.0	0.519
Madagascar	0.8	0.282	229.5	0.004	17.1	0.035	2.2	0.002	..	..	0.2	0.055	0.3	0.041	53.0	0.430
Malawi	2.4	0.400	173.0	0.003	22.6	0.050	3.0	0.003	..	..	..	..	0.1	0.003	54.0	0.444
Malaysia	4.9	0.574	2 259.2	0.074	70.8	0.180	80.9	0.119	1 164.9	0.076	0.3	0.105	0.7	0.095	77.5	0.793
Mali	2.6	0.416	251.7	0.005	16.5	0.033	1.1	0.000	..	..	..	..	0.1	0.004	46.5	0.333

Annex table A.II.2. Raw data and scores for the variables included in the UNCTAD Inward FDI potential index, 1988-1990 (continued)

Economy	Real GDP growth (Average 1980-1989)		GDP per capita		Total exports		Telephone mainlines (Average 1988-1990)		Commercial energy use		R&D expenditures		Students in the tertiary level 1999		Country risk (As of January 1991)	
	%	Score 0-1	Dollars	Score 0-1	As % of GDP	Score 0-1	Per 1,000 inhabitants	Score 0-1	Per capita	Score 0-1	As % of GNI[a]	Score 0-1	As % of total population	Score 0-1	Composite risk rating	Score 0-1
Malta	3.2	0.453	5 662.7	0.191	81.8	0.211	346.7	0.515	2 165.3	0.150	..	..	0.9	0.124	66.0	0.622
Mexico	0.8	0.283	2 724.5	0.090	19.2	0.040	58.4	0.086	1 470.3	0.099	0.2	0.069	1.6	0.225	69.5	0.674
Moldova, Republic of	3.3	0.463	1 130.1	0.035	130.4	0.342	98.7	0.146	1 342.7	0.089	1.0	0.339	2.4	0.345	59.0	0.519
Mongolia	6.2	0.672	1 428.5	0.046	24.2	0.054	28.9	0.042	..	..	..	..	1.4	0.202	58.5	0.511
Morocco	4.2	0.528	979.3	0.030	22.0	0.048	14.2	0.020	273.0	0.010	..	..	1.1	0.151	55.0	0.459
Mozambique	-0.9	0.162	171.3	0.002	8.9	0.013	3.0	0.003	523.6	0.028	..	..	0.0	0.000	42.0	0.267
Myanmar	0.9	0.288	206.7	0.004	5.0	0.002	1.6	0.001	272.2	0.010	..	..	0.5	0.066	30.5	0.096
Namibia	0.9	0.292	1 615.8	0.052	57.1	0.143	38.6	0.056	..	..	..	..	0.3	0.041	51.0	0.400
Nepal	4.6	0.553	190.0	0.003	11.0	0.018	2.6	0.003	323.4	0.014	..	..	0.5	0.068	..	..
Netherlands	2.1	0.377	16 678.5	0.569	54.0	0.135	451.0	0.670	4 413.9	0.317	2.1	0.704	3.2	0.462	86.5	0.926
New Zealand	2.0	0.367	13 125.9	0.447	26.5	0.060	431.0	0.640	3 955.9	0.283	1.0	0.337	3.3	0.479	79.0	0.815
Nicaragua	-1.7	0.106	1 141.4	0.036	25.3	0.057	12.8	0.018	554.1	0.031	..	..	0.8	0.113	41.0	0.252
Niger	-0.4	0.200	309.8	0.007	20.4	0.044	1.2	0.000	..	..	..	..	0.1	0.004	48.0	0.356
Nigeria	0.8	0.282	299.7	0.007	47.2	0.117	2.7	0.003	739.3	0.044	..	..	0.4	0.052	53.5	0.437
Norway	3.0	0.438	24 662.9	0.843	37.5	0.090	490.7	0.729	5 032.0	0.363	1.7	0.574	3.4	0.485	88.5	0.956
Oman	9.1	0.875	5 717.2	0.193	43.6	0.107	55.0	0.081	2 097.2	0.145	..	..	0.3	0.046	71.0	0.696
Pakistan	6.4	0.686	358.0	0.009	14.3	0.027	6.9	0.009	393.6	0.019	..	..	0.2	0.023	38.5	0.215
Panama	2.1	0.377	2 136.9	0.070	80.3	0.206	88.0	0.130	616.1	0.035	..	..	2.2	0.319	53.5	0.437
Papua New Guinea	2.2	0.384	947.8	0.029	41.5	0.101	8.4	0.011	..	..	..	..	0.1	0.017	52.0	0.415
Paraguay	2.2	0.383	1 278.0	0.040	34.5	0.082	25.2	0.036	753.4	0.045	..	..	0.8	0.109	63.0	0.578
Peru	0.4	0.252	1 234.5	0.039	19.7	0.042	24.9	0.036	545.0	0.030	..	..	3.1	0.454	48.5	0.363
Philippines	0.5	0.262	696.8	0.020	28.0	0.064	9.9	0.013	458.0	0.024	0.2	0.069	2.8	0.406	41.0	0.252
Poland	2.2	0.387	1 844.1	0.060	23.5	0.052	82.2	0.121	3 073.7	0.218	1.4	0.456	1.4	0.204	61.0	0.548
Portugal	2.8	0.427	5 762.7	0.194	27.9	0.064	218.7	0.324	1 558.8	0.105	0.5	0.162	1.9	0.270	75.0	0.756
Qatar	3.5	0.476	15 141.8	0.516	44.4	0.109	193.0	0.286	13 605.0	1.000	..	..	1.3	0.190	63.0	0.578
Romania	1.3	0.318	2 186.4	0.072	21.0	0.045	100.3	0.148	2 881.4	0.204	0.8	0.258	0.8	0.117	54.0	0.444
Russian Federation	3.3	0.463	3 507.2	0.117	29.0	0.067	131.3	0.194	4 872.5	0.351	0.8	0.273	3.4	0.496	59.0	0.519
Rwanda	2.5	0.402	357.8	0.009	7.8	0.010	1.4	0.001	..	..	0.0	0.009	0.0	0.003	..	..
Saudi Arabia	-0.7	0.180	5 906.6	0.199	40.1	0.097	74.5	0.110	4 294.6	0.308	..	..	1.0	0.135	59.5	0.526
Senegal	3.2	0.452	714.6	0.021	25.0	0.056	5.0	0.006	305.6	0.012	0.0	0.002	0.3	0.033	56.5	0.481
Sierra Leone	0.0	0.230	282.0	0.006	19.6	0.041	3.2	0.003	..	..	..	..	0.1	0.013	45.0	0.311
Singapore	6.3	0.678	10 343.4	0.352	187.0	0.496	340.0	0.505	3 743.2	0.268	0.9	0.308	1.8	0.264	84.0	0.889
Slovakia	2.2	0.384	2 405.7	0.079	60.0	0.151	128.0	0.189	4 164.1	0.299	1.0	0.345	1.3	0.179	69.5	0.674
Slovenia	0.5	0.259	7 341.4	0.249	68.5	0.174	229.3	0.340	2 633.1	0.185	1.6	0.533	1.8	0.251	46.5	0.333
South Africa	1.4	0.323	2 803.3	0.093	26.4	0.060	83.2	0.123	2 728.1	0.192	0.8	0.252	1.3	0.184	60.0	0.533
Spain	2.8	0.428	10 357.7	0.352	18.0	0.037	298.0	0.442	2 242.3	0.156	0.8	0.256	3.1	0.448	71.5	0.704
Sri Lanka	4.0	0.514	437.0	0.012	27.8	0.064	6.5	0.008	325.7	0.014	..	..	0.3	0.043	43.5	0.289
Sudan	0.4	0.255	603.1	0.017	4.3	0.000	2.5	0.002	435.9	0.022	..	..	0.2	0.032	24.0	0.000
Suriname	-1.1	0.148	3 761.7	0.126	32.0	0.075	86.4	0.127	..	..	..	..	1.1	0.152	49.0	0.370

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Annex table A.II.2. Raw data and scores for the variables included in the UNCTAD Inward FDI potential index, 1988-1990 (concluded)

Economy	Real GDP growth (Average 1980-1989) %	Score 0-1	GDP per capita Dollars	Score 0-1	Total exports As % of GDP	Score 0-1	Telephone mainlines (Average 1988-1990) Per 1,000 inhabitants	Score 0-1	Commercial energy use Per capita	Score 0-1	R&D expenditures As % of GNI[a]	Score 0-1	Students in the tertiary level 1999 As % of total population	Score 0-1	Country risk (As of January 1991) Composite risk rating	Score 0-1
Sweden	2.3	0.389	23 611.0	0.807	31.4	0.074	672.7	1.000	5 714.4	0.414	3.0	1.000	2.3	0.323	82.0	0.859
Switzerland	1.8	0.357	29 226.1	1.000	36.6	0.088	559.3	0.831	3 617.3	0.258	2.8	0.927	2.0	0.289	91.5	1.000
Syrian Arab Republic	1.4	0.325	1 637.2	0.053	25.1	0.056	40.9	0.060	942.3	0.060	..	..	1.8	0.256	50.0	0.385
Taiwan Province of China	8.5	0.835	7 200.0	0.244	49.7	0.123	288.3	0.428	2 675.9	0.188	1.4	0.471	2.8	0.407	81.5	0.852
Tajikistan	3.3	0.463	754.0	0.022	..	..	44.4	0.065	1 112.4	0.072	..	..	2.1	0.297	59.0	0.519
Macedonia, TFYR	0.5	0.259	1 112.5	0.035	51.6	0.128	141.0	0.209	..	..	..	..	1.4	0.198	46.5	0.333
Thailand	7.0	0.728	1 353.6	0.043	34.0	0.081	21.2	0.030	706.2	0.042	0.2	0.051	1.7	0.245	68.5	0.659
Togo	1.5	0.334	431.3	0.011	39.0	0.094	2.8	0.003	..	..	0.8	0.258	0.3	0.033	53.0	0.430
Trinidad and Tobago	-0.7	0.176	3 826.9	0.128	43.1	0.105	137.7	0.204	4 659.0	0.336	..	..	0.6	0.083	61.5	0.556
Tunisia	3.2	0.458	1 354.3	0.043	43.7	0.107	35.0	0.051	664.7	0.039	0.3	0.098	0.8	0.118	59.0	0.519
Turkey	5.3	0.603	2 071.1	0.068	16.4	0.033	106.5	0.157	898.0	0.056	0.5	0.146	1.3	0.190	43.0	0.281
Uganda	2.6	0.413	322.7	0.008	6.9	0.007	1.6	0.001	..	..	0.6	0.200	0.1	0.011	35.0	0.163
Ukraine	3.3	0.463	1 695.9	0.055	25.9	0.059	129.0	0.191	3 701.8	0.264	..	..	3.2	0.459	59.0	0.519
United Arab Emirates	-2.9	0.021	14 556.7	0.496	59.9	0.151	187.0	0.277	9 712.8	0.711	..	..	0.5	0.073	60.5	0.541
United Kingdom	3.3	0.462	15 466.7	0.528	23.5	0.052	429.3	0.638	3 697.0	0.264	2.2	0.720	2.2	0.314	81.0	0.844
United Republic of Tanzania	2.4	0.398	182.8	0.003	11.2	0.019	2.8	0.003	496.2	0.026	..	..	0.0	0.000	50.5	0.393
United States	3.6	0.486	21 664.9	0.740	9.2	0.013	532.0	0.791	7 857.1	0.573	2.8	0.919	5.4	0.781	84.0	0.889
Uruguay	0.9	0.288	2 806.4	0.093	23.0	0.051	123.0	0.182	761.8	0.046	..	..	2.3	0.331	67.0	0.637
Uzbekistan	3.3	0.463	1 057.3	0.033	34.3	0.081	65.6	0.096	2 083.3	0.144	..	..	2.9	0.423	59.0	0.519
Venezuela	0.7	0.279	2 667.1	0.088	31.3	0.073	79.6	0.117	2 132.2	0.148	0.4	0.129	2.8	0.406	73.0	0.726
Viet Nam	4.9	0.576	99.8	0.000	21.8	0.047	1.3	0.001	373.1	0.017	..	..	0.2	0.024	42.5	0.274
Yemen	..	..	533.5	0.015	20.3	0.043	9.2	0.012	241.5	0.007	..	..	0.5	0.062	51.0	0.400
Zambia	1.0	0.296	485.1	0.013	32.8	0.077	8.6	0.012	700.5	0.042	..	..	0.2	0.027	45.0	0.311
Zimbabwe	3.3	0.463	833.3	0.025	23.3	0.052	12.5	0.017	937.6	0.059	..	..	0.5	0.069	49.5	0.378

Source: UNCTAD, based on data from the World Bank and IMF (GDP per capita); UNCTAD, 2001a (real GDP growth, exports); World Bank, World Development Indicators 2001 (telephone mainlines, commercial energy use, R&D expenditures); UNESCO, 1999 (students in the tertiary level); and the PRS Group/International country risk guide (country risk).

Notes: For Qatar and Viet Nam, real GDP growth refers to the period 1985-1990. For the Czech Republic and Slovakia, real GDP growth and the country composite risk rating refer to that of the former Czechoslovakia. For the countries of the former Yugoslavia (Croatia, Slovenia, the former Yugoslav Republic of Macedonia) and the former USSR (Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Republic of Moldova, Russian Federation, Tajikistan, Ukraine, Uzbekistan), the real GDP growth rates and country composite risk ratings for Yugoslavia (former) and USSR (former) were used respectively. Data for GDP per capita refer to the period 1990-1992 for the following countries : Armenia, Azerbaijan, Belarus, Croatia, Czech Republic, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Republic of Moldova, Russian Federation, Slovakia, Slovenia, Tajikistan, the former Yugoslav Republic of Macedonia, Ukraine and Uzbekistan. Data for exports as a share in GDP refer to periods other than 1988-1990 as follows: 1990-1992 for Armenia, Czech Republic, Latvia, Lithuania, Russian Federation and Ukraine; 1991-1993 for Belarus, Croatia, Republic of Moldova, Slovenia and Uzbekistan; 1992-1994 for Estonia and Kazakhstan; 1993-1995 for Kyrgyzstan and Slovakia; 1994-1996 for Azerbaijan and the former Yugoslav Republic of Macedonia. Data for telephone mainlines per 1,000 inhabitants for Slovenia refer to the period 1990-1992. Data for commercial energy use per capita refer to the period 1992-1994 for the following countries: Armenia, Azerbaijan, Belarus, Croatia, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Republic of Moldova, Russian Federation, Slovenia, Tajikistan, Ukraine and Uzbekistan. Data for R&D expenditures as a percentage of GNI refer to the period 1988-1990 or close to this period; for students in tertiary education as a % of total population, data refer to 1990 or earliest year available close to 1990.

a   Gross national income.

Annex table A.III.1. The largest 30 cross-border M&A sales in LDCs, 1987-2001

Rank	Acquired company	Industry	Host economy	Acquiring company	Home economy	Value ($ million)	Year
1	Geita Mine(Ashanti Goldfields) [a]	Gold ores	United Rep. of Tanzania	Anglogold Ltd (Anglo American)	United Kingdom [b]	270.0	2000
2	Texaco Inc-Yetagun Natural [c]	Oil and gas field exploration services	Myanmar	Premier Oil PLC	United Kingdom	259.9	1997
3	Houay Ho Power Co [d]	Electric services	Lao People's Democratic Rep.	Investor Group	Belgium	140.0	2001
4	Randgold Resources(Morila)Ltd [e]	Gold ores	Mali	Anglogold Ltd(Anglo American)	United Kingdom [b]	132.0	2000
5	Tanzania Telecommunication Co [f]	Telecommunications	United Republic of Tanzania	Investor Group	Germany	120.0	2000
7	Sonatel (Senegal)	Telecommunications	Senegal	France Cables et Radio	France	107.4	1997
8	Houay Ho Power Co-Receivables [g]	Electric services	Lao People's Democratic Rep.	Tractebel SA	Belgium [h]	98.7	2001
9	Evander Gold Mines Ltd	Mining	Zambia	Harmony Gold Mining Co Ltd	South Africa	96.4	1998
10	ZCCM-Konkola,Nkana,Nchanga,Nam	Copper ores	Zambia	Investor Group	Bermuda	90.0	2000
11	UNIBRA-Zaire Breweries(5) and [i]	Malt beverages	Democratic Republic of the Congo	Societe d'Investissement	France	89.1	1996
12	Electra	Electric, gas, and water distribution	Cape Verde	Investor Group	Portugal	83.0	1999
13	Société Nationale d'Electricité [f]	Electric, gas, and water distribution	Senegal	Investor Group	France	66.0	1999
14	Zambia Oxygen (Zambia) [f]	Business services	Zambia	African Oxygen Ltd	South Africa	60.0	1997
15	Cia Agricole et Industrielle [d]	Insurance	Madagascar	Investor Group	Brunei	58.4	1996
16	BHP Minerals Mali Inc (Broken) [j]	Mining	Malawi	Randgold & Exploration Co Ltd	United States [b]	53.0	1996
17	Cyprus Amax Kansanshi Holdings [c]	Gold ores	Zambia	First Quantum Minerals Ltd	Canada	52.5	2001
18	Sotelgui (Guinea) [f]	Telecommunications	Guinea	Telekom Malaysia Bhd	Malaysia	50.0	1996
18	Zambia-Chambishi Cobalt [f]	Mining	Zambia	Anglovaal Ltd	South Africa	50.0	1998
18	Zambia Consolidated-Elec [f]	Electronic and electrical equipment	Zambia	Copperbelt Energy Consortium	United Kingdom	50.0	1997
21	La Source Group-Kasese Cobalt	Investment & commodity firms, dealers	Uganda	Banff Resources	Canada	48.9	1996
22	Mauritel [f]	Telecommunications	Mauritania	Morocco Telecom	Morocco	48.0	2001
23	ZCCM-Nkana,Mufulira Mines [f]	Copper ores	Zambia	Glencore International AG	Switzerland [k]	43.0	2000
24	United Meridian Corp-Block B [c]	Oil and gas; petroleum refining	Guinea	Mobil Corp	United States	38.9	1995
25	National Tobacco of Ethiopia	Tobacco products	Ethiopia	Shaher Group	Yemen	36.0	1999
26	Sierra Rutile Ltd [c]	Kaolin and ball clay	Sierra Leone	Consolidated Rutile(Cudgen RZ)	Australia	34.0	1993
27	Barge-Mounted Power Plant	Wholesale trade-durable goods	Bangladesh	Coastal Power Co (Coastal Corp)	United States	33.0	1998
28	Uganda Telecom. Ltd (UTL) [f]	Communications services, nec	Uganda	Investor Group	Germany	32.0	2000
29	Houay Ho Power Co [g]	Electric services	Lao People's Democratic Rep.	Belgelectric Finance BV	Netherlands [l]	30.0	2001
30	Nile Breweries	Food and kindred products	Uganda	South African Breweries Ltd	United Kingdom	29.0	1997

Source: UNCTAD, UNCTAD's cross-border M&A database.

a   The ultimate parent company is based in Ghana.
b   Immediate economy is South Africa.
c   The ultimate parent company is based in the United States.
d   The ultimate parent company is based in France.
e   The ultimate parent company is based in South Africa.
f   Privatization.
g   The ultimate parent company is based in Thailand.
h   Immediate economy is Belgium.
i   The ultimate parent company is based in Belgium.
j   The ultimate parent company is based in Australia.
k   Immediate economy is Switzerland.
l   Immediate economy is the Netherlands.
Note: Includes only the affiliates whose sales or employment is known. Therefore, it is likely that other large foreign affiliates are missing from this list.

Annex table A.III.2. The largest 30 foreign affiliates in LDCs, 2001

Rank	Name of foreign affiliate	Host economy	Home economy	Industry	Sales ($ million)	Employment	Year of establishment
1	Colgate Palmolive Mocambique L D A	Mozambique	United States	Soap and other detergents	9 118.2	95	..
2	Dunlop Zambia Limited	Zambia	United Kingdom	Tires and inner tubes	8 770.7	448	1964
3	Brasseries Et Limonaderies Du Rwanda S A	Rwanda	Netherlands/UK	Malt beverages	6 063.1	1 000	..
4	Shell Exploration And Development Madagascar B V	Madagascar	Netherlands	Oil & gas exploration	4 286.1	66	..
5	Shorncliffe (Solomon Islands) Ltd	Solomon Islands	United Kingdom		1 363.2	..	..
6	Boral Gas Solomons Ltd	Solomon Islands	Australia	Gas exporation	1 297.8	..	..
7	Osel Odebrecht Servicos No Exterior Ltda	Angola	Brazil	Nonresidential construction	785.3	4 000	..
8	Ashanti Goldfields (T) Ltd	United Rep. of Tanzania	Ghana	Gold ores	284.1	20	..
9	Credit Lyonnais Senegal	Senegal	France	Other commercial banks	110.9	..	..
10	Myanmar Toyota Tsusho Co., Ltd.	Myanmar	Japan	Trading	84.6 a	9	1995
11	Société Ouest Africaine Des Ciments SA	Senegal	France	Crushed and broken limestone	72.6	301	..
12	Nile Breweries Ltd	Uganda	United Kingdom	Malt beverages	72.0	634	..
13	La Compagnie Minière d'Akouta	Niger	Japan	Mining	71.8 b	1 200	1978
14	Travel Industry Services Ltd	Solomon Islands	Fiji	Transport	63.8	..	..
15	Solomon Kitano Mendana Hotel Ltd.	Solomon Islands	Japan	Hotel and motels	54.6 c	107	1989
16	Tanzania Cigarette Co Ltd.	United Rep. of Tanzania	Switzerland	Cigarettes	54.4	770	..
17	Compagnie Shell De Guinee	Guinea	Netherlands/UK	Petroleum products except bulk terminals	50.0	33	..
18	Manufacture de Tabacs de l'Ouest Africaine	Senegal	France	Tobacco	48.8	410	..
19	Société Des Ciments Du Togo SA	Togo	Germany	Ready mixed concreat	48.7	240	..
20	Gas Diana Transport Inc.	Liberia	Japan	See freight transport	48.6 c	..	1976
21	Brasseries Et Limonaderies Du Burundi Sarl	Burundi	Netherlands	Bottled & canned soft drinks	46.2	1 350	1997
22	John Walkden And Cie	Benin	United Kingdom	Piece goods	39.2	74	..
23	The General Electric Co Of Bangladesh Ltd	Bangladesh	United Kingdom	Motors and generators	37.7	1 200	1962
24	Yazaki EDS Samoa Ltd.	Samoa	Japan	Motor vehicle parts	31.8 d	1 831	1995
25	Nestle Senegal S A	Senegal	Switzerland	Fluid milk	27.2	230	..
26	Togo Et Shell S A	Togo	Netherlands/UK	Petroleum products except bulk terminals	25.2	96	..
26	Total Texaco Niger S A	Niger	France	Petroleum products except bulk terminals	25.2	45	..
28	Spie Batignolles Ltd	Lesotho	France	Engineering services	21.9	1 400	1987
29	Cica Burkina	Burkina Faso	France		21.0	150	1991
30	Dia Maritime Inc.	Liberia	Japan	Cars and other motor vehicles	20.8 c	..	1989

Source: UNCTAD, on the basis of the country table on largest foreign affiliates and UNCTAD FDI/TNC database.

a Data refer to March 1999.
b Data refer to 1998.
c Data refer to 1999.

Note: Includes only the affiliates whose sales or employment is known. Therefore, it is likely that other large foreign affiliates are missing from this list.

Annex table A.V.1. Toyota's international production system, 2001
(Number)

Region/economy	Affiliate (Year of establishment)	Vehicles assembled	Production	Exports
North America	**(Sales: 1 893 600[a])**		**1 088 463**	**156 045**
Canada	Toyota Motor Manufacturing Canada Inc. *TMMC* (1988)	Camry, Solara, Corolla, Lexus[b]	166 131	127 489
United States	New United Motor Manufacturing Inc. *NUMMI* (1984)	Corolla, Tacoma	305 691	2 703
United States	Toyota Motor Manufacturing Kentucky Inc. *TMMK* (1988)	Avalon, Camry, Sienna	446 199	17 831
United States	Toyota Motor Manufacturing Indiana Inc. *TMMI* (1988)	Tundra	170 442	8 022
Europe	**(Sales: 666 000[a])**		**219 542**	**168 113**
Czech Republic	Toyota Peugeot Citroen Auto Czech *TPCA* (2005)	New small car for 2005	–	–
France	Toyota Motor Manufacturing *TMMF* (2001)	Yaris	61 904	47 390
Portugal	Salvador Caetano (1968)	Dyna, Hiace, Optimo	1 633	87
Turkey	Toyota Motor Manufacturing Turkey Inc. *TMMT* (2000)[c]	Corolla	2 590	–
United Kingdom	Toyota Motor Manufacturing U.K. Ltd. *TMUK* (1992)	Avensis, Corolla	153 415	120 636
Asia (excl. Japan)	**(Sales: 721 000[a])**		**374 096**	**71 053**
Australia	Toyota Motor Corp. Australia (1963)	Camry, Corolla, Avalon	94 589	59 231
China	Tianjin Toyota Motor Co. Ltd. *TTMC* (2002)	..	–[d]	–[d]
India	Toyota Kirloskar Motor Ltd. (1999)	Qualis	28 440	–
Indonesia	PT Toyota-Astra Motor (1970)	Camry, Corolla, TUV, Dyna, etc.	73 260	22
Malaysia	Assembly Services Sbn. Bhd. (1968)	Camry, Corolla, Dyna, Hiace, etc.	17 067	–
Philippines	Toyota Motor Philippines Corp. (1989)	Camry, Corolla, TUV	13 529	–
Taiwan Province of China	Kuozui Motors Ltd. (1986)	Tercel, TUV, Hiace, Corolla	67 495	–
Thailand	Toyota Motor Thailand *TMT* (1964)	Camry, Corolla, Hilux, Soluna, etc.	77 415	11 800
Viet Nam	Toyota Motor Vietnam Co. (1996)	Corolla, Hiace, Camry, TUV	2 301	–
Africa	**(Sales: 126 500[a])**		**77 479**	**2 224**
South Africa	Toyota South Africa Motors (Pty) (1962)	Camry, Corolla, Dyna, Hiace, etc.	77 479	2 224
Latin America	**(Sales: 107 500[a])**		**17 838**	**16 899**
Argentina	Toyota Argentina S.A. (1997)	Hilux	16 200	7 904
Brazil	Toyota do Brasil S.A. (1959)[e] (2002)	Bandeirante, Corolla, new Corolla	1 638	1 350
Venezuela	Toyota de Venezuela C.A. (1981) (2002)	Corolla, Land Cruiser, new Corolla		738
Japan	**(Sales: 2 291 503[f])**		**4 046 637**	**1 749 041**

Source: Toyota Motor Company.

[a] Local production and imports from Japan.
[b] As of 2002.
[c] Established in 1994 as Toyotasa, a joint venture between Toyota and Sabanci.
[d] Start-up in 2002.
[e] Production of the Bandeirante ended in 2001.
[f] Domestic sales only.

Annex table A.V.2. World motor vehicle production by top 10 TNCs, 2000

(Thousands)

Region/economy	Total	United States		Germany		France		Italy	Japan		
		General Motors	Ford	Daimler Chrysler	Volkswagen	PSA	Renault	Fiat	Toyota	Nissan	Honda
All countries	**44 283.5**	**8 133.4**	**7 323.0**	**4 666.5**	**5 106.7**	**2 879.4**	**2 444.3**	**2 641.4**	**5 954.7**	**2 628.8**	**2 505.3**
European Union	**15 769.5**	**1 858.4**	**2 229.0**	**1 432.7**	**3 183.2**	**2 660.0**	**1 997.1**	**1 696.5**	**177.9**	**460.0**	**74.8**
Austria	98.5	–	–	98.5	–	–	–	–	–	–	–
Belgium	1 031.3	329.3a	417.7d	–	284.3i	–	–	–	–	–	–
Finland	19.0	19.0b	–	–	–	–	–	–	–	–	–
France	3 325.7	–	–	101.1g	–	1 720.4	1 452.1o	52.1r	–*	–	–
Germany	4 393.7	652.9a	577.4	1 143.7	2 006.2k	–	–	13.5s	–	–	–
Italy	1 684.1	–	–	–	0.3k	98.9	–	1 583.0t	2.0aa	–	–
Netherlands	158.2	–	158.2e	–	–	–	–	–	–	–	–
Portugal	234.7	52.5	52.1	–	75.9	49.7	–	–	4.5	–	–
Spain	2 949.5	373.6	343.8	89.4	814.5i	603.6	545.0p	47.2u	–	132.3	–
Sweden	265.0	114.0b	151.0e	–	–	–	–	–	–	–	–
United Kingdom	1 609.8	317.2c	528.9f	1.9l	187.4	–	0.6v	17	1.3	327.7	74.8
North America	**14 856.7**	**5 186.4**	**4 429.5**	**2 722.1**	**0.0**	**0.0**	**34.6**	**–**	**1 103.0**	**377.3**	**1 003.9**
Canada	2 829.5	963.4	629.6	726.0	–	–	–	–	183.7	326.8	
United States	12 027.2	4 223.0	3 799.9	1 996.1h	–	–	34.6q	–	919.3	377.3	677.1
Asia-Pacific	**8 168.1**	**171.7**	**161.8**	**1.4**	**315.7**	**106.7**	**0.9**	**46.5**	**4 546.0**	**1 444.0**	**1 373.4**
Australia	311.0	133.2	85.0	–	–	–	–	0.9w	92.0	–	–
China	458.9	30.1	26.8	–	315.7	53.9	0.4	–	–	–	32.0
India	78.1	–	–	–	–	–	–	45.6x	21.0	–	11.5
Indonesia	119.6	–	–	1.4	–	0.2	–	–	109.0bb	–	9.0
Iran	51.7	–	–	–	–	51.7	–	–	–	–	–
Japan	6 726.0	–	–	–	–	–	–	–	4 152.0b	1 350.0	1 223.9
Malaysia	18.1	–	–	–	–	–	0.5	–	11.6cc	–	6.0
Pakistan	6.9	–	–	–	–	–	–	–	0.9dd	–	6.0
Philippines	25.4	–	–	–	–	–	–	–	13.4cc	–	12.0
Taiwan Province of China	243.0	–	50.0	–	–	–	–	–	81.0	75.0	37.0
Thailand	127.4	8.5	–	–	–	0.9	–	–	63.0c	19.0	36.0
Viet Nam	2.1	–	–	–	–	–	–	–	2.1bb	–	–
Latin America	**3 807.9**	**819.5**	**441.5**	**484.1**	**979.5**	**77.9**	**142.9**	**469.0**	**36.1**	**316.0**	**41.4**
Argentina	337.4	41.2	56.3	15.9	44.5	69.4	57.6	35.2y	17.3	–	–
Brazil	1 551.2	334.8	120.8	53.9	509.3j	–	59.0	433.8	18.8	–	20.6
Chile	5.2	–	–	–	–	5.2	–	–	–	–	–
Colombia	15.2	–	–	–	–	–	15.2	–	–	–	–
Mexico	1 882.6	443.4	264.4	414.3	425.7	–	–	–	–	316.0	18.8
Uruguay	14.4	–	–	–	–	3.3	11.1	–	–	–	–
Venezuela	2.0	–	–	–	–	–	–	–	–	–	2.0
European periphery	**1 463.8**	**97.4**	**61.1**	**6.5**	**585.8**	**21.1**	**262.5**	**405.0**	**14.7**	**0.0**	**9.8**
Czech Republic	450.9	–	–	–	450.9	–	–	–	–	–	–
Hungary	57.1	–	–	–	57.1n	–	–	–	–	–	–
Poland	403.5	97.4a	20.0	–	–	4.7	–	281.5	–	–	–
Russian Federation	–	–	–	–	0.8	–	–	–	–	–	–
Slovakia	77.8	–	–	–	77.8	–	–	–	–	–	–
Slovenia	122.9	–	–	–	–	–	122.9	–	–	–	–
Turkey	350.7	–	41.1	6.5	–	15.6	139.5	123.5z	14.7	–	9.8
Africa	**217.4**	**0.0**	**0.0**	**19.6**	**42.6**	**13.8**	**6.4**	**24.5**	**77.0**	**31.5**	**2.0**
Egypt	5.0	–	–	–	–	1.8	–	3.2	–	–	–
Kenya	0.3	–	–	–	–	0.3	–	–	–	–	–
Morocco	19.4	–	–	–	–	3.8	6.4	9.2	–	–	–
Nigeria	7.8	–	–	–	–	7.1	–	0.8	–	–	–
South Africa	184.1	–	–	19.6	42.6	–	–	11.3	77.0	31.5	2.0
Zimbabwe	0.8	–	–	–	–	0.8	–	–	–	–	–

Source: UNCTAD, based on Organisation Internationale des Constructeurs d'Automobiles (OICA).

a Opel.
b Saab.
c Vauxhall and IBC.
d Ford and Volvo.
e Volvo.
f Ford, Jaguar, Aston Martin and Land Rover.
g Smart.
h Mercedes-FL-Western Star and Chrysler.
i VW-Seat.
j Audi and VW.
k Lamborghini.
l Rolls "Royce.
m Skoda.
n Audi.
o Renault, Sovab and RVI.
p Renault and RVI.
q Mack-USA.

r Fiat-Sevel and Lancia-Sevel.
s Iveco-Magirus.
t Fiat, Alfa Romeo, Lancia, Ferrari-Maserati, Fiat Sevel and Ivevo-Astra.
u Iveco Pegaso.
v Seddon Atkinson.
w Iveco.
x Iveco Ashok Leyland and Fiat.
y Fiat and Iveco.
z Fiat-Tofas and Iveco-Otoyol.
aa Daihatsu.
bb Toyota, Daihatsu and Hino.
cc Hino and Toyota.
dd Hino.
* Toyota opened a new plant for the production of the Yaris in 2001.

Annex table A.VI.1. Distribution of total exports and intra-firm exports of foreign affiliates of United States TNCs in the manufacturing sector, by category, 1983 and 1998

(Percentage)

Industry	1983		1998	
	Total exports	Intra-firm exports	Total exports	Intra-firm exports
Low technology	30.9	22.9	21.4	13.9
Food, beverages and tobacco	5.4	3.4	7.7	5.1
Textiles, clothing and leather	1.1	0.7	0.9	0.8
Wood and wood products	2.2	1.0	2.3	1.6
Publishing, printing and reproduction of recorded media	0.3	0.1	0.3	0.1
Coke, petroleum products and nuclear fuel	14.7	14.0	2.8	2.3
Non-metallic mineral products	1.0	0.5	0.7	0.4
Metal and metal products	6.3	3.2	6.7	3.6
Medium technology	45.1	48.6	39.3	43.0
Chemicals and chemical products (excl. pharmaceuticals)	13.5	11.0	8.5	6.7
Rubber and plastic products	1.9	1.5	2.2	1.7
Machinery and equipment	4.2	3.6	3.8	4.0
Motor vehicles and other transport equipment	25.5	32.6	24.7	30.5
High technology	24.0	28.5	39.3	43.1
Electrical and electronic equipment	17.4	21.5	28.8	30.6
Precision instruments	3.6	4.1	4.0	4.6
Pharmaceuticals	3.0	2.9	6.5	8.0
Manufacturing total	100.0	100.0	100.0	100.0

Source: UNCTAD, FDI/TNC database, based on United States, Department of Commerce, 1986 and 2002.

Note: Motor vehicles include building and repairing of ships and boats (low technology) and manufacturing of aircraft and spacecraft (high technology). Data refer to non-bank majority-owned affiliates of United States non-bank TNCs.

Annex table A.VI.2. The trade performance of foreign affiliates and EPZs in Hungary, 1995-2000

(Millions of dollars and percentage)

Item / year	1995	1996	1997	1998	1999	2000
Total national exports, all firms	12 810	14 183	19 100	23 005	25 013	28 092
Total national imports, all firms	15 252	16 828	21 234	25 706	28 008	32 080
Trade balance	-2 442	-2 645	-2 134	-2 701	-2 996	-3 988
Total exports of foreign affiliates	7 456	8 188	14 185	17 748	20 013	..
Total imports of foreign affiliates	9 683	10 783	15 427	19 061	21 421	..
Trade balance of foreign affiliates	-2 227	-2 594	-1 242	-1 313	-1 408	..
EPZ exports	..	2 846	5 034	8 272	10 752	12 570
EPZ imports	..	2 527	4 202	6 471	8 561	10 058
Trade balance of EPZs	..	319	832	1 802	2 192	2 512
Shares:						
Foreign affiliates in exports	58.2	57.7	74.3	77.1	80.0	..
Foreign affiliates in imports	63.5	64.1	72.7	74.2	76.5	..
EPZs in exports	..	20.1	26.4	36.0	43.0	44.7
EPZs in imports	..	15.0	19.8	25.2	30.6	31.4

Source: Hungarian Central Statistical Office, unpublished data.

Annex table VI.3. The top ten Hungarian export products, 1999
(Millions of dollars and percentage)

SITC	Product	Value of exports	Share in exports	Produced by foreign affiliates	EPZ	Export share in 1992
71322	Reciprocating piston engines	2 183	8.7	Fully	Fully	0.0
7527	Storage units (computers)	1 544	6.2	Fully	Fully	0.0
7812	Motor vehicles for the transport of persons	1 343	5.4	Fully	Partly	0.2
75997	Parts, accessories for automatic data processing machines	1 094	4.4	Partly	Fully	0.1
76381	Video recording or reproducing apparatus	680	2.7	Fully	Fully	0.1
7526	Input or output units	669	2.7	Partly	Fully	0.0
7611	Television receivers	378	1.5	Fully	Partly	0.2
82119	Parts of seats for motor vehicles for the transport of persons	357	1.4	Fully	Fully	0.1
71323	Compression-ignition engines	316	1.3	Fully	Fully	0.1
78439	Other parts for motor vehicles for the transport of persons	315	1.3	Partly	Partly	0.1
	Total 10 products	**8 879**	**35.6**	**-**	**-**	**0.9**

Source: UNCTAD, based on Antalóczy and Sass, 2001, pp. 52-53.

Annex table A.VI.4. The largest contract electronics manufacturers in Central and Eastern Europe, November 2001
(Cumulative investment, millions of dollars)

		Central and Eastern European host locations							Total CEE	Share (Per cent)
Firm	Home country	Hungary	Estonia	Czech Republic	Romania	Poland	Russian Federation	Other countries		
Flextronics	Singapore	1 023	-	256	-	75	-	-	1 354	37.4
Elcoteq	Finland	414	470	-	-	27	29	-	940	25.9
Solectron	United States	77	-	-	210	-	-	-	287	7.9
Videoton	Hungary	250	-	-	-	-	-	16	266	7.3
Sanmina-SCI	United States	260	-	-	-	-	-	-	260	7.2
Zollner	Germany	168	-	-	-	-	-	-	168	4.6
Celestica	Canada	-	-	134	-	-	-	-	134	3.7
Other firms		27	-	25	32	101	-	31	216	6.0
Total firms		**2 219**	**470**	**415**	**242**	**203**	**29**	**47**	**3 625**	**100.0**

Source: UNCTAD, based on *Strategic Direct Investor,* 2001.

Annex table B.1. FDI inflows, by host region and economy, 1990-2001
(Millions of dollars)

Host region/economy	1990-1995 (Annual average)	1996	1997	1998	1999	2000	2001
World	**225 321**	**386 140**	**478 082**	**694 457**	**1 088 263**	**1 491 934**	**735 146**
Developed economies	**145 019**	**219 908**	**267 947**	**484 239**	**837 761**	**1 227 476**	**503 144**
Western Europe	**87 383**	**115 863**	**137 890**	**274 739**	**507 222**	**832 067**	**336 210**
European Union	**84 165**	**110 376**	**127 919**	**262 216**	**487 898**	**808 519**	**322 954**
Austria	1 265	4 426	2 654	4 533	2 975	8 840	5 909
Belgium and Luxembourg	9 775	14 064	11 998	22 691	133 059	245 561	50 996
Denmark	2 433	776	2 801	7 730	15 911	32 289	6 969
Finland	742	1 109	2 119	12 138	4 613	8 834	3 615
France	16 293	21 960	23 174	30 984	47 070	42 930	52 623
Germany	4 188	6 573	12 244	24 593	54 754	195 122	31 833
Greece	1 049	1 058	984	85	571	1 089	1 560
Ireland	1 139	2 618	2 743	11 035	14 929	24 117	9 775
Italy	3 784	3 546	3 700	2 635	6 911	13 377	14 873
Netherlands	8 061	16 663	11 132	36 964	41 289	52 453	50 471[h]
Portugal	1 737	1 488	2 477	3 144	1 234	6 464[a]	6 017[a]
Spain	10 745	6 585	7 697	11 797	15 758	37 523	21 781
Sweden	5 488	5 077	10 968	19 564	60 850	23 367	12 734
United Kingdom	17 467	24 434	33 229	74 324	87 973	116 552	53 799
Other Western Europe	**3 218**	**5 487**	**9 971**	**12 523**	**19 324**	**23 549**	**13 256**
Gibraltar	34	-22[a]	126[a]	-162[a]	17[a]	141[a]	-1[a]
Iceland	3	84	149	148	66	159	146
Malta	84	277	81	267	822	652	314
Norway	756	2 070	2 979	3 329	6 701	6 312	2 811
Switzerland	2 341	3 079	6 636	8 941	11 718	16 285	9 986
North America	**47 058**	**94 089**	**114 925**	**197 243**	**307 811**	**367 529**	**151 900**
Canada	6 230	9 634	11 527	22 809	24 435	66 617	27 465
United States	40 829	84 455	103 398	174 434	283 376	300 912	124 435
Other developed economies	**10 578**	**9 955**	**15 132**	**12 257**	**22 728**	**27 880**	**15 034**
Australia	6 575	6 110	7 657	6 112	5 686	11 957	4 090
Israel	580	1 387	1 628	1 760	2 889	4 392	3 044
Japan	1 144	228	3 224	3 193	12 741	8 322	6 202
New Zealand	2 279	2 231	2 624	1 191	1 412	3 209	1 699
Developing economies	**74 288**	**152 685**	**191 022**	**187 611**	**225 140**	**237 894**	**204 801**
Africa	**4 320**	**5 835**	**10 744**	**9 021**	**12 821**	**8 694**	**17 165**
North Africa	**1 543**	**1 479**	**2 607**	**2 788**	**4 896**	**2 904**	**5 323**
Algeria	25	270	260	501	507	438	1 196
Egypt	632	636	887	1 065	2 919	1 235	510
Libyan Arab Jamahiriya	37	-136	-82	-150	-118	-142	-101
Morocco	428	357	1 079	333	850	201	2 658
Sudan	13	-	98	371	371	392	574
Tunisia	408	351	365	668	368	779	486
Other Africa	**2 777**	**4 356**	**8 137**	**6 233**	**7 925**	**5 790**	**11 841**
Angola	260	181	412	1 114	2 471	879	1 119
Benin	47	25	26	35	61	97	131
Botswana	-24	70	100	96	37	57	57
Burkina Faso	6	17	13	10	13	23	26
Burundi	1	-	-	2	-	12	-
Cameroon	-16	35[a]	45[a]	50[a]	40[a]	31[a]	75[a]
Cape Verde	6	29	12	9	53	21	1
Central African Republic	-3	5[a]	6[a]	5[a]	13[a]	5[a]	8[a]
Chad	12	18[a]	15[a]	16[a]	15[a]	15[a]	80
Comoros	-	1[a]	-[a]	3[a]	-[a]	1[a]	1[a]
Congo	18	20[a]	-12[a]	118[a]	135[a]	-75[a]	59[a]
Congo, Dem. Rep. of	- 3	25[a]	-44[a]	61[a]	11[a]	23[a]	32[a]
Côte d'Ivoire	116	302	450	416	381	255	258[a]
Djibouti	2	3	2	3	4	3	3
Equatorial Guinea	37	376	20[a]	24[a]	120[a]	120[a]	88[a]
Eritrea	..	37[a]	39[a]	32[a]	36[a]	35[a]	34[a]
Ethiopia	9	22	288	261	70	135	20[a]
Gabon	-64	-489	-311	147	-157	252[a]	200[a]
Gambia	12	18	21	24	49	44	35
Ghana	87	120	82	56	63	115	89
Guinea	13	24	17	18	63	33[a]	38[a]
Guinea-Bissau	2	1[a]	11	4	9	23	30[a]
Kenya	20	13	40	42	42	127	50
Lesotho	213	286	269	262	163	119	118

/....

Annex table B.1. FDI inflows, by host region and economy, 1990-2001 (continued)

(Millions of dollars)

Host region/economy	1990-1995 (Annual average)	1996	1997	1998	1999	2000	2001
Liberia	32	-132[a]	15[a]	16[a]	10[a]	12[a]	13[a]
Madagascar	15	10	14	16	58	70	108
Malawi	15	44	22	70	60[a]	45[a]	58[a]
Mali	22	47	74	36	51	106	103[a]
Mauritania	7	4[a]	1[a]	-	1[a]	9[a]	30[a]
Mauritius	21	37	55	12	49	277	12
Mozambique	28	73	64	235	382	139	255
Namibia	96	129	84	77	111	153	99
Niger	20	20	25	9	-	19	13[a]
Nigeria	1 097	1 593	1 539	1 051	1 005	930	1 104
Rwanda	4	2	3	7	2	9	9
São Tomé and Principe	-[b]	-[a]	-[a]	-[a]	1[a]	2[a]	1[a]
Senegal	29	7	176	71	136	88	125[a]
Seychelles	23	30	54	55	60	56	34
Sierra Leone	4	19[a]	10[a]	-1[a]	6[a]	5[a]	4[a]
Somalia	2	1[a]	1[a]	-[a]	-1[a]	-[a]	-[a]
South Africa	301	818	3 817	561	1 502	888	6 653
Swaziland	63	22	- 15	152	100	- 19	69
Togo	10	27	23	42	70	57	67[a]
Uganda	44	121	175	210	222	254	229
United Republic of Tanzania	39	149	158	172	183	193	224
Zambia	122	117	207	198	163	122	72
Zimbabwe	34	81	135	444	59	23	5
Latin America and the Caribbean	**22 259**	**52 856**	**74 299**	**82 203**	**109 311**	**95 405**	**85 373**
South America	**10 357**	**32 232**	**48 166**	**51 886**	**70 880**	**56 837**	**40 111**
Argentina	3 458	6 951	9 156	6 848	24 134	11 152	3 181
Bolivia	152	426	879	952	985	693	647
Brazil	2 000	10 792	18 993	28 856	28 578	32 779	22 457
Chile	1 499	4 633	5 219	4 638	9 221	3 674	5 508
Colombia	843	3 112	5 562	2 828	1 468	2 374	2 018
Ecuador	330	500	724	870	648	720	1 330
Guyana	70	93	53	47	48	67	56[a]
Paraguay	93	144	230	336	66	96	152
Peru	1 004	3 242	1 697	1 842	2 263	681	1 100
Suriname	-35	19	- 9	9	-62	-148	-67[a]
Uruguay	83	137	126	164	239	285	320
Venezuela	861	2 183	5 536	4 495	3 290	4 464	3 409
Other Latin America and the Caribbean	**11 901**	**20 624**	**26 133**	**30 318**	**38 431**	**38 568**	**45 261**
Anguilla	11	33	21	28	38	39	28
Antigua and Barbuda	34	19	23	27	37	33	54
Aruba	34	84	196	84	392	-226	-324
Bahamas	23	88	210	147	149	250	101
Barbados	11	13	15	16	17	19	18[a]
Belize	16	17	12	19	56	28	34[a]
Bermuda	1 828	3 971[a]	2 928[a]	5 399[a]	9 470[a]	10 980[a]	9 859[a]
Cayman Islands	174	1 232[a]	3 151[a]	4 354[a]	6 569[a]	6 858[a]	3 086[a]
Costa Rica	241	427	407	612	620	409	448
Cuba	7	19[a]	1[a]	15[a]	9[a]	-10[a]	5[a]
Dominica	23	18	21	7	18	11	14
Dominican Republic	211	97	421	700	1 338	953	1 198
El Salvador	17	-5	59	1 104	216	173	268
Grenada	18	17	34	49	42	36	34
Guatemala	88	77	85	673	155	230	456
Haiti	2	4	4	11	30	13	3[a]
Honduras	52	90	128	99	237	282	195
Jamaica	159	184	203	369	524	471	722
Mexico	8 080	9 938	14 044	11 933	12 534	14 706	24 731
Montserrat	6	-	3	3	8	4	4
Netherlands Antilles	21	2 826[a]	1 038[a]	892[a]	532[a]	777[a]	734[a]
Nicaragua	40	97	173	184	300	265	132
Panama	197	416	1 299	1 296	652	603	513
Saint Kitts and Nevis	22	35	20	32	58	96	83
Saint Lucia	41	18	48	83	83	49	51
Saint Vincent and the Grenadines	23	43	93	89	56	28	36
Trinidad and Tobago	269	356	1 000	732	643	662	835
Virgin Islands (United Kingdom)	252	510	500[a]	1 362[a]	3 648[a]	830[a]	1 947[a]
Asia and the Pacific	**47 710**	**93 994**	**105 978**	**96 386**	**103 008**	**133 795**	**102 264**
Asia	**47 321**	**93 331**	**105 828**	**96 109**	**102 779**	**133 707**	**102 066**
West Asia	**2 096**	**2 898**	**5 645**	**6 705**	**324**	**688**	**4 133**
Bahrain	278	2 048	329	180	454	358	92
Cyprus	93	54	76	69	121	163	163

Annex table B.1. FDI inflows, by host region and economy, 1990-2001 (continued)
(Millions of dollars)

Host region/economy	1990-1995 (Annual average)	1996	1997	1998	1999	2000	2001
Iran, Islamic Republic of	-17	26	53	24	35	39	33[a]
Iraq	1	1[a]	1[a]	7[a]	-7[a]	-3[a]	-1[a]
Jordan	8	16	361	310	158	39[a]	169[a]
Kuwait	-3	347	20	59	72	16	-40
Lebanon	10	80[a]	150[a]	200[a]	250[a]	298[a]	249 [a]
Oman	105	60	65	101	21	23	49 [a]
Occupied Palestinian Territory	..	4[a]	149	58	19	76[a]	51 [a]
Qatar	64	339[a]	418[a]	347[a]	113[a]	252[a]	237 [a]
Saudi Arabia	298	-1 129	3 044	4 289	-780	-1 884	20
Syrian Arab Republic	102	89	80	82	263	270	205 [a]
Turkey	745	722	805	940	783	982	3 266
United Arab Emirates	151	301[a]	232[a]	258[a]	-985[a]	260[a]	-156 [a]
Yemen	262	-60	-139	-219	-194	-201	-205 [a]
Central Asia	**662**	**2 590**	**3 844**	**3 152**	**2 466**	**1 895**	**3 569**
Armenia	10	18	52	232	130	133[a]	140[a]
Azerbaijan	89[c]	591	1 067	1 085	510	130	227
Georgia	6[c]	45	243	265	82	131	160[a]
Kazakhstan	754[d]	1 674	2 107	1 233	1 468	1 278	2 760
Kyrgyzstan	48[e]	47	83	109	44	-2	40[a]
Tajikistan	10[d]	18[a]	18[a]	25[a]	21[a]	22[a]	22[a]
Turkmenistan	138[e]	108[a]	108[a]	62[a]	89[a]	131[a]	150[a]
Uzbekistan	27[d]	90[a]	167[a]	140[a]	121[a]	73[a]	71[a]
South, East and South-East Asia	**44 564**	**87 843**	**96 338**	**86 252**	**99 990**	**131 123**	**94 365**
Afghanistan	-[f]	1	- 1[a]	-[a]	6[a]	-[a]	2[a]
Bangladesh	6	14	139	190	178	280	78
Bhutan	-[b]	1[a]	- 1[a]	-[a]	-[a]	-[a]	-[a]
Brunei Darussalam	102	654[g]	702[g]	573[g]	596[g]	600[g]	244[g, h]
Cambodia	80[d]	586	- 15	230	214	179	113
China	19 360	40 180	44 237	43 751	40 319	40 772	46 846
Hong Kong, China	4 859	10 460[a]	11 368[a]	14 770	24 596	61 938	22 834
India	703	2 525	3 619	2 633	2 168	2 319	3 403
Indonesia	2 135	6 194	4 677	-356	-2 745	-4 550	-3 277
Korea, Dem. People's Rep. of	14	2[a]	307[a]	31[a]	-15[a]	5[a]	7[a]
Korea, Republic of	978	2 325	2 844	5 412	9 333	9 283	3 198
Lao People's Democratic Republic	33	128	86	45	52	34	24[h]
Macao, China	- 1	6[a]	2[a]	-18[a]	9[a]	-7[a]	-5[a]
Malaysia	4 655	7 296	6 324	2 714	3 895	3 788	554
Maldives	7	9	11	12	12	13	12[a]
Mongolia	8[f]	16	25	19	30	54	63
Myanmar	180	310	387	314	253	255	123[h]
Nepal	6	19	23	12	4	-	19[a]
Pakistan	389	918	713	507	530	305	385
Philippines	1 028	1 520	1 249	1 752	578	1 241	1 792
Singapore	5 782	8 608	10 746	6 389	11 803	5 407	8 609
Sri Lanka	110	133	433	206	201	178	172
Taiwan Province of China	1 222	1 864	2 248	222	2 926	4 928	4 109
Thailand	1 990	2 271	3 626	5 143	3 561	2 813	3 759
Viet Nam	947	1 803	2 587	1 700	1 484	1 289	1 300[a]
The Pacific	**388**	**663**	**150**	**277**	**229**	**88**	**198**
Fiji	83	- 33	-11	140	-79	-69	-3[a]
Kiribati	-	1[a]	1[a]	1[a]	1[a]	1[a]	1[a]
New Caledonia	11	- 1[a]	10[a]	-[a]	4[a]	5[a]	3[a]
Papua New Guinea	253	654	88	110	296	130[a]	179[a]
Samoa	4	1[a]	20[a]	3[a]	2[a]	-2[a]	1[a]
Solomon Islands	11	6	9	2	-19	1	-5[a]
Tonga	1	2[a]	3[a]	2[a]	2[a]	2[a]	2[a]
Tuvalu	-[c]	-[a]	-[a]	-[a]	-[a]	-[a]	-[a]
Vanuatu	25	33	30	20	20	20	20[a]
Central and Eastern Europe	**6 014**	**13 547**	**19 113**	**22 608**	**25 363**	**26 563**	**27 200**
Albania	42[f]	90	48	45	41	143	181
Belarus	12[d]	105	352	203	444	90	169
Bosnia and Herzegovina	-[b]	- 2	1	55	149	131	164
Bulgaria	57	109	505	537	819	1 002	689
Croatia	120[e]	516	551	1 014	1 635	1 127	1 442
Czech Republic	947	1 428	1 300	3 718	6 324	4 986	4 916
Estonia	165	150	267	581	305	387	538
Hungary	1 863	2 275	2 173	2 036	1 944	1 643	2 414
Latvia	116[d]	382	521	357	348	408	201
Lithuania	36[d]	152	355	926	486	379	446
Moldova, Republic of	31[d]	24	79	74	37	138	150
Poland	1 396	4 498	4 908	6 365	7 270	9 342	8 830
Romania	162	263	1 215	2 031	1 041	1 025	1 137
Russian Federation	1 167[d]	2 579	4 865	2 761	3 309	2 714	2 540

Annex table B.1. FDI inflows, by host region and economy, 1990-2001 (concluded)
(Millions of dollars)

Host region/economy	1990-1995 (Annual average)	1996	1997	1998	1999	2000	2001
Slovakia	147	251	220	684	390	2 075	1 475
Slovenia	100	194	375	248	181	176	442
TFYR Macedonia	17[c]	12	16	118	32	178	530
Ukraine	206[d]	521	624	743	496	595	772
Yugoslavia	82[d]	-	740	113	112	25	165
Memorandum							
Least developed countries [j]	**1 607**	**2 630**	**2 728**	**3 948**	**5 428**	**3 704**	**3 838**
Oil-exporting countries [k]	**6 048**	**13 406**	**18 687**	**14 442**	**5 461**	**3 510**	**6 557**
All developing countries, excluding China	**54 928**	**112 505**	**146 785**	**143 860**	**184 821**	**197 122**	**157 955**

Source: UNCTAD, FDI/TNC database.

[a] Estimates. For details, see "Definitions and Sources" in annex B.
[b] 1995.
[c] Annual average from 1994 to 1995.
[d] Annual average from 1992 to 1995.
[e] Annual average from 1993 to 1995.
[f] Annual average from 1991 to 1995.
[g] Balance-of-payments basis, based on the International Transaction Reporting System (ITRS).
[h] Preliminary data.
[i] Annual average from 1990 to 1991.
[j] Least developed countries include: Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, Cape Verde, Central African Republic, Chad, Comoros, Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, Lao People's Democratic Republic, Lesotho, Liberia, Madagascar, Malawi, Maldives, Mali, Mauritania, Mozambique, Myanmar, Nepal, Niger, Rwanda, Samoa, Sao Tome and Principe, Senegal, Sierra Leone, Solomon Islands, Somalia, Sudan, Togo, Tuvalu, Uganda, United Republic of Tanzania, Vanuatu, Yemen and Zambia.
[k] Oil-exporting countries include: Cameroon, Algeria, Angola, Bahrain, Brunei Darussalam, Congo, Ecuador, Gabon, Indonesia, Islamic Republic of Iran, Iraq, Kuwait, Libyan Arab Jamahiriya, Nigeria, Oman, Qatar, Saudi Arabia, Syrian Arab Republic, Trinidad and Tobago, United Arab Emirates and Venezuela.

Annex table B.2. FDI outflows, by home region and economy, 1990-2001
(Millions of dollars)

Home region/economy	1990-1995 (Annual average)	1996	1997	1998	1999	2000	2001
World	**253 302**	**394 996**	**474 010**	**684 039**	**1 042 051**	**1 379 493**	**620 713**
Developed economies	**221 005**	**332 395**	**394 999**	**631 291**	**965 977**	**1 271 273**	**580 624**
Western Europe	**127 149**	**204 850**	**242 971**	**436 413**	**754 443**	**1 018 392**	**380 434**
European Union	**117 308**	**183 708**	**220 946**	**415 365**	**715 741**	**968 019**	**365 182**
Austria	1 378	1 934	1 987	2 745	3 301	5 740	2 961
Belgium and Luxembourg	6 978	8 026	7 252	28 845	121 719	241 997	67 307
Denmark	2 363	2 518	4 209	4 477	16 155	24 359	8 951
Finland	1 506	3 595	5 278	18 647	6 616	24 030	7 272
France	23 749	30 421	35 584	48 611	120 618	175 504	82 814
Germany	23 479	50 804	41 797	88 823	109 450	49 793	43 257
Greece	11	- 25[a]	156[a]	262	539[a]	2 102[a]	- 607[a]
Ireland	375	727	1 008	3 906	4 267	3 973	5 396
Italy	6 444	8 697	10 414	12 407	6 722	12 319	21 476[h]
Netherlands	14 496	32 119	24 494	36 669	57 738	71 346	44 020
Portugal	406	785	1 903	3 847	3 170	7 674	7 898
Spain	3 559	5 397	12 626	18 936	42 084	54 675	27 805
Sweden	6 914	4 665	12 648	24 369	21 927	40 578	7 170
United Kingdom	25 648	34 045	61 590	122 820	201 437	253 929	39 462
Other Western Europe	**9 841**	**21 142**	**22 025**	**21 048**	**38 702**	**50 373**	**15 252**
Iceland	17	63	55	74	106	362	331
Malta	2[b]	6	17	15	45	29	6
Norway	1 312	4 922	4 221	2 192	5 276	7 332	- 1 405
Switzerland	8 512	16 152	17 732	18 767	33 275	42 650	16 320
North America	**65 003**	**97 522**	**118 838**	**165 362**	**190 179**	**212 468**	**149 449**
Canada	6 853	13 096	23 069	34 358	15 603	47 499	35 472
United States	58 150	84 426	95 769	131 004	174 576	164 969	113 977
Other developed economies	**28 853**	**30 023**	**33 190**	**29 516**	**21 356**	**40 414**	**50 741**
Australia	2 587	7 086	6 448	3 372	- 2 997	5 091	11 165
Israel	533	1 042	795	1 063	806	2 802	1 188
Japan	25 042	23 428	25 993	24 153	22 743	31 558	38 088
New Zealand	690	- 1 533	- 45	928	803	963	301
Developing economies	**32 021**	**61 309**	**74 797**	**50 256**	**73 636**	**104 207**	**36 571**
Africa	**1 979**	**1 463**	**3 826**	**2 054**	**2 707**	**1 481**	**- 2 544**
North Africa	**40**	**103**	**475**	**360**	**351**	**228**	**197**
Algeria	15	2[a]	8[a]	1	47	18	9
Egypt	40	5	166	38	81	51	12
Libyan Arab Jamahiriya	- 40	63	284	299	208	98	84
Morocco	22	30	9	20	12	59	92
Tunisia	4	2	9	2	3	2	-
Other Africa	**1 939**	**1 360**	**3 351**	**1 694**	**2 356**	**1 253**	**- 2 741**
Angola	-	-[a]	-[a]	-[a]	-[a]	-[a]	-[a]
Benin	..	12	12	2	23	41	22[a]
Botswana	14	- 1	4	4	1	2	2
Burkina Faso	1	-	1	5	5	-	3[a]
Burundi	-	-	-	-	-	-	-
Cameroon	15	13	7[a]	-[a]	3[a]	4[a]	3[a]
Cape Verde	-	-	-[a]	-[a]	-[a]	-[a]	-[a]
Central African Republic	4	-	- 1[a]	1[a]	-[a]	-[a]	-[a]
Chad	9	4	4[a]	5[a]	4[a]	5[a]	5[a]
Comoros	-[c]	..	..	..	..	..	..
Congo	1	4	4[a]	-[a]	13[a]	3[a]	5[a]
Côte d'Ivoire	86	33	34	36	57	20	38[a]
Equatorial Guinea	-[c]	-[a]	1[a]	-[a]	1[a]	-[a]	-[a]
Ethiopia	..	..	228[a]	254[a]	- 46[a]	- 1[a]	69[a]
Gabon	20	2	21	33	74	43[a]	50[a]
Gambia	4	5	5	6	4	5	5
Ghana	..	150[a]	50[a]	30[a]	77[a]	52[a]	53[a]
Guinea	..	-	1[a]	-[a]	3[a]	2[a]	2[a]
Kenya	3	25	5	14	30	40	77
Liberia	85	- 59	501[a]	- 731[a]	310[a]	608[a]	62[a]
Madagascar	-	-	- 2[a]	1[a]	-[a]	1[a]	-[a]
Malawi	..	2	-[a]	6[a]	3[a]	3[a]	4[a]
Mali	-	4	5	27	50	28	35[a]
Mauritius	15	3	3	14	6	13	2
Mozambique	-[d]	-[a]	-[a]	-[a]	-[a]	-[a]	-[a]
Namibia	-	- 22	-	- 1	- 2	9	- 1

Annex table B.2. FDI outflows, by home region and economy, 1990-2001 (continued)
(Millions of dollars)

Home region/economy	1990-1995 (Annual average)	1996	1997	1998	1999	2000	2001
Niger	9	18	8	10	-	10	7[a]
Nigeria	535	42	58	107	92	85	94
Rwanda	-	1	1[a]	-[a]	-[a]	-[a]	-[a]
Senegal	6	2	-	10	6	26	14[a]
Seychelles	6	13	10	3	9	7	11
Sierra Leone	-	-	-[a]	-[a]	-[a]	-[a]	-[a]
South Africa	1 034	1 044	2 351	1 779	1 580	271	- 3 334
Swaziland	30	- 11	- 10	24	10	- 19	4
Togo	5	13	4	22	41	16	26[a]
Uganda	39	11[a]	15[a]	20[a]	- 8[a]	- 28[a]	- 5[a]
United Republic of Tanzania	-[a]	-[a]	-[a]	-[a]	-[a]	-[a]	-[a]
Zimbabwe	11	51	28	9	9	8	4
Latin America and the Caribbean	**5 169**	**7 591**	**21 392**	**18 944**	**32 798**	**21 748**	**7 217**
South America	**2 334**	**3 168**	**8 307**	**9 000**	**8 604**	**8 437**	**1 787**
Argentina	741	1 600	3 654	2 323	1 249	912	- 123
Bolivia	2	2	2	3	3	14	6[a]
Brazil	676	- 469	1 116	2 854	1 690	2 282	- 2 258
Chile	438	1 188	1 866	2 797	4 855	4 778	3 791
Colombia	102	328	809	796	116	250	- 57
Ecuador	21	23	257[a]	- 84[a]	19[a]	- 13[a]	- 26[a]
Guyana	-[a]	- 1	-[a]	-[a]	- 2[a]	2	-[a]
Paraguay	7	5	6	6	6	6	6[a]
Peru	4	- 16	84	64	128	92[a]	95[a]
Uruguay	-	-[a]	13	9	40[a]	9	19[a]
Venezuela	342	507	500	233	501	107	333
Other Latin America and the Caribbean	**2 836**	**4 423**	**13 085**	**9 943**	**24 194**	**13 311**	**5 430**
Anguilla	..	..	1[a]	1[a]	1[a]	1[a]	..
Antigua and Barbuda	1[a]	-	- 3[a]	- 1[a]	-[a]	1[a]	-[a]
Aruba	2[a]	-	- 2	1	- 8	12	13
Bahamas	-	-	-	1	-	-	-
Barbados	2	4	1	1	1	1	1[a]
Belize	2	6	4	6	10	10	8[a]
Bermuda	296	88	4 220[a]	2 980[a]	18 137[a]	9 075[a]	- 2 809[a]
Cayman Islands	277	958	4 871[a]	4 452[a]	2 187[a]	1 795[a]	2 811[a]
Costa Rica	4	6	4	5	5	5	5
Dominican Republic	9[a]	14	2[a]	2[a]	6[a]	3[a]	4[a]
El Salvador	-[f]	2	-[a]	1	23	- 5	- 10
Grenada	-	-[a]	-[a]	-[a]	-[a]	-[a]	-[a]
Guatemala	- 4	3	7[a]	8[a]	- 3[a]	37[a]	14[a]
Haiti	- 6	1	1[a]	1[a]	- 1[a]	1[a]	-[a]
Honduras	-	-[a]	-[a]	-[a]	-[a]	-[a]	-[a]
Jamaica	51	93	57	82	95	74	89
Mexico	288	38	1 108	1 363	1 475[a]	984[a]	3 708
Netherlands Antilles	-	- 329	- 2 685[a]	- 1 426[a]	145[a]	755[a]	- 175[a]
Nicaragua	..	- 8	2[a]	7[a]	3[a]	4[a]	5[a]
Panama	465	1 909	2 068[a]	3 289[a]	356[a]	- 839[a]	935[a]
Saint Kitts and Nevis	-	-[a]	-[a]	-[a]	-[a]	-[a]	-[a]
Saint Lucia	-	-[a]	-[a]	-[a]	-[a]	-[a]	-[a]
Trinidad and Tobago	-	-[a]	- 18[a]	1[a]	264	25	150
Virgin Islands (United Kingdom)	2 901[b]	1 639[a]	3 444[a]	- 830[a]	1 500[a]	1 371[a]	680[a]
Asia and the Pacific	**24 873**	**52 255**	**49 578**	**29 258**	**38 131**	**80 978**	**31 897**
Asia	**24 801**	**52 190**	**49 499**	**29 195**	**38 044**	**80 942**	**31 836**
West Asia	**- 84**	**2 533**	**- 173**	**- 1 262**	**1 660**	**1 262**	**1 090**
Bahrain	58	305	48	181	163	10	216
Cyprus	12	35	33	69	146	202	218
Iran, Islamic Republic of	- 5[g]	77	78[a]	10[a]	738[a]	472[a]	406[a]
Jordan	- 21	- 43	2[a]	2[a]	5[a]	10[a]	6[a]
Kuwait	- 103	1 740	- 969	- 1 867	23	- 303	323
Lebanon	5	6	19[a]	- 1[a]	5[a]	- 13[a]	- 3[a]
Oman	3	2	1[a]	- 5[a]	3[a]	- 2[a]	- 1[a]
Qatar	30[h]	40[a]	20[a]	20[a]	30[a]	23[a]	24[a]
Saudi Arabia	- 54	243	215[a]	74[a]	50[a]	99[a]	- 323[a]
Turkey	42	110	251	367	645	870	497
Yemen	..	..	..	..	..	..	..
Central Asia	**-**	**-**	**1**	**179**	**360**	**23**	**152**
Armenia	..	..	..	12	13	8[a]	11[a]
Azerbaijan	..	..	..	137	336	-	158[a]
Georgia	..	..	..	..	1	-	-[a]

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Annex table B.2. FDI outflows, by home region and economy, 1990-2001 (concluded)
(Millions of dollars)

Home region/economy	1990-1995 (Annual average)	1996	1997	1998	1999	2000	2001
Kazakhstan	-	-	1	8	4	10[a]	- 28[a]
Kyrgyzstan	..	..	..	23	6	5	11[a]
Turkmenistan	..	..	..	..	..	..	..
South, East and South-East Asia	**24 885**	**49 658**	**49 671**	**30 278**	**36 023**	**79 657**	**30 593**
Bangladesh	-	13	5	30	24	20[a]	25[a]
Brunei Darussalam	..	40[a]	10[a]	10[a]	20[a]	- 3	9[a]
Cambodia	..	..	..	..	..	..	..
China	2 357	2 114	2 563	2 634	1 775	916	1 775[a]
Hong Kong, China	12 946	26 531	24 407[a]	16 978	19 336	59 374	8 977
India	37	240	113	47	80	336	757
Indonesia	967	600	178	44	72	150	125
Korea, Republic of	1 842	4 670	4 449	4 740	4 198	4 999	2 600
Lao People's Democratic Republic	-g	-a	-a	-a	-a	-a	-a
Malaysia	1 050	3 768	2 675	863	1 422	2 026	267
Maldives	-	-	..	..	..	..	..
Pakistan	- 2	7	- 25	5	1	11	31
Philippines	64	182	136	160	30	107	161
Singapore	2 341	6 827	9 465	795	4 277	4 966	10 216
Sri Lanka	5	7	5	13	24	2	-
Taiwan Province of China	2 917	3 843	5 243	3 836	4 420	6 701	5 480
Thailand	349	816	447	123	344	52	171
The Pacific	**72**	**64**	**79**	**63**	**88**	**36**	**62**
Fiji	10	10	30	63	53	6	41[a]
Kiribati	..	..	..	..	..	..	..
New Caledonia	..	..	..	..	..	..	..
Papua New Guinea	63	54[a]	49[a]	-a	35[a]	28[a]	21[a]
Samoa	..	..	..	..	..	-	..
Solomon Islands	-d	..	..	..	..	-	..
Tonga	-f	..	..	..	..	1	..
Central and Eastern Europe	**275**	**1 292**	**4 215**	**2 492**	**2 437**	**4 012**	**3 518**
Albania	12[a]	10	10	1	7	6	-
Belarus	8[h]	3	2	2	-	1	-
Bosnia and Herzegovina	3[a]	29	- 2	..	..	..	..
Bulgaria	- 8[h]	- 29	- 2	-	17	3	10
Croatia	10[b]	55	186	97	35	29	119
Czech Republic	67[a]	153	25	127	90	43	96
Estonia	3[a]	40	137	6	83	63	184
Hungary	26[g]	- 3	431	481	249	555	337
Latvia	- 33[a]	3	6	54	17	10	7
Lithuania	1[h]	-	27	4	9	4	7
Moldova, Republic of	9	-	-	-	-	-	-
Poland	19	53	45	316	31	17	14
Romania	6	-	- 9	- 9	16	- 11	- 17
Russian Federation	343[b]	923	3 184	1 270	2 208	3 208	2 618
Slovakia	12[a]	52	95	147	- 371	17	15
Slovenia	- 2[a]	6	36	- 2	38	66	104
TFYR Macedonia	..	-	1	1	1	-	1
Ukraine	9	- 5	42	- 4	7	1	23

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Least developed countries [j]	161	28	792	- 327	421	738	277
Oil-exporting countries [k]	1 752	3 710	823	- 1 053	2 168	704	1 206
All developing countries, excluding China	29 664	59 195	72 234	47 622	71 861	103 291	34 796

Source: UNCTAD, FDI/TNC database.

[a] Estimates. For details, see "Definitions and Sources" in annex B.
[b] Annual average from 1993 to 1995.
[c] Annual average from 1990 to 1991.
[d] Annual average from 1990 to 1992.
[e] Annual average from 1992 to 1995.
[f] Annual average from 1990 to 1993.
[g] Annual average from 1991 to 1995.
[h] 1995.
[i] Annual average from 1994 to 1995.
[j] Least developed countries include: Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, Cape Verde, Central African Republic, Chad, Comoros, Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, Lao People's Democratic Republic, Lesotho, Liberia, Madagascar, Malawi, Maldives, Mali, Mauritania, Mozambique, Myanmar, Nepal, Niger, Rwanda, Samoa, Sao Tome and Principe, Senegal, Sierra Leone, Solomon Islands, Somalia, Sudan, Togo, Tuvalu, Uganda, United Republic of Tanzania, Vanuatu, Yemen and Zambia.
[k] Oil-exporting countries include: Cameroon, Algeria, Angola, Bahrain, Brunei Darussalam, Congo, Ecuador, Gabon, Indonesia, Islamic Republic of Iran, Iraq, Kuwait, Libyan Arab Jamahiriya, Nigeria, Oman, Qatar, Saudi Arabia, Syrian Arab Republic, Trinidad and Tobago, United Arab Emirates and Venezuela.

**Annex table B.3. FDI inward stock, by host region and economy,
1980, 1985, 1990, 1995, 2000 and 2001[a]**
(Millions of dollars)

Host region/economy	1980	1985	1990	1995	2000	2001
World	**635 534**	**913 182**	**1 871 594**	**2 911 725**	**6 258 263**	**6 845 723**
Developed economies	**389 715**	**568 670**	**1 382 978**	**2 021 303**	**4 124 261**	**4 504 122**
Western Europe	**232 081**	**285 544**	**780 813**	**1 192 427**	**2 498 247**	**2 776 627**
European Union	**216 840**	**267 618**	**733 303**	**1 115 081**	**2 381 954**	**2 648 651**
Austria	3 163	3 762	9 884	17 532	30 431	34 400[a]
Belgium and Luxembourg	7 306	18 447	58 388	120 211	431 111[b]	482 107[b]
Denmark	4 193	3 613	9 192	23 801	64 397	64 397[a]
Finland	540	1 339	5 132	8 465	24 272	26 267
France	56 096[c]	66 870[c]	100 043	191 434	257 806	310 430[d]
Germany	36 630	36 926	119 618	192 898	449 066	480 899[d]
Greece	4 524	8 309	7 902[e]	13 192[e]	12 499	14 059[d]
Ireland [f]	1 657	2 557	3 410	9 614	65 056	74 831
Italy	8 892	18 976	57 985	63 456	113 046	107 921[h]
Netherlands	19 167	24 921	68 731	116 049	243 430	284 212[d]
Portugal	3 665[g]	4 599[g]	10 571	18 381	28 161[a]	32 671[a]
Spain	5 141	8 939	65 916	109 200	144 508	158 405
Sweden	2 852[h]	4 333	12 636	31 089	82 748	81 275[a]
United Kingdom	63 014	64 028	203 894	199 760	435 422	496 776
Other Western Europe	**15 241**	**17 926**	**47 511**	**77 346**	**116 292**	**127 976**
Gibraltar [f]	33	98	263	432	532	531
Iceland	..[i, j]	71[i]	147	129	491	626
Malta [f]	156	286	465	922	3 020	3 334
Norway	6 577[k]	7 412[k]	12 391	18 800	30 367	33 178[d]
Switzerland	8 506	10 058	34 245	57 063	81 882	90 308
North America	**137 209**	**249 272**	**507 793**	**658 843**	**1 415 854**	**1 522 552**
Canada	54 163	64 657	112 882	123 290	201 600	201 489
United States	83 046	184 615	394 911	535 553	1 214 254	1 321 063
Other developed economies	**20 425**	**33 855**	**94 372**	**170 033**	**210 161**	**204 943**
Australia	13 173	25 049	73 644	104 074	113 320	111 127
Israel	1 619[l]	2 023[l]	2 940[l]	6 269[l]	21 450	23 089
Japan	3 270	4 740	9 850	33 508	50 323	50 319
New Zealand	2 363	2 043	7 938	26 182	25 069	20 408
Developing economies	**245 819**	**344 463**	**484 954**	**849 915**	**2 002 173**	**2 181 249**
Africa	**34 326**	**35 473**	**50 291**	**77 863**	**142 379**	**158 840**
North Africa	**5 887**	**9 272**	**15 655**	**24 751**	**37 379**	**42 436**
Algeria [f]	1 320	1 281	1 355	1 465	3 441	4 637
Egypt [f]	2 260	5 703	11 043	14 102	20 845	21 355
Libyan Arab Jamahiriya [f]	..[j]	..[j]	..[j]	..[j]	..[j]	..[j]
Morocco [f]	189	440	917	3 320	6 141	8 798
Sudan [f]	28	76	54	164	1 396	1 970
Tunisia	6 155[g]	7 196[g]	7 615	10 967	11 451	11 672
Other Africa	**28 439**	**26 201**	**34 637**	**53 112**	**105 000**	**116 405**
Angola [f]	61	675	1 024	2 921	7 977	9 096
Benin [f]	32	34	159	381	625	756
Botswana	698[g]	947[g]	1 309	1 126	1 920	1 734
Burkina Faso [f]	18	24	39	74	149	175
Burundi [f]	7	24	30	34	48	48
Cameroon [f]	330	1 125	1 044	1 062	1 263	1 338
Cape Verde	..	..	4[m]	38[m]	161[m]	162[m]
Central African Republic [f]	50	77	95	76	110	118
Chad [f]	150	223	289	351	430	510
Comoros [n]	2	2	17	19	24	26
Congo [f]	314	484	569	671	856	915
Congo, Democratic Republic of [f]	709	620	546	541	617	649
Côte d'Ivoire [f]	530	699	975	1 624	3 427	3 685
Djibouti [o]	4	4	6	17	34	37
Equatorial Guinea	..	6[p]	25[p]	239[p]	899[p]	987[p]
Eritrea	..	..	..	..	141[q]	176[q]
Ethiopia [f]	110	114	124	165	941	961
Gabon [f]	512	833	1 208	753	194	394
Gambia	127[g]	127[g]	157	185	216	221
Ghana [f]	229	272	315	822	1 257	1 347
Guinea [o]	1	2	69	131	286	324

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**Annex table B.3. FDI inward stock, by host region and economy,
1980, 1985, 1990, 1995, 2000 and 2001[a] (continued)**
(Millions of dollars)

Host region/economy	1980	1985	1990	1995	2000	2001
Guinea-Bissau [r]	-	4	8	20	68	98
Kenya [f]	386	476	668	731	995	1 045
Lesotho [s]	5	25	154	1 342	2 441	2 559
Liberia [f]	868	1 260	2 454	2 419	2 340	2 352
Madagascar [f]	37	48	104	169	338	446
Malawi [f]	100	137	185	250	491	549
Mali [t]	12	33	38	162	477	580
Mauritania [f]	..[j]	39	57	92	108	138
Mauritius [f]	20	37	163	251	681	693
Mozambique [f]	15	17	42	202	1 094	1 350
Namibia	2 651[u]	2 667[u]	2 704[u]	2 594	1 807	1 906[d]
Niger [f]	188	203	284	361	435	448
Nigeria [f]	2 405	4 417	8 072	14 065	20 184	21 289
Rwanda [f]	54	133	213	231	253	262
São Tomé and Principe	..	..	-[m]	-[m]	4[m]	5[m]
Senegal [f]	150	188	258	374	852	977
Seychelles [f]	54	105	204	321	577	611
Sierra Leone [f]	77	66	..[j]	..[j]	17	21
Somalia [f]	29	4	..[j]	..[j]	..[j]	..[j]
South Africa	16 519	9 024	9 221	15 016	43 462	50 115[d]
Swaziland	243[v]	104	336	535	432	338
Togo [f]	176	210	268	307	526	593
Uganda [f]	9	7	4	272	1 255	1 484
United Republic of Tanzania [f]	47	91	93	325	1 180	1 404
Zambia [f]	330	425	987	1 518	2 325	2 397
Zimbabwe [f]	186	187	124	342	1 085	1 090
Latin America and the Caribbean	**50 297**	**80 019**	**117 001**	**201 426**	**613 094**	**692 978**
South America	**29 238**	**42 131**	**66 665**	**111 666**	**377 008**	**417 580**
Argentina	5 344	6 563	9 085[w]	27 991	73 088	76 269[d]
Bolivia	420	592	1 026	1 564	5 052	5 699[d]
Brazil	17 480	25 664	37 143	42 530	196 884[b]	219 342[b]
Chile	886	2 321	10 067	15 547	42 933[x]	48 441[x]
Colombia	1 061	2 231	3 500	6 407	12 299	14 777[y]
Ecuador	719	982	1 626	3 479[z]	6 941[z]	8 271[z]
Guyana [f]	..[j]	..[j]	..[j]	357	664	720
Paraguay	212[aa]	301[aa]	399[aa]	643	1 237	1 389[d]
Peru	898	1 152	1 302	5 541	9 900	11 000[d]
Suriname [f]	..[j]	40	..[j]	..[j]	..[j]	..[j]
Uruguay	727[ab]	794[ab]	1 007[ab]	1 464[ab]	2 088	2 408[d]
Venezuela	1 604	1 548	2 260	6 975	26 943	30 352
Other Latin America and the Caribbean	**21 059**	**37 889**	**50 335**	**89 760**	**236 086**	**275 398**
Anguilla	..	..	11[ac]	68[ac]	227[ac]	255[ac]
Antigua and Barbuda [s]	23	94	292	438	577	631
Aruba	..	..	132[ad]	204[ad]	733[ad]	409[ad]
Bahamas [f]	547	543	586	742	1 587	1 687
Barbados [f]	102	124	170	225	306	323
Belize [f]	12	10	73	153	284	318
Bermuda [f]	5 131	8 053	13 849	23 997	56 746	66 604
Cayman Islands [ae]	222	1 479	1 749	2 745	24 910	27 996
Costa Rica	672	957	1 447	2 733[z]	5 206[z]	5 654[z]
Cuba [f]	-	-	2	40	74	79
Dominica [s]	-	11	71	197	271	285
Dominican Republic	239	265	572	1 707[z]	5 214[z]	6 413[z]
El Salvador	154	181	212	293	1 973	2 241
Grenada [s]	1	13	70	168	344	378
Guatemala [f]	701	1 050	1 734	2 202	3 420	3 875
Haiti [f]	79	112	149	153	215	218
Honduras [f]	92	172	383	652	1 489	1 684
Jamaica [f]	564	522	791	1 568	3 318	4 040
Mexico	8 105[af]	18 802[af]	22 424	41 130	97 170	115 952
Montserrat	..	..	40[ag]	68[ag]	84[ag]	88[ag]
Netherlands Antilles [f]	770	257	408	523	6 589	7 322
Nicaragua [f]	109	109	115	354	1 373	1 505
Panama	2 461[ah]	3 142[ah]	2 198[ah]	3 245	6 744	7 257
Saint Kitts and Nevis [ai]	1	32	160	244	484	567
Saint Lucia [aj]	94	197	319	517	798	849
Saint Vincent and the Grenadines [n]	1	9	48	179	488	523
Trinidad and Tobago	976	1 719	2 093	3 597[z]	6 990[z]	7 825[z]
Virgin Islands [aj] (United Kingdom)	1	39	240	1 622	8 472	10 419

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Annex table B.3. FDI inward stock, by host region and economy, 1980, 1985, 1990, 1995, 2000 and 2001[a] (continued)
(Millions of dollars)

Host region/economy	1980	1985	1990	1995	2000	2001
Asia and the Pacific	**161 196**	**228 970**	**317 663**	**570 625**	**1 246 700**	**1 329 431**
Asia	**160 000**	**227 764**	**315 412**	**567 631**	**1 243 202**	**1 325 735**
West Asia	..[j]	**28 764**	**31 322**	**41 757**	**57 835**	**61 968**
Bahrain	61[c]	399[c]	552	2 403	5 772	5 864[d]
Cyprus [f]	460	789	1 146	1 579	2 062	2 226
Iran, Islamic Republic of [f]	2 962	2 780	2 039	2 297	2 474	2 507
Iraq [f]	..[j]	..[j]	..[j]	..[j]	..[j]	..[j]
Jordan [ak]	155	493	615	627	1 510	1 679
Kuwait [f]	30	33	26	12	527	487
Lebanon [f]	20	34	53	107	1 084	1 334
Oman [f]	483	1 201	1 723	2 210	2 480	2 529
Occupied Palestinian Territory	..	..	..	..	306[al]	357[al]
Qatar [f]	83	93	71	451	1 920	2 158
Saudi Arabia [f]	..[j]	21 828	22 500	22 423	25 963	25 983
Syrian Arab Republic [f]	-	37	374	915	1 699	1 904
Turkey	107	360	1 320	5 103[z]	9 335[z]	12 601[z]
United Arab Emirates [f]	409	482	751	1 770	1 836	1 681
Yemen	195[g]	283[g]	180	1 882	888	683[d]
Central Asia	**..**	**..**	**..**	**3 864**	**16 898**	**20 362**
Armenia	..	..	..	34[l]	574[b]	714[b]
Azerbaijan	..	..	..	177[am]	3 735	3 962
Georgia	..	..	..	32	423[an]	583[n]
Kazakhstan	..	..	..	2 915	9 992	12 647
Kyrgyzstan	..	..	..	144	419	459[d]
Tajikistan	..	..	..	40[ao]	144[ao]	166[ao]
Turkmenistan	..	..	..	415[ap]	913[ap]	1 063[ap]
Uzbekistan	..	..	..	106[ao]	697[ao]	768[o]
South, East and South-East Asia	**161 170**	**199 000**	**284 090**	**522 011**	**1 168 470**	**1 243 405**
Afghanistan [f]	11	11	12	12	17	19
Bangladesh	63	112	147[aq]	180[aq]	980[aq]	1 059[aq]
Bhutan	..	..	2[ac]	2[ac]	3[ac]	4[c]
Brunei Darussalam [f]	19	28	23	631	3 756	3 999
Cambodia	38[ar]	38[ar]	38[ar]	356	1 551	1 664[d]
China	6 251[l]	10 499[l]	24 762[l]	137 435[l]	348 346	395 192[d]
Hong Kong, China	124 286[as]	129 750[as]	148 183[as]	174 063[as]	429 036	451 870[d]
India	1 177	1 075	1 668[aq]	5 652[aq]	18 916[aq]	22 319[aq]
Indonesia	10 274	24 971	38 883	50 601	60 638[b]	57 361[b]
Korea, Democratic People's Republic of	..	..	572[m]	716[m]	1 046[m]	1 053[m]
Korea, Republic of	1 327	2 160	5 864	9 991	62 786	47 228
Lao People's Democratic Republic [f]	2	1	13	205	550	574
Macao, China [t]	2	10	10	4	..[j]	..[j]
Malaysia	5 169	7 388	10 318	28 732[at]	52 748[at]	53 302[ar]
Maldives [o]	5	3	25	61	118	131
Mongolia	..	..	-[ag]	38[ag]	182[ag]	245[ag]
Myanmar	746[au]	746[au]	913[au]	1 831[au]	3 191	3 314[d]
Nepal	1[av]	2[av]	12[av]	39[av]	97[av]	116
Pakistan	691	1 079	1 928	5 552	6 896	6 608
Philippines	1 281	2 601	3 268	6 086	12 440[b]	14 232[b]
Singapore	6 203	13 016	28 565	59 582	95 714[b]	104 323[b]
Sri Lanka	231	517	681[aq]	1 297[aq]	2 448[aq]	2 620[aq]
Taiwan Province of China	2 405	2 930	9 735[aq]	15 736[aq]	27 924[aq]	32 033[aq]
Thailand	981	1 999	8 209	17 452	24 468	28 227[d]
Viet Nam [f]	9	64	260	5 760	14 623	15 923
The Pacific	**1 196**	**1 207**	**2 250**	**2 994**	**3 498**	**3 696**
Fiji	358	393	402[aw]	805[aw]	754[aw]	751[aw]
Kiribati	..-	1[ax]	-[ax]	1[ax]	5[ax]	5[ax]
New Caledonia [ak]	28	35	76	110	129	132
Papua New Guinea	748	683	1 582	1 667	2 041[ay]	2 219[ay]
Samoa [f]	1	2	9	29	53	55
Solomon Islands [t]	28	32	70	126	126	120
Tonga	..	-[az]	1[az]	7[az]	18[az]	20[z]
Tuvalu	..	..	..	-[ba]	1[ba]	1[ba]
Vanuatu [t]	33	62	110	249	372	393

Annex table B.3. FDI inward stock, by host region and economy,
1980, 1985, 1990, 1995, 2000 and 2001[a] (concluded)
(Millions of dollars)

Host region/economy	1980	1985	1990	1995	2000	2001
Central and Eastern Europe	..	**49**	**3 661**	**40 508**	**131 829**	**160 352**
Albania	..	..	..	211[ao]	578[ao]	759[ao]
Belarus	..	..	..	50[ao]	1 243[ao]	1 412[ao]
Bosnia and Herzegovina	..	..	..	21[as]	355[an]	519[an]
Bulgaria	..	..	108[as]	445[as]	3 162	3 850[d]
Croatia	..	..	..	473[bb]	5 155[b]	6 597[b]
Czech Republic	..	..	1 363[bc]	7 350	21 644	26 764
Estonia	..	..	..	674[bb]	2 645	3 155
Hungary	..	49[g]	569	11 919	19 804	23 562
Latvia	..	..	..	615	2 081	2 216
Lithuania	..	..	..	352	2 334	2 665
Moldova, Republic of	..	..	..	93	459	609[d]
Poland	..	..	109	7 843	33 603	42 433[d]
Romania	..	..	766	1 150	6 517	7 636
Russian Federation	..	..	..	5 465	19 255[b]	21 795[b]
Slovakia	..	..	81	810	4 634	6 109[d]
Slovenia	..	..	665[bd]	1 763	2 809	3 250[d]
TFYR Macedonia	..	..	..	33[ba]	389[ba]	919[ba]
Ukraine	..	..	..	910	3 843[b]	4 615[b]
Yugoslavia	..	..	..	329[ao]	1 319[ao]	1 484[ao]
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Least developed countries [be]	**4 590**	**6 303**	**9 457**	**18 487**	**36 423**	**40 230**
Oil-exporting countries [bf]	**12 032**	**58 318**	**79 792**	**112 351**	**174 674**	**181 231**
All developing countries, excluding China	**239 568**	**333 964**	**460 193**	**712 480**	**1 653 827**	**1 786 057**

Source: UNCTAD, FDI/TNC database.

[a] Estimates. For details, see "Definitions and Sources" in annex B. For the countries for which the stock data are estimated by either cumulating FDI flows or adding or subtracting flows to FDI stock in a particular year, notes are given below.
[b] Stock data after 1999 are estimated by adding flows.
[c] Stock data prior to 1989 are estimated by subtracting flows.
[d] Stock data for 2001 are estimated by adding flows.
[e] Stock data from 1990 to 1998 are estimated by subtracting flows from the stock of 1999.
[f] Stock data are estimated by accumulating flows since 1970.
[g] Stock data prior to 1990 are estimated by subtracting flows.
[h] Stock data prior to 1982 are estimated by subtracting flows.
[i] Stock data prior to 1988 are estimated by subtracting flows.
[j] Negative stock value. However, this value is included in the regional and global total.
[k] Stock data prior to 1987 are estimated by subtracting flows.
[l] Stock data prior to 1997 are estimated by subtracting flows.
[m] Stock data are estimated by accumulating flows since 1987.
[n] Stock data are estimated by accumulating flows since 1978.
[o] Stock data are estimated by accumulating flows since 1973.
[p] Stock data are estimated by accumulating flows since 1982.
[q] Stock data are estimated by accumulating flows since 1997.
[r] Stock data are estimated by accumulating flows since 1975.
[s] Stock data are estimated by accumulating flows since 1977.
[t] Stock data are estimated by accumulating flows since 1971.
[u] Stock data prior to 1991 are estimated by subtracting flows.
[v] Stock data prior to 1981 are estimated by subtracting flows.
[w] Stock data for 1990 are estimated by subtracting flows from the stock of 1991.
[x] Stock data are estimated by adding flows to the stock of 1995.
[y] Stock for 2001 represent the value until June of 2001.
[z] Stock data after 1990 are estimated by adding flows.
[aa] Stock data up to 1993 are estimated by accumulating flows since 1970.
[ab] Stock data up to 1999 are estimated by accumulating flows since 1970.
[ac] Stock data are estimated by accumulating flows since 1990.
[ad] Stock data are estimated by accumulating flows since 1989.
[ae] Stock data are estimated by accumulating flows since 1974.
[af] Stock data up to 1989 are estimated by accumulating flows since 1970.
[ag] Stock data are estimated by accumulating flows since 1986.
[ah] Stock data prior to 1995 are estimated by subtracting flows.
[ai] Stock data are estimated by accumulating flows since 1980.
[aj] Stock data are estimated by accumulating flows since 1976.
[ak] Stock data are estimated by accumulating flows since 1972.

al Stock data are estimated by accumulating flows since 1996.
am Stock data up to 1998 are estimated by accumulating flows since 1994.
an Stock data after 1998 are estimated by adding flows.
ao Stock data are estimated by accumulating flows since 1992.
ap Stock data are estimated by accumulating flows since 1993.
aq Stock data after 1988 are estimated by adding flows.
ar Stock data prior to 1994 are estimated by subtracting flows.
as Stock data prior to 1998 are estimated by subtracting flows.
at Stock data after 1994 are estimated by adding flows.
au Stock data prior to 1999 are estimated by subtracting flows.
av Stock data up to 2000 are estimated by accumulating flows since 1972.
aw Stock data after 1989 are estimated by adding flows.
ax Stock data are estimated by accumulating flows since 1983.
ay Stock data after 1997 are estimated by adding flows.
az Stock data are estimated by accumulating flows since 1984.
ba Stock data are estimated by accumulating flows since 1994.
bb Stock data prior to 1996 are estimated by subtracting flows.
bc Stock data prior to 1992 are estimated by subtracting flows.
bd Stock data prior to 1993 are estimated by subtracting flows.
be Least developed countries include: Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, Cape Verde, Central African Republic, Chad, Comoros, Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, Lao People's Democratic Republic, Lesotho, Liberia, Madagascar, Malawi, Maldives, Mali, Mauritania, Mozambique, Myanmar, Nepal, Niger, Rwanda, Samoa, Sao Tome and Principe, Senegal, Sierra Leone, Solomon Islands, Somalia, Sudan, Togo, Tuvalu, Uganda, United Republic of Tanzania, Vanuatu, Yemen and Zambia.
bf Oil-exporting countries include: Cameroon, Algeria, Angola, Bahrain, Brunei Darussalam, Congo, Ecuador, Gabon, Indonesia, Islamic Republic of Iran, Iraq, Kuwait, Libyan Arab Jamahiriya, Nigeria, Oman, Qatar, Saudi Arabia, Syrian Arab Republic, Trinidad and Tobago, United Arab Emirates and Venezuela.

Note: For data on FDI stock which are calculated as an accumulation of flows, price changes are not taken into account.

Annex table B.4. FDI outward stock, by home region and economy, 1980, 1985, 1990, 1995, 2000 and 2001[a]
(Millions of dollars)

Home region/economy	1980	1985	1990	1995	2000	2001
World	**521 486**	**691 745**	**1 721 462**	**2 854 853**	**6 086 428**	**6 552 011**
Developed economies	**499 428**	**656 276**	**1 630 443**	**2 577 550**	**5 316 292**	**5 751 947**
Western Europe	**237 694**	**321 972**	**875 571**	**1 457 253**	**3 421 542**	**3 721 228**
European Union	**215 582**	**295 727**	**798 525**	**1 292 043**	**3 148 830**	**3 440 890**
Austria	530	1 343	4 273	11 702	24 820	26 300[a]
Belgium and Luxembourg	6 037	9 551	40 636	83 325	381 737[b]	449 044[b]
Denmark	2 065	1 801	7 342	24 703	64 048	64 048[a]
Finland	737	1 829	11 227	14 993	52 109	56 055
France	24 281[c]	37 753[c]	120 179	204 431	432 662	515 475[d]
Germany	43 127	59 909	148 456	258 142	470 578	513 835[d]
Greece	2 923[e]	2 923[e]	2 948[e]	3 004[e]	5 744	5 137[d]
Ireland	..	-	2 736[f]	4 624[f]	18 504[f]	23 900[f]
Italy	7 319	16 600	57 261	97 042	180 276	182 375
Netherlands	42 116	47 898	106 899	172 672	309 485	328 422[a]
Portugal	512[g]	583[g]	900	3 173	17 781	24 881[a]
Spain	1 931	4 455	15 652	36 243	165 873	185 954
Sweden	3 572[h]	10 768	50 720	73 143	123 125	122 615[a]
United Kingdom	80 434	100 313	229 294	304 847	902 087	942 848
Other Western Europe	**22 112**	**26 245**	**77 047**	**165 210**	**272 712**	**280 338**
Gibraltar	..	..	..	..	..	..
Iceland	59[i]	59[i]	75	179	663	922
Malta	..	..	..	32	214[b]	221[b]
Norway	561	1 093	10 884	22 519	44 174[j]	42 769[j]
Switzerland	21 491[k]	25 093	66 087	142 479	227 660[h]	236 426[h]
North America	**239 158**	**281 512**	**515 358**	**817 224**	**1 520 417**	**1 626 165**
Canada	23 783	43 143	84 837	118 209	226 986	244 491
United States	215 375	238 369	430 521	699 015	1 293 431	1 381 674
Other developed economies	**22 577**	**52 792**	**239 514**	**303 073**	**374 333**	**404 553**
Australia	2 260	6 653	30 507	53 009	81 009	88 013
Israel	179[g]	661[g]	1 169	3 937	9 395	9 789
Japan	19 610	43 970	201 440	238 452	278 445	300 115
New Zealand	529[l]	1 508[l]	6 398[l]	7 675	5 484	6 637
Developing economies	**22 058**	**35 469**	**90 404**	**270 925**	**751 632**	**776 065**
Africa	**6 878**	**10 961**	**23 202**	**35 606**	**47 249**	**44 583**
North Africa	**466**	**873**	**1 475**	**1 572**	**3 074**	**3 271**
Algeria [m]	98	156	183	266	343	352
Egypt [n]	39	91	163	391	732	744
Libyan Arab Jamahiriya	162	287	624	279	1 230	1 314
Morocco	155	333	490	607	736	828
Tunisia	12[g]	7[g]	15	30	33	33
Other Africa	**6 412**	**10 088**	**21 727**	**34 033**	**44 175**	**41 312**
Benin [p]	-	2	2	2	92	114
Botswana	438[g]	439[g]	447	650	543	479
Burkina Faso [q]	3	3	4	13	24	28
Burundi	..	..	-[r]	1[r]	2[r]	2[r]
Cameroon [s]	23	53	150	227	255	257
Cape Verde	..	..	1[t]	5[t]	5[t]	5[t]
Central African Republic [u]	-	1	17	40	40	41
Chad [v]	1	1	48	92	114	119
Comoros	..	..	1[w]	2[w]	2[w]	2[w]
Côte d'Ivoire	..	..	31[w]	517[w]	697[w]	735[w]
Equatorial Guinea	..	..	-[r]	-[r]	4[r]	4[r]
Ethiopia	..	..	..	..	435[x]	504[x]
Gabon [q]	78	103	164	256	429	479
Gambia	..	..	22	36	44	42
Ghana	..	..	..	..	359[y]	412[y]
Guinea	..	..	..	..	8[y]	9[y]
Kenya [u]	18	60	99	117	231	308
Lesotho	..	..	-[t]	-[t]	-[t]	-[t]
Liberia [z]	48	361	453	1 113	1 524	1 586[f]
Madagascar	..	..	..	3[aa]	3[aa]	4[aa]
Malawi	..	..	..	..	15[j]	18[j]
Mali [u]	22	22	22	23	136	171
Mauritania	..	..	3[ab]	3[ab]	3[ab]	3[ab]
Mauritius	..	-[ac]	2[ac]	94[ac]	133[ac]	135[ac]
Mozambique	..	..	..	-[aa]	1[aa]	1[aa]
Namibia	..	..	2 342[g]	2 693	1 213	1 212[d]
Niger [q]	2	8	54	109	156	163
Nigeria [v]	9	..[ad]	2 586	3 975	4 358	4 452

**Annex table B.4. FDI outward stock, by home region and economy,
1980, 1985, 1990, 1995, 2000 and 2001[a] (continued)**
(Millions of dollars)

Home region/economy	1980	1985	1990	1995	2000	2001
Rwanda	..	..	-[w]	..[w, ad]	3[w]	4 [w]
Senegal [o]	7	43	49	96	141	155
Seychelles [ae]	14	44	61	94	136	147
South Africa	5 722	8 963	15 027	23 305	32 333	28 999 [d]
Swaziland	19[af]	9	38	136	90	52
Togo [ag]	10	10	16	44	140	167
Uganda	..	..	..	255[ah]	265[ah]	259[ah]
Zimbabwe	..	10[ai]	88[ai]	137[ai]	241[ai]	245[ai]
Latin America and the Caribbean	**8 974**	**12 809**	**19 389**	**49 388**	**120 859**	**128 191**
South America	**6 983**	**8 072**	**11 560**	**25 147**	**62 284**	**64 186**
Argentina	5 997[aj]	5 945[aj]	6 106[aj]	10 696	20 859	20 736[d]
Bolivia	1[ak]	1[ak]	9	18	30	36 [d]
Brazil	652	1 361	2 397	5 826[al]	13 299[al]	11 041[al]
Chile	42	102	178	2 809[am]	18 293[am]	22 084[am]
Colombia	136	301	402	1 027	2 989	3 047[an]
Ecuador	..	..	..	73[ao]	275[ao]	249[ao]
Guyana	..	..	..	2[ap]	-[ap]	-[ap]
Paraguay	113[aq]	128[aq]	137[aq]	179	214	220 [d]
Peru	3	38	63	567	505	600 [d]
Uruguay	16[ar]	32[as]	30[as]	32[as]	54	73 [d]
Venezuela	23	165	2 239	3 918	5 766	6 099
Other Latin America and the Caribbean	**1 991**	**4 736**	**7 828**	**24 240**	**58 575**	**64 006**
Aruba	..	..	..	10[ap]	14[ap]	27[ap]
Bahamas [at]	285	154	614	1 286	1 385	1 385 [d]
Barbados [m]	5	12	23	32	40	41
Belize	..	..	..	12[aa]	47[aa]	55[aa]
Bermuda [z]	727	1 691	1 550	2 626	14 942	12 133 [d]
Cayman Islands [au]	5	85	694	1 984	16 247	19 059
Costa Rica [v]	7	27	44	67	91	96
Dominica	..	..	..	..	-[x]	- [x]
Dominican Republic	..	..	..	38[ap]	65[ap]	68[ap]
El Salvador	..	..	54[av]	53[av]	74	64
Grenada	..	..	-[w]	-[w]	1[w]	1 [w]
Guatemala	..	..	..	..	51[y]	65 [y]
Haiti	..	..	..	1[ao]	4[ao]	4 [o]
Jamaica [m]	5	5	42	308	709	798
Mexico	136[aw]	533[aw]	575[aw]	4 132	8 284[j]	11 992 [j]
Netherlands Antilles [ae]	9	10	21	23	..[ad]	..[ad]
Nicaragua	..	..	..	-[ap]	8[ap]	13[ap]
Panama [z]	811	2 204	4 188	4 939	4 004	4 939 [d]
Saint Kitts and Nevis	..	..	-[w]	-[w]	-[w]	- [w]
Saint Lucia	..	..	-[w]	1[w]	1[w]	- [w]
Saint Vincent and the Grenadines	..	..	1[ax]	1[ax]	1[ax]	1[ax]
Trinidad and Tobago	..	15[ai]	22[ai]	24[ai]	297[ai]	447[ai]
Virgin Islands (United Kingdom)	..	..	..	8 704[ap]	15 828[ap]	16 509[ap]
Asia and the Pacific	**6 206**	**11 699**	**47 813**	**185 931**	**583 524**	**603 290**
Asia	**6 193**	**11 662**	**47 711**	**185 417**	**582 681**	**602 385**
West Asia	**1 447**	**2 143**	**6 452**	**5 955**	**10 172**	**11 467**
Bahrain	600[ay]	599[ay]	719	1 044	1 740	1 956 [d]
Cyprus	..	-[ac]	9[ac]	78[ac]	563[ac]	781[ac]
Iran, Islamic Republic of	..	..	..	..[ad, ah]	1 331[ah]	1 737[ah]
Jordan [o]	35	38	28	..[ad]	..[ad]	..[ad]
Kuwait [u]	568	930	3 662	2 804	1 428	1 751
Lebanon	..	42[az]	49[az]	94[az]	110[az]	107[az]
Oman	..	2[ac]	7[ac]	23[ac]	23[ac]	22[ac]
Qatar	..	..	..	30[ao]	163[ao]	188[ao]
Saudi Arabia [ba]	239	508	1 873	1 621	2 064	1 741
Turkey	..	..	..	268[aa]	2 511[aa]	3 008[aa]
United Arab Emirates [bb]	5	19	99	98	323[bc]	256[bc]
Yemen	..	4[az]	5[az]	5[az]	5[az]	5[az]
Central Asia	**..**	**..**	**..**	**-**	**553**	**705**
Armenia	..	..	..	..	33[bd]	44[bd]
Azerbaijan	..	..	..	..	474[bd]	632[bd]
Kazakhstan	..	..	..	-	13	..[ad]
Kyrgyzstan	..	..	..	..	33[bd]	44[bd]
South, East and South-East Asia	**4 746**	**9 519**	**41 259**	**179 462**	**571 956**	**590 213**
Bangladesh	..	..	6[ab]	9[ab]	100[ab]	125[ab]
Brunei Darussalam	..	..	..	71[aa]	148[aa]	156[aa]
Cambodia	..	..	..	2[ap]	2[ap]	2[ap]
China	..	131	2 489[be]	15 802[be]	25 804[be]	27 579[be]

**Annex table B.4. FDI outward stock, by home region and economy,
1980, 1985, 1990, 1995, 2000 and 2001[a] (concluded)**
(Millions of dollars)

Home region/economy	1980	1985	1990	1995	2000	2001
Hong Kong, China	148[bf]	2 344[bf]	11 920[bf]	78 833[bf]	365 803	374 780 [d]
India [bg]	235	250	281	495	1 311	2 068
Indonesia	..	55[bh]	77[bh]	1 295	2 339[b]	2 464[b]
Korea, Republic of	127	461	2 301	7 787	50 552	40 825
Lao People's Democratic Republic	..	..	..	1[aa]	1[aa]	1[aa]
Malaysia	197	1 374	2 671	11 143	18 688[bd]	18 955[bd]
Maldives	..	..	-[w]	-[w]	-[w]	-[w]
Mongolia	..	..	..	-[ao]	-[ao]	-[ao]
Myanmar	..	..	..	-[bi]	-[bi]	-[bi]
Pakistan	40	127	250	403	521	542
Philippines	171	171	155	1 220	1 965[b]	2 126[b]
Singapore	3 718[g]	4 387[g]	7 808	35 050	53 009	63 225 [d]
Sri Lanka	..	1[ac]	8[ac]	35[ac]	86[ac]	86[ac]
Taiwan Province of China	97	204	12 888[bj]	25 144[bj]	49 187[bj]	54 667 [bj]
Thailand	13	14	404	2 173	2 439	2 610 [d]
The Pacific	**13**	**37**	**101**	**514**	**843**	**905**
Fiji [au]	2[au]	15[au]	87[au]	132[au]	293[au]	334[au]
Kiribati	..	..	..	-[bi]	-[bi]	-[bi]
Papua New Guinea	10	22	15[be]	383[be]	549[be]	570[be]
Solomon Islands	..	..	-[w]	-[w]	-[w]	- [w]
Tonga	..	..	-[ab]	-[ab]	1[ab]	1[ab]
Central and Eastern Europe	**..**	**..**	**616**	**6 378**	**18 505**	**23 999**
Albania	..	..	..	48[ah]	82[ah]	82[ah]
Belarus	..	..	..	8[ap]	17[ap]	18[ap]
Bosnia and Herzegovina	..	..	..	13[ap]	40[ap]	40[ap]
Bulgaria	..	..	..	105[bk]	86	96 [d]
Croatia	..	..	..	703	734	853[d]
Czech Republic	..	..	..	345	738	832
Estonia	..	..	..	68[av]	259	429
Hungary	..	..	197	489	2 068	4 377
Latvia	..	..	..	231	241	248[d]
Lithuania	..	..	..	1	29	48
Moldova, Republic of	..	..	..	18	19	19 [d]
Poland	..	..	95	539	1 025	1 039 [d]
Romania	..	..	66	121	101	93 [d]
Russian Federation	..	..	..	3 015	11 794[b]	14 412 [b]
Slovakia	..	..	..	87	367	382 [d]
Slovenia	..	..	258	490	794	898 [d]
TFYR Macedonia	..	..	..	..	4[y]	5 [y]
Ukraine	..	..	..	97	106[b]	129 [b]

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Least developed countries [bl]	**92**	**456**	**703**	**1 851**	**3 268**	**3 538**
Oil-exporting countries [bm]	**1 782**	**2 794**	**12 256**	**15 733**	**22 258**	**23 663**
All developing countries minus China	**22 058**	**35 338**	**87 915**	**255 123**	**725 828**	**748 486**

Source: UNCTAD, FDI/TNC database.

[a]Estimates. For details, see "Definitions and Sources" in annex B. For the countries for which the stock data are estimated by either cumulating FDI flows or adding or subtracting flows to FDI stock in a particular year, notes are given below.
[b]Stock data after 1999 are estimated by adding flows.
[c]Stock data prior to 1987 are estimated by subtracting flows.
[d]   Stock data for 2001 are estimated by adding flows.
[e]   Stock data prior to 1999 are estimated by subtracting flows.
[f]   Stock data are estimated by accumulating flows since 1984.
[g]   Stock data prior to 1990 are estimated by subtracting flows.
[h]   Stock data prior to 1982 are estimated by subtracting flows.
[i]   Stock data prior to 1988 are estimated by subtracting flows.
[j]   Stock data after 1998 are estimated by adding flows.
[k]   Stock data prior to 1984 are estimated by subtracting flows.
[l]   Stock data prior to 1992 are estimated by subtracting flows.
[m]   Stock data are estimated by accumulating flows since 1970.
[n]   Stock data are estimated by accumulating flows since 1977.
[o]   Stock data are estimated by accumulating flows since 1972.
[p]   Stock data are estimated by accumulating flows since 1979.
[q]   Stock data are estimated by accumulating flows since 1974.
[r]   Stock data are estimated by accumulating flows since 1989.
[s]   Stock data are estimated by accumulating flows since 1973.
[t]   Stock data are estimated by accumulating flows since 1988.
[u]   Stock data are estimated by accumulating flows since 1975.
[v]   Stock data are estimated by accumulating flows since 1978.
[w]   Stock data are estimated by accumulating flows since 1990.
[x]   Stock data are estimated by accumulating flows since 1997.
[y]   Stock data are estimated by accumulating flows since 1996.
[z]   Stock data are estimated by using the inward stock of the United States from 1980 to 2000 as a proxy.

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aa Stock data are estimated by accumulating flows since 1991.
ab Stock data are estimated by accumulating flows since 1986.
ac Stock data are estimated by accumulating flows since 1985.
ad Negative stock value. However, this value is included in the regional and global total.
ae Stock data are estimated by accumulating flows since 1976.
af Stock data prior to 1981 are estimated by subtracting flows.
ag Stock data are estimated by accumulating flows since 1971.
ah Stock data are estimated by accumulating flows since 1992.
ai Stock data are estimated by accumulating flows since 1983.
aj Stock data prior to 1991 are estimated by subtracting flows.
ak Stock data from 1980 to 1985 are estimated by accumulating flows since 1980.
al Stock data after 1990 are estimated by adding flows.
am Stock data after 1992 are estimated by adding flows.
an Stock for 2001 represent the value until June of 2001.
ao Stock data are estimated by accumulating flows since 1995.
ap Stock data are estimated by accumulating flows since 1993.
aq Stock data prior to 1995 are estimated by subtracting flows.
ar Stock data prior to 1983 are estimated by subtracting flows.
as Stock data from 1988 to 1999 are estimated by adding flows to the stock of 1987.
at Stock data are estimated by using the inward stock of the United States from 1980 to 2000 as a proxy. Stock data from 1988 to 1991 are estimated by subtracting flows from the stock of 1992
au Stock data are estimated by accumulating flows since 1980.
av Stock data prior to 1996 are estimated by subtracting flows.
aw Stock data are estimated by using the inward stock of the United States from 1980 to 1991 as a proxy.
ax Stock data are estimated by accumulating flows since 1987.
ay Stock data prior to 1989 are estimated by subtracting flows.
az Stock data are estimated by accumulating flows since 1982.
ba Stock data are estimated by using the inward stock of Canada and the United States from 1980 to 1991 and France, Netherlands and the United States from 1995 to 1997as a proxy.
bb Stock data are estimated by using the inward stock of the United States from 1980 to 1997 as a proxy.
bc Stock data after 1997 are estimated by adding flows.
bd Stock data are estimated by accumulating flows since 1998.
be Stock data after 1989 are estimated by adding flows.
bf Stock data are estimated by using the inward stock of the United States from 1980 to 1983, and by using the inward stock of the United States and China as a proxy from 1984 to 1997 as a proxy.
bg Only the stock data for 1992 is available. Stock data prior to 1992 are estimated by subtracting flows, whereas stock data after 1992 are estimated by adding flows.
bh Stock data are estimated by using the inward stock of Germany and the United States from 1984 to 1992 as a proxy.
bi Stock data are estimated by accumulating flows since 1994.
bj Stock data after 1988 are estimated by adding flows.
bk Stock data prior to 1998 are estimated by subtracting flows.
bl Least developed countries include: Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, Cape Verde, Central African Republic, Chad, Comoros, Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, Lao People's Democratic Republic, Lesotho, Liberia, Madagascar, Malawi, Maldives, Mali, Mauritania, Mozambique, Myanmar, Nepal, Niger, Rwanda, Samoa, Sao Tome and Principe, Senegal, Sierra Leone, Solomon Islands, Somalia, Sudan, Togo, Tuvalu, Uganda, United Republic of Tanzania, Vanuatu, Yemen and Zambia.
bm Oil-exporting countries include: Cameroon, Algeria, Angola, Bahrain, Brunei Darussalam, Congo, Ecuador, Gabon, Indonesia, Islamic Republic of Iran, Iraq, Kuwait, Libyan Arab Jamahiriya, Nigeria, Oman, Qatar, Saudi Arabia, Syrian Arab Republic, Trinidad and Tobago, United Arab Emirates and Venezuela.

Note: For data on FDI stock which are calculated as an accumulation of flows, price changes are not taken into account.

Annex table B.5. Inward and outward FDI flows as a percentage of gross fixed capital formation, by region and economy, 1990-2000

(Per cent)

Region/economy	1990-1995 (Annual average)	1996	1997	1998	1999	2000
World						
inward	**4.1**	**5.9**	**7.4**	**11.0**	**16.5**	**22.0**
outward	**4.8**	**6.2**	**7.4**	**11.0**	**15.9**	**20.6**
Developed economies						
inward	**3.6**	**4.8**	**6.0**	**10.7**	**17.4**	**25.0**
outward	**5.5**	**7.3**	**8.9**	**13.9**	**20.1**	**25.9**
Western Europe						
inward	**5.4**	**6.5**	**8.3**	**15.6**	**28.2**	**49.0**
outward	**7.9**	**11.4**	**14.6**	**24.7**	**41.9**	**59.9**
European Union						
inward	**5.5**	**6.5**	**8.1**	**15.7**	**28.5**	**50.1**
outward	**7.7**	**10.8**	**14.0**	**24.8**	**41.8**	**60.0**
Austria						
inward	2.9	8.2	5.5	9.1	6.1	19.8
outward	3.4	3.6	4.1	5.5	6.8	12.8
Belgium and Luxembourg						
inward	19.7	24.5	22.3	40.7	233.2	468.8
outward	13.7	14.0	13.5	51.7	213.4	462.0
Denmark						
inward	8.7	2.3	8.4	21.5	44.4	90.8
outward	8.6	7.4	12.6	12.4	45.1	68.5
Finland						
inward	4.1	5.1	9.6	50.3	19.0	37.7
outward	8.0	16.6	24.0	77.3	27.2	102.6
France						
inward	6.0	7.6	9.2	11.6	17.2	16.9
outward	8.8	10.6	14.1	18.2	44.1	69.1
Germany						
inward	0.9	1.3	2.7	5.4	12.4	48.7
outward	5.3	9.8	9.2	19.6	24.8	12.4
Greece						
inward	5.3	4.4	4.1	0.3	2.1	4.2
outward	0.1	-0.1	0.6	1.0	2.0	8.2
Ireland						
inward	12.8	19.2	17.0	58.4	67.0	107.1
outward	4.0	5.3	6.2	20.7	19.2	17.6
Italy						
inward	1.8	1.6	1.7	1.2	3.1	6.3
outward	3.0	3.8	4.9	5.6	3.0	5.8
Netherlands						
inward	12.4	21.3	15.3	48.9	46.6	63.8
outward	22.4	41.1	33.6	48.5	65.1	86.7
Portugal						
inward	8.4	5.7	9.6	11.3	4.0	21.9
outward	1.8	3.0	7.4	13.9	10.2	25.9
Spain						
inward	9.5	5.6	7.0	8.9	10.9	26.3
outward	3.2	4.6	11.5	14.3	29.0	38.3
Sweden						
inward	15.2	12.3	31.1	52.0	153.8	60.2
outward	17.1	11.3	35.8	64.8	55.4	104.5
United Kingdom						
inward	9.7	12.5	15.1	30.2	34.9	46.4
outward	14.7	17.4	28.0	49.9	80.0	101.0
Other Western Europe						
inward	**3.6**	**5.8**	**11.2**	**13.8**	**21.6**	**27.8**
outward	**11.4**	**22.1**	**25.0**	**22.9**	**43.4**	**59.8**
Iceland						
inward	0.2	5.7	9.6	7.6	3.5	8.0
outward	1.4	4.3	3.5	3.8	5.7	18.2
Malta						
inward	10.2	28.9	9.6	31.1	96.5	69.5
outward	0.2[a]	0.6	2.0	1.7	5.3	3.1
Norway						
inward	2.9	6.2	8.4	9.1	19.7	20.5
outward	5.0	14.7	11.8	6.0	15.5	23.8
Switzerland						
inward	3.9	5.2	13.2	17.1	22.3	32.3
outward	14.5	27.0	35.3	35.8	63.4	84.5
North America						
inward	**4.5**	**7.1**	**7.9**	**12.5**	**18.0**	**19.8**
outward	**6.1**	**7.4**	**8.2**	**10.4**	**11.1**	**11.4**

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Annex table B.5. Inward and outward FDI flows as a percentage of gross fixed capital formation, by region and economy, 1990-2000 (continued)

(Per cent)

Region/economy	1990-1995 (Annual average)	1996	1997	1998	1999	2000
Canada						
inward	5.9	9.2	9.7	19.4	18.7	47.3
outward	6.6	12.5	19.3	29.3	12.0	33.7
United States						
inward	4.3	7.0	7.8	11.9	18.0	17.5
outward	6.1	7.0	7.2	8.9	11.1	9.6
Other developed economies						
inward	**0.8**	**0.7**	**1.1**	**1.0**	**1.7**	**2.1**
outward	**2.3**	**2.0**	**2.5**	**2.5**	**1.6**	**3.0**
Australia						
inward	9.0	6.7	8.1	7.1	6.2	14.1
outward	3.7	7.8	6.8	3.9	-3.2	6.0
Israel						
inward	3.4	5.6	6.7	7.8	12.9	19.3
outward	3.3	4.2	3.3	4.7	3.6	12.3
Japan						
inward	0.1	-	0.3	0.3	1.1	0.7
outward	2.2	1.8	2.1	2.3	1.9	2.6
New Zealand						
inward	25.2	15.4	19.2	11.1	12.8	33.2
outward	7.7	-10.6	-0.3	8.7	7.3	10.0
Developing economies						
inward	**5.7**	**9.1**	**11.1**	**11.4**	**13.4**	**13.4**
outward	**2.5**	**3.8**	**4.0**	**3.1**	**3.5**	**5.8**
Africa						
inward	**4.9**	**5.9**	**10.0**	**8.3**	**11.9**	**8.1**
outward	**2.3**	**1.6**	**3.2**	**2.7**	**2.3**	**0.8**
North Africa						
inward	**3.9**	**3.5**	**5.9**	**5.6**	**9.6**	**5.5**
outward	**0.1**	**0.3**	**1.1**	**0.7**	**0.7**	**0.4**
Algeria						
inward	0.2	2.3	2.4	4.0	4.1	3.8
outward	0.1	-	0.1	-	0.4	0.2
Egypt						
inward	5.8	5.1	6.1	6.1	15.4	5.8
outward	0.4	-	1.1	0.2	0.4	0.2
Libyan Arab Jamahiriya						
inward	1.1	-2.7	-1.5	-2.8	-2.5	-2.8
outward	-0.7	1.3	5.3	5.5	4.4	1.9
Morocco						
inward	6.7	5.0	15.6	4.2	10.2	2.5
outward	0.3	0.4	0.1	0.3	0.1	0.7
Sudan						
inward	0.6	-	6.8	22.6	25.6	23.8
outward	..	..	..	..	..	..
Tunisia						
inward	10.1	7.7	7.8	13.6	6.9	15.2
outward	0.1	0.1	0.2	-	-	-
Other Africa						
inward	**5.8**	**7.7**	**12.8**	**10.6**	**14.1**	**10.5**
outward	**4.4**	**2.6**	**4.7**	**4.3**	**3.8**	**1.2**
Angola						
inward	39.3	9.0	21.1	71.8	104.5	35.2
outward	-	-	-	-	-	-
Benin						
inward	17.6	6.6	6.8	8.5	13.9	22.4
outward	..	3.1	3.2	0.5	5.3	9.4
Botswana						
inward	-2.4	6.4	8.6	7.8	2.7	4.4
outward	1.3	-0.1	0.4	0.3	0.1	0.2
Burkina Faso						
inward	1.3	2.6	1.9	1.3	2.0	3.9
outward	0.3	0.1	0.2	0.7	0.7	-
Burundi						
inward	0.6	-	-	3.7	0.3	21.8
outward	0.1	-	0.1	0.7	1.3	-
Cameroon						
inward	-0.7	2.5	3.1	3.1	2.3	2.1
outward	0.8	0.9	0.4	0.1	0.2	0.2
Cape Verde						
inward	3.1	23.6	10.4	8.2	43.4	19.5
outward	0.5	0.2	-	-	0.3	-

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Annex table B.5. Inward and outward FDI flows as a percentage of gross fixed capital formation, by region and economy, 1990-2000 (continued)

(Per cent)

Region/economy	1990-1995 (Annual average)	1996	1997	1998	1999	2000
Central African Republic						
inward	-1.8	10.8	5.6	3.5	8.5	4.8
outward	3.3	1.4	-1.3	0.8	0.1	-
Chad						
inward	9.0	11.9	7.9	6.6	5.9	5.2
outward	8.0	2.5	2.2	2.3	1.8	1.6
Comoros						
inward	1.2	1.6	0.1	10.0	1.3	5.9
outward	2.4[b]	..	..	..	..	..
Congo						
inward	4.2	2.4	-2.4	24.8	28.8	-8.1
outward	0.3	0.5	0.7	0.2	2.7	0.3
Congo, Democratic Republic of						
inward	-0.3	5.9	-10.8	13.4	2.6	5.3
outward	..	..	..	..	..	..
Côte d'Ivoire						
inward	12.3	22.4	29.6	22.1	20.4	21.3
outward	10.3	2.4	2.3	1.9	3.1	1.7
Djibouti						
inward	7.7[c]	7.4	5.1	4.4	8.9	4.7
outward	..	..	..	..	..	..
Equatorial Guinea						
inward	52.9	109.3	5.9	5.7	25.2	23.9
outward	-	-0.1	0.3	0.2	0.2	0.2
Eritrea						
inward	..	19.9	14.4	9.9	11.7	15.2
outward	..	..	..	..	..	..
Ethiopia						
inward	1.0	1.9	27.5	23.4	6.7	14.9
outward	..	..	21.7	22.8	-4.4	-0.1
Gabon						
inward	-6.2	-37.8	-23.9	10.3	-12.8	19.5
outward	1.7	0.2	1.6	2.3	6.1	3.3
Gambia						
inward	15.9	21.7	29.2	30.9	64.4	59.7
outward	5.8	6.4	7.7	7.3	5.8	6.5
Ghana						
inward	7.1	8.4	5.0	3.3	3.7	9.2
outward	..	10.5	3.1	1.8	4.6	4.2
Guinea						
inward	2.6	3.5	2.6	2.8	8.7	5.1
outward	..	0.1	0.2	0.2	0.4	0.3
Guinea-Bissau						
inward	2.7	1.7	17.7	16.6	22.8	60.0
outward	..	..	..	..	..	..
Kenya						
inward	1.2	0.7	2.1	2.2	2.6	10.3
outward	0.2	1.4	0.2	0.8	1.9	3.2
Lesotho						
inward	44.4	52.0	47.8	60.2	37.7	31.1
outward	0.1[d]	..	..	..	..	..
Madagascar						
inward	4.2	2.2	3.3	3.3	12.4	13.6
outward	0.2	-0.2	-0.4	0.2	-	0.2
Malawi						
inward	5.5	19.6	8.9	36.1	26.8	19.8
outward	..	0.9	0.4	2.9	1.3	1.4
Mali						
inward	3.8	7.6	12.5	6.9	10.1	23.8
outward	-	0.6	0.8	5.2	9.8	6.3
Mauritania						
inward	4.1	3.3	0.5	0.1	0.5	3.3
outward	0.1[e]	..	..	..	..	..
Mauritius						
inward	2.4	3.3	5.0	1.3	4.2	25.9
outward	1.7	0.2	0.3	1.4	0.5	1.2
Mozambique						
inward	6.3	13.1	10.5	27.4	30.0	11.0
outward	-[f]	0.1	-0.1	-	-	-
Namibia						
inward	16.7	15.7	11.7	9.9	14.3	24.7
outward	0.3	-2.6	0.1	-0.2	-0.2	1.5
Niger						
inward	8.0	8.4	11.1	3.5	0.1	10.2
outward	3.9	7.4	3.6	4.0	0.1	5.4
Nigeria						
inward	28.1	20.2	13.5	11.9	12.4	10.0
outward	14.1	0.5	0.5	1.2	1.1	0.9
Rwanda						
inward	1.4	1.1	1.0	2.4	0.5	2.9
outward	-0.2	0.6	0.5	0.1	0.3	0.3

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Annex table B.5. Inward and outward FDI flows as a percentage of gross fixed capital formation, by region and economy, 1990-2000 (continued)

(Per cent)

Region/economy	1990-1995 (Annual average)	1996	1997	1998	1999	2000
São Tomé and Principe						
inward	0.1[c]	1.3	0.6	2.7	4.2	12.0
outward	..	..	..	..	..	..
Senegal						
inward	4.5	1.0	22.3	7.5	15.1	10.2
outward	0.8	0.3	0.1	1.1	0.6	3.0
Seychelles						
inward	20.4	18.0	31.7	26.3	26.4	31.3
outward	4.2	7.9	5.8	1.4	4.0	4.1
Sierra Leone						
inward	4.8	22.4	22.6	-25.9	21.0	12.2
outward	0.4	-	-	-0.1	-	-
Somalia						
inward	4.1[e]	..	..	..	..	..
outward	..	..	..	..	..	..
South Africa						
inward	1.3	3.5	15.8	2.5	7.6	4.7
outward	4.8	4.5	9.7	8.0	8.0	1.4
Swaziland						
inward	26.6	6.1	-3.5	34.6	20.5	-5.0
outward	11.4	-3.1	-2.3	5.5	1.9	-5.0
Togo						
inward	5.5	14.2	11.3	19.3	34.9	28.5
outward	3.1	6.7	2.2	10.3	20.5	7.8
Uganda						
inward	5.6	11.5	15.5	18.5	21.1	22.7
outward	4.7	1.0	1.3	1.8	-0.8	-2.5
United Republic of Tanzania						
inward	3.7	13.9	14.0	12.8	13.8	12.2
outward	-[g]	-	-	-	-	-
Zambia						
inward	26.9	8.2	14.1	37.3	29.3	22.9
outward	..	..	..	..	..	..
Zimbabwe						
inward	2.1	4.2	8.0	44.0	7.2	2.5
outward	0.7	2.7	1.7	0.9	1.1	0.8
Latin America and the Caribbean						
inward	**7.4**	**12.6**	**16.6**	**17.1**	**25.9**	**20.7**
outward	**1.2**	**1.5**	**2.9**	**3.4**	**3.2**	**2.4**
South America	**-**	**-**	**-**	**-**	**-**	**-**
inward	**5.4**	**11.8**	**15.9**	**17.4**	**32.9**	**25.4**
outward	**1.2**	**1.2**	**2.7**	**3.0**	**4.0**	**3.8**
Argentina						
inward	9.2	14.1	16.1	11.5	47.2	24.2
outward	1.7	3.3	6.4	3.9	2.4	2.0
Bolivia						
inward	16.7	35.6	58.4	48.4	62.3	47.0
outward	0.2	0.2	0.1	0.1	0.2	0.9
Brazil						
inward	2.0	7.2	11.8	18.6	28.2	28.4
outward	0.7	-0.3	0.7	1.8	1.7	2.0
Chile						
inward	13.6	23.2	23.2	22.4	59.9	23.1
outward	3.8	5.9	8.3	13.5	31.5	30.1
Colombia						
inward	8.0	14.8	25.8	15.2	12.8	22.4
outward	0.8	1.6	3.8	4.3	1.0	2.4
Ecuador						
inward	11.6	14.8	19.2	21.0	31.9	32.7
outward	0.7	0.7	6.8	-2.0	0.9	-0.6
Guyana						
inward	31.0	30.0	15.9	22.6	29.0	42.3
outward	-[g]	-0.3	-0.1	-0.2	-1.2	1.3
Paraguay						
inward	6.0	6.6	10.6	17.7	3.9	5.9
outward	0.4	0.2	0.3	0.3	0.3	0.4
Peru						
inward	10.4	25.9	12.1	13.8	20.2	6.3
outward	0.1	-0.1	0.6	0.5	1.1	0.9
Suriname						
inward	-8.4	6.6	-2.9	4.8	-45.1	-159.2
outward	..	..	..	..	..	..
Uruguay						
inward	3.9	4.8	4.0	4.8	7.9	10.8
outward	-	-	0.4	0.3	1.3	0.3
Venezuela						
inward	8.3	19.6	33.3	24.6	20.2	25.9
outward	3.4	4.6	3.0	1.3	3.1	0.6

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Annex table B.5. Inward and outward FDI flows as a percentage of gross fixed capital formation, by region and economy, 1990-2000 (continued)

(Per cent)

Region/economy	1990-1995 (Annual average)	1996	1997	1998	1999	2000
Other Latin America and the Caribbean						
inward	**12.4**	**15.6**	**18.6**	**16.4**	**14.1**	**13.4**
outward	**1.1**	**2.7**	**3.3**	**4.3**	**1.8**	**0.2**
Anguilla						
inward	68.9h	144.0	95.3	101.6	109.3	113.5
outward	..	..	4.5	3.6	2.9	2.9
Antigua and Barbuda						
inward	23.3	9.0	10.1	10.3	12.4	10.4
outward	0.9g	0.2	-1.3	-0.4	-0.3	0.3
Bahamas						
inward	3.6	14.3	32.7	22.6	23.5	38.8
outward	-	-	0.1	0.2	-	-
Barbados						
inward	5.0	5.3	4.4	3.6	3.6	4.1
outward	0.7	1.4	0.4	0.2	0.3	0.2
Belize						
inward	12.7	12.1	8.2	12.4	27.5	10.7
outward	1.7	4.1	2.7	3.6	4.8	3.8
Costa Rica						
inward	13.8	20.9	17.3	21.0	20.6	14.8
outward	0.2	0.3	0.2	0.2	0.2	0.2
Cuba						
inward	..	..	..	..	..	..
outward	..	..	..	..	..	..
Dominica						
inward	38.1	26.2	27.5	9.2	24.3	12.9
outward	..	..	..	..	..	..
Dominican Republic						
inward	10.8	3.9	14.3	19.1	32.2	20.6
outward	0.4g	0.6	0.1	0.1	0.1	0.1
El Salvador						
inward	1.4	-0.3	3.3	55.2	10.8	7.8
outward	-f	0.1	-	0.1	1.1	-0.2
Grenada						
inward	22.1	16.4	29.1	38.2	27.5	21.2
outward	-	-0.1	0.4	0.2	0.3	-0.2
Guatemala						
inward	5.7	3.7	3.1	20.8	4.7	7.4
outward	-0.2	0.1	0.3	0.2	-0.1	1.2
Haiti						
inward	-0.1	0.5	0.5	1.1	2.6	1.3
outward	-2.9	0.1	0.1	0.1	-0.1	0.1
Honduras						
inward	6.6	9.2	10.6	6.7	14.7	18.1
outward	-	-	-	-	-	-
Jamaica						
inward	13.3	9.8	9.4	18.6	27.8	22.3
outward	4.0	4.9	2.6	4.1	5.0	3.5
Mexico						
inward	12.7	16.7	18.0	13.6	12.3	12.2
outward	0.4	0.1	1.4	1.5	1.4	0.8
Montserrat						
inward	21.2h	-1.5	12.8	10.4	37.7	19.9
outward	..	..	..	..	..	..
Nicaragua						
inward	10.3	19.1	28.3	26.6	31.5	31.8
outward	0.1i	-1.6	0.2	1.0	0.3	0.5
Panama						
inward	16.2	20.2	56.6	49.4	22.4	22.9
outward	53.1	92.7	90.1	125.3	12.2	-31.8
Saint Kitts and Nevis						
inward	26.8	31.2	16.3	25.9	53.1	63.3
outward	-0.1	-0.2	0.3	0.1	0.2	-0.1
Saint Lucia						
inward	33.9	13.0	30.9	52.0	44.8	27.8
outward	0.2	-0.3	0.1	-0.2	-	-
Saint Vincent and the Grenadines						
inward	34.8	54.1	106.2	88.4	52.4	32.0
outward	0.6e	..	..	..	..	..
Trinidad and Tobago						
inward	33.8	37.4	65.2	46.9	44.7	47.4
outward	0.1	0.1	-1.2	0.1	18.3	1.8
Asia and the Pacific						
inward	**5.3**	**8.3**	**9.2**	**9.5**	**9.6**	**11.6**
outward	**3.0**	**4.8**	**4.5**	**3.0**	**3.8**	**7.4**
Asia						
inward	**5.2**	**8.2**	**9.2**	**9.5**	**9.6**	**11.6**
outward	**3.0**	**4.8**	**4.5**	**3.0**	**3.8**	**7.4**

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Annex table B.5. Inward and outward FDI flows as a percentage of gross fixed capital formation, by region and economy, 1990-2000 (continued)

(Per cent)

Region/economy	1990-1995 (Annual average)	1996	1997	1998	1999	2000
West Asia						
inward	**0.9**	**1.8**	**3.3**	**3.6**	**0.2**	**0.3**
outward	**-0.3**	**1.6**	**-0.1**	**-0.7**	**0.9**	**0.6**
Bahrain						
inward	28.0	271.1	43.3	20.7	50.4	33.3
outward	5.5	40.4	6.3	20.8	18.1	0.9
Cyprus						
inward	6.1	3.1	4.9	4.4	8.2	10.6
outward	0.8	2.0	2.1	4.4	9.8	13.2
Iran, Islamic Republic of						
inward	0.2	0.1	0.1	-	-	-
outward	-0.1[j]	0.2	0.2	-	0.9	0.5
Iraq						
inward	-[f]	..	..	..	..	..
outward	..	..	..	..	..	..
Jordan						
inward	0.7	0.8	19.3	18.5	10.3	2.3
outward	-1.2	-2.1	0.1	0.1	0.3	0.6
Kuwait						
inward	-0.1	7.9	0.5	1.1	1.5	0.4
outward	-2.8	39.5	-23.7	-35.7	0.5	-7.2
Lebanon						
inward	0.5	2.1	3.8	4.2	7.0	10.0
outward	-0.1	0.2	0.5	-	0.1	-0.4
Oman						
inward	5.8	2.9	2.3	3.0	0.9	1.0
outward	0.1	0.1	-	-0.1	0.1	-0.1
Occupied Palestinian Territory						
inward	..	0.4	9.6	3.9	1.1	5.3
outward	..	..	..	..	..	..
Qatar						
inward	3.9	10.7	12.1	11.5	3.5	7.8
outward	1.2[c]	1.3	0.6	0.7	0.9	0.7
Saudi Arabia	-	-	-	-	-	-
inward	1.5	-4.7	11.1	16.3	-3.1	-6.9
outward	-0.3	1.0	0.8	0.3	0.2	0.4
Syrian Arab Republic						
inward	1.2	0.6	0.6	0.6	1.9	1.9
outward	-0.7[c]	-0.6	-0.6	-0.6	-1.9	-1.9
Turkey						
inward	2.0	1.6	1.6	1.9	1.9	2.2
outward	0.1	0.2	0.5	0.7	1.6	2.0
United Arab Emirates						
inward	1.4	2.7	1.8	1.9	-7.8	2.0
outward	-0.1	1.0	1.6	-0.2	0.9	1.3
Yemen						
inward	5.8	-4.0	-12.0	-13.4	-14.4	-12.9
outward	..	..	..	..	..	..
Central Asia	-	-	-	-	-	-
inward	**6.5**	**25.9**	**39.7**	**32.2**	**29.2**	**22.9**
outward	**-[h]**	**-**	**-**	**3.2**	**6.9**	**0.4**
Armenia						
inward	3.7	6.2	19.5	75.7	43.0	39.3
outward	..	..	..	3.8	4.3	2.4
Azerbaijan						
inward	19.3[h]	72.0	74.8	65.9	32.1	9.2
outward	..	..	..	8.3	21.2	0.1
Georgia						
inward	12.0[h]	18.4	43.4	30.0	20.1	29.8
outward	..	..	..	..	0.2	-0.1
Kazakhstan						
inward	16.4[g]	46.2	58.5	35.4	53.8	41.0
outward	-[h]	-	-	0.2	0.1	0.3
Kyrgyzstan						
inward	20.2[a]	11.3	37.2	50.6	22.2	-1.0
outward	..	..	..	10.5	3.0	1.9
Tajikistan						
inward	2.4[g]	12.8	11.0	14.4	11.3	12.3
outward	..	..	..	..	..	..
Turkmenistan						
inward	..	..	10.7	4.9	5.9	7.7
outward	..	..	..	..	..	..
Uzbekistan						
inward	0.7[g]	2.2	6.8	7.7	7.9	8.6
outward	..	..	..	..	..	..

Annex table B.5. Inward and outward FDI flows as a percentage of gross fixed capital formation, by region and economy, 1990-2000 (continued)

(Per cent)

Region/economy	1990-1995 (Annual average)	1996	1997	1998	1999	2000
South, East and South-East Asia						
inward	**6.7**	**9.1**	**10.0**	**10.5**	**11.5**	**14.0**
outward	**3.8**	**5.3**	**5.4**	**3.9**	**4.4**	**9.0**
Bangladesh						
inward	0.1	0.2	1.6	2.1	1.8	2.7
outward	-	0.2	0.1	0.3	0.2	0.2
Bhutan						
inward	0.8	1.0	-0.5	0.2	0.2	-
outward	..	..	..	..	..	..
Cambodia	-	-	-	-	-	-
inward	19.1[g]	71.9	-2.5	53.5	44.8	37.6
outward	0.7[i]	..	..	..	..	..
China						
inward	9.8	14.3	14.6	12.9	11.3	10.5
outward	1.4	0.8	0.8	0.8	0.5	0.2
Hong Kong, China						
inward	15.3	21.7	19.8	30.0	60.2	144.9
outward	37.4	55.1	42.5	34.5	47.3	138.9
India						
inward	0.9	2.9	4.0	2.9	2.2	2.3
outward	-	0.3	0.1	0.1	0.1	0.3
Indonesia						
inward	4.8	9.2	7.7	-1.5	-9.0	-12.2
outward	2.0	0.9	0.3	0.2	0.2	0.4
Korea, Republic of						
inward	0.8	1.2	1.7	5.7	8.3	7.1
outward	1.4	2.4	2.7	5.0	3.7	3.8
Lao People's Democratic Republic						
inward	19.3[c]	23.6	18.2	14.4	15.6	9.7
outward	0.1[c]	-	-	-	-	-
Macao, China						
inward	-	0.4	0.2	-1.5	0.9	-0.9
outward	..	..	..	..	..	..
Malaysia						
inward	19.4	17.0	14.7	14.0	22.2	16.5
outward	3.4	8.8	6.2	4.4	8.1	8.8
Maldives						
inward	8.6	6.6	6.5	6.6	5.8	8.9
outward	..	..	..	..	..	..
Mongolia						
inward	4.4[a]	6.1	10.3	7.3	12.0	18.7
outward	..	..	..	..	..	..
Myanmar						
inward	3.1	1.6	1.6	1.0	0.7	0.8
outward	..	..	..	..	..	..
Nepal						
inward	0.7	1.9	2.2	1.2	0.5	-
outward	..	..	..	..	..	..
Pakistan						
inward	4.4	9.0	7.4	5.7	6.7	3.9
outward	-	0.1	-0.3	0.1	-	0.1
Philippines						
inward	7.9	7.8	6.2	12.7	4.0	9.2
outward	0.5	0.9	0.7	1.2	0.2	0.8
Singapore						
inward	30.5	24.6	29.4	20.8	42.4	19.8
outward	11.7	19.5	25.9	2.6	15.4	18.2
Sri Lanka						
inward	4.3	4.0	11.8	5.2	4.7	3.9
outward	0.2	0.2	0.1	0.3	0.6	-
Taiwan Province of China						
inward	2.5	3.0	3.4	0.4	4.4	6.8
outward	6.2	6.1	7.9	6.1	6.7	9.2
Thailand						
inward	4.4	3.0	7.1	20.5	13.9	10.4
outward	0.6	1.1	0.9	0.5	1.3	0.2
Viet Nam						
inward	33.5	29.5	37.3	23.9	20.1	15.0
outward	..	..	..	..	..	..
The Pacific						
inward	**29.1**	**52.6**	**10.6**	**29.6**	**28.9**	**9.1**
outward	**6.0**	**5.8**	**8.2**	**8.2**	**14.3**	**4.1**
Fiji						
inward	39.1	-15.6	-5.0	57.2	-39.6	-34.8
outward	4.8	4.6	14.1	25.6	26.8	3.1
Kiribati						
inward	0.9	3.3	4.8	2.4	2.4	3.2
outward	0.1[k]	..	..	..	..	..

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Annex table B.5. Inward and outward FDI flows as a percentage of gross fixed capital formation, by region and economy, 1990-2000 (continued)

(Per cent)

Region/economy	1990-1995 (Annual average)	1996	1997	1998	1999	2000
Papua New Guinea						
inward	28.2	72.8	11.7	20.9	71.7	23.1
outward	6.5	6.1	6.5	0.1	8.4	5.0
Solomon Islands						
inward	17.2	9.1	14.0	2.8	-28.5	2.1
outward	-0.1[l]	..	..	..	..	0.3
Tonga						
inward	2.8[l]	..	..	..	..	..
outward	0.1[m]	..	..	..	..	..
Tuvalu						
inward	..	..	..	..	..	..
outward	..	..	..	..	..	..
Vanuatu						
inward	45.9	54.8	48.0	31.3	32.1	32.0
outward	..	..	..	..	..	..
Central and Eastern Europe						
inward	**4.8**	**7.1**	**9.7**	**13.7**	**18.6**	**18.2**
outward	**0.2**	**0.7**	**2.2**	**1.5**	**1.8**	**2.8**
Albania						
inward	25.2[j]	21.6	12.9	9.2	6.7	20.5
outward	15.9[g]	2.4	2.7	0.2	1.1	0.9
Belarus						
inward	0.3[g]	3.4	9.9	5.1	13.9	3.8
outward	0.3[c]	0.1	0.1	0.1	-	-
Bosnia and Herzegovina						
inward	-[c]	-0.2	0.1	4.1	15.9	14.6
outward	3.5[c]	3.1	-0.2	..	..	..
Bulgaria						
inward	3.8	8.1	46.1	33.2	41.4	51.7
outward	-0.2[g]	-2.1	-0.2	-	0.9	0.2
Croatia						
inward	5.7[a]	12.7	11.2	19.6	35.2	28.2
outward	0.5[a]	1.4	3.8	1.9	0.8	0.7
Czech Republic						
inward	8.4	⁻7.7	8.0	22.6	41.5	34.7
outward	0.6[g]	0.8	0.2	0.8	0.6	0.3
Estonia						
inward	26.6[g]	12.9	20.6	37.6	23.5	32.9
outward	0.6[g]	3.4	10.6	0.4	6.4	5.4
Hungary						
inward	23.5	23.5	21.4	18.3	16.9	14.6
outward	0.3[j]	-	4.2	4.3	2.2	4.9
Latvia						
inward	24.9[g]	41.0	49.3	21.5	20.7	21.5
outward	-5.4[g]	0.3	0.6	3.3	1.0	0.5
Lithuania						
inward	3.9[g]	8.4	15.2	35.4	20.7	18.0
outward	0.1[c]	-	1.2	0.2	0.4	0.2
Moldova, Republic of						
inward	10.0[g]	7.1	20.5	19.8	17.0	69.3
outward	1.8[h]	0.2	0.1	-0.2	-	0.1
Poland						
inward	7.7	15.1	14.5	15.9	18.4	23.4
outward	0.1	0.2	0.1	0.8	0.1	-
Romania	-	-	-	-	-	-
inward	2.7	3.2	16.3	26.5	16.5	14.7
outward	0.1	-	-0.1	-0.1	0.3	-0.2
Russian Federation						
inward	1.5[g]	2.9	5.8	5.7	11.9	6.7
outward	0.5[a]	1.0	3.8	2.6	8.0	7.9
Slovakia						
inward	3.6	3.7	3.0	8.4	6.4	35.9
outward	0.3[g]	0.8	1.3	1.8	-6.1	0.3
Slovenia						
inward	4.2[j]	4.6	8.8	5.1	3.3	3.6
outward	-0.1[g]	0.1	0.8	-	0.7	1.4
TFYR Macedonia						
inward	2.9[h]	1.6	2.5	18.9	5.2	36.7
outward	..	0.1	0.2	0.2	0.2	-
Ukraine						
inward	2.0[g]	5.6	6.2	9.0	8.1	9.9
outward	0.1[h]	-0.1	0.4	-	0.1	-
Memorandum						
Least developed countries [n]						
inward	**5.2**	**5.6**	**5.1**	**6.3**	**7.8**	**5.8**
outward	**0.6**	**0.4**	**1.4**	**1.8**	**0.5**	**0.5**

Annex table B.5. Inward and outward FDI flows as a percentage of gross fixed capital formation, by region and economy, 1990-2000 (concluded)

(Per cent)

Region/economy	1990-1995 (Annual average)	1996	1997	1998	1999	2000
Oil-exporting countries o						
inward	2.5	6.0	7.9	6.9	2.1	1.2
outward	1.1	1.7	0.4	-0.5	0.9	0.3
All developing countries, excluding China						
inward	4.9	7.9	10.3	11.0	14.1	14.3
outward	2.8	4.5	4.8	3.8	4.5	7.6

Source: UNCTAD, FDI/TNC database.

a   Annual average from 1993 to 1995.
b   Annual average from 1990 to 1991.
c   1995.
d   1992.
e   1990.
f   Annual average from 1990 to 1993.
g   Annual average from 1992 to 1995.
h   Annual average from 1994 to 1995.
i   1993.
j   Annual average from 1991 to 1995.
k   1994.
l   Annual average from 1990 to 1992.
m   1991.
n   Least developed countries include: Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, Cape Verde, Central African Republic, Chad, Comoros, Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, Lao People's Democratic Republic, Lesotho, Liberia, Madagascar, Malawi, Maldives, Mali, Mauritania, Mozambique, Myanmar, Nepal, Niger, Rwanda, Samoa, Sao Tome and Principe, Senegal, Sierra Leone, Solomon Islands, Somalia, Sudan, Togo, Tuvalu, Uganda, United Republic of Tanzania, Vanuatu, Yemen and Zambia.
o   Oil-exporting countries include: Cameroon, Algeria, Angola, Bahrain, Brunei Darussalam, Congo, Ecuador, Gabon, Indonesia, Islamic Republic of Iran, Iraq, Kuwait, Libyan Arab Jamahiriya, Nigeria, Oman, Qatar, Saudi Arabia, Syrian Arab Republic, Trinidad and Tobago, United Arab Emirates and Venezuela.

Annex table B.6. Inward and outward FDI stocks as a percentage of gross domestic product, by region and economy, 1980, 1985, 1990, 1995 and 2000

(Per cent)

Region/economy	1980	1985	1990	1995	2000
World					
inward	**6.1**	**7.8**	**8.9**	**10.0**	**20.0**
outward	**5.4**	**6.2**	**8.4**	**9.9**	**19.6**
Developed economies					
inward	**4.8**	**6.2**	**8.1**	**8.9**	**17.1**
outward	**6.2**	**7.2**	**9.6**	**11.3**	**22.1**
Western Europe					
inward	**6.2**	**9.3**	**10.8**	**13.1**	**30.2**
outward	**6.4**	**10.5**	**12.1**	**16.1**	**41.4**
European Union					
inward	**6.1**	**9.2**	**10.6**	**12.9**	**30.3**
outward	**6.1**	**10.2**	**11.6**	**15.0**	**40.1**
Austria					
inward	4.0	5.6	6.1	7.5	16.1
outward	0.7	2.0	2.6	5.0	13.2
Belgium and Luxembourg					
inward	5.8	21.2	27.8	40.8	174.0
outward	4.8	11.0	19.4	28.3	154.1
Denmark					
inward	6.1	6.0	6.9	13.2	39.6
outward	3.0	3.0	5.5	13.7	39.4
Finland					
inward	1.0	2.5	3.8	6.5	20.0
outward	1.4	3.4	8.2	11.6	43.0
France					
inward	8.2	12.6	8.2	12.3	19.9
outward	3.6	7.1	9.9	13.2	33.4
Germany					
inward	3.9	5.1	7.1	7.8	24.1
outward	4.6	8.4	8.8	10.5	25.2
Greece					
inward	9.3	20.2	9.4	11.2	11.1
outward	6.0	7.1	3.5	2.6	5.1
Ireland					
inward	7.9	12.5	7.2	14.4	68.2
outward	..	-	5.8	6.9	19.4
Italy					
inward	2.0	4.5	5.3	5.8	10.5
outward	1.6	3.9	5.2	8.8	16.8
Netherlands					
inward	10.8	18.8	23.3	28.0	65.9
outward	23.7	36.1	36.3	41.6	83.8
Portugal					
inward	12.3	18.7	14.8	17.1	26.5
outward	1.7	2.4	1.3	3.0	16.7
Spain					
inward	2.3	5.2	12.8	18.7	25.8
outward	0.9	2.6	3.0	6.2	29.6
Sweden					
inward	2.2	4.2	5.3	12.9	36.1
outward	2.8	10.4	21.3	30.5	53.8
United Kingdom					
inward	11.8	14.1	20.6	17.6	30.5
outward	15.0	22.0	23.2	26.9	63.2
Other Western Europe					
inward	**8.7**	**10.9**	**13.4**	**16.6**	**28.1**
outward	**12.7**	**16.1**	**22.0**	**35.6**	**66.0**
Iceland					
inward	..[a]	2.4	2.3	1.8	5.7
outward	1.7	2.0	1.2	2.6	7.7
Malta					
inward	13.8	28.1	20.1	28.4	84.7
outward	..	..	..	1.0	6.0
Norway					
inward	10.4	11.7	10.7	12.8	18.8
outward	0.9	1.7	9.4	15.4	27.3
Switzerland					
inward	7.9	10.4	15.0	18.6	34.2
outward	20.0	26.0	28.9	46.4	95.1
North America					
inward	**4.5**	**5.5**	**8.0**	**8.3**	**13.5**
outward	**7.9**	**6.2**	**8.1**	**10.3**	**14.5**

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Annex table B.6. Inward and outward FDI stocks as a percentage of gross domestic product, by region and economy, 1980, 1985, 1990, 1995 and 2000 (continued)

(Per cent)

Region/economy	1980	1985	1990	1995	2000
Canada					
inward	20.4	18.4	19.6	21.1	28.8
outward	8.9	12.3	14.7	20.3	32.4
United States					
inward	3.0	4.4	6.9	7.3	12.4
outward	7.8	5.7	7.5	9.5	13.2
Other developed economies					
inward	**1.6**	**2.1**	**2.7**	**2.9**	**4.0**
outward	**1.8**	**3.3**	**6.9**	**5.2**	**7.0**
Australia					
inward	7.9	14.5	23.7	27.9	29.2
outward	1.4	3.8	9.8	14.2	20.9
Israel					
inward	7.4	8.4	5.6	7.1	19.4
outward	0.8	2.7	2.2	4.5	8.5
Japan					
inward	0.3	0.3	0.3	0.6	1.1
outward	1.8	3.2	6.6	4.5	5.8
New Zealand					
inward	10.3	8.9	18.2	43.1	49.4
outward	2.3	6.6	14.7	12.6	10.8
Developing economies					
inward	**10.2**	**13.9**	**13.0**	**15.3**	**30.9**
outward	**1.3**	**1.7**	**2.8**	**5.1**	**11.9**
Africa					
inward	**8.8**	**10.3**	**10.7**	**15.6**	**25.5**
outward	**2.2**	**4.1**	**5.9**	**7.9**	**9.2**
North Africa					
inward	**4.3**	**6.0**	**8.5**	**13.0**	**15.1**
outward	**0.4**	**0.6**	**0.9**	**0.9**	**1.3**
Algeria					
inward	3.1	2.2	2.2	3.5	6.5
outward	0.2	0.3	0.3	0.6	0.6
Egypt					
inward	9.9	16.4	25.6	23.4	21.1
outward	0.2	0.3	0.4	0.6	0.7
Libyan Arab Jamahiriya					
inward	..[a]	..[a]	..[a]	..[a]	..[a]
outward	0.4	1.0	2.2	0.9	4.0
Morocco					
inward	1.0	3.4	3.6	10.1	18.4
outward	0.8	2.6	1.9	1.8	2.2
Sudan					
inward	0.4	0.6	0.4	2.3	12.1
outward	..	..	..	..	..
Tunisia					
inward	70.4	85.6	62.0	61.0	58.8
outward	0.1	0.1	0.1	0.2	0.2
Other Africa					
inward	**11.2**	**13.8**	**12.2**	**17.2**	**33.8**
outward	**3.6**	**8.2**	**9.7**	**12.8**	**15.9**
Angola					
inward	1.8	9.9	10.0	58.0	90.4
outward	..	..	..	..	..
Benin					
inward	2.2	3.2	8.6	18.9	28.8
outward	-	0.2	0.1	0.1	4.2
Botswana					
inward	61.8	79.5	34.8	23.0	36.3
outward	38.7	36.8	11.9	13.3	10.3
Burkina Faso					
inward	1.0	1.7	1.4	3.4	6.8
outward	0.2	0.2	0.1	0.6	1.1
Burundi					
inward	0.7	2.1	2.7	3.4	6.9
outward	..	..	-	0.1	0.3
Cameroon					
inward	4.9	13.8	9.4	13.3	14.2
outward	0.3	0.6	1.3	2.9	2.9
Cape Verde					
inward	..	..	1.1	7.7	28.9
outward	..	..	0.4	0.9	1.0
Central African Republic					
inward	6.2	8.9	6.4	6.8	11.4
outward	..[a]	0.1	1.2	3.5	4.2

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Annex table B.6. Inward and outward FDI stocks as a percentage of gross domestic product, by region and economy, 1980, 1985, 1990, 1995 and 2000 (continued)

(Per cent)

Region/economy	1980	1985	1990	1995	2000
Chad					
inward	14.6	21.6	16.6	24.4	30.5
outward	0.1	0.1	2.7	6.4	8.1
Comoros					
inward	1.6	1.8	6.8	8.4	12.1
outward	..	..	0.4	0.7	0.8
Congo					
inward	18.4	22.4	20.3	26.7	26.6
outward	..	..	..	..	..
Congo, Democratic Republic of					
inward	4.9	8.6	5.8	9.6	10.5
outward	..	..	..	..	..
Côte d'Ivoire					
inward	5.2	10.0	9.0	16.2	36.6
outward	..	..	0.3	5.2	7.4
Djibouti					
inward	1.2	1.1	1.5	3.4	6.1
outward	..	..	..	..	..
Equatorial Guinea					
inward	..	7.0	19.2	145.7	67.0
outward	..	..	0.2	..[a]	0.3
Eritrea					
inward	..	..	..	..	23.3
outward	..	..	..	..	..
Ethiopia					
inward	2.7	1.7	1.8	2.9	14.7
outward	..	..	..	..	6.8
Gabon					
inward	12.0	24.9	20.3	15.2	3.9
outward	1.8	3.1	2.7	5.2	8.7
Gambia					
inward	52.7	56.3	49.4	48.4	51.2
outward	..	..	6.9	9.4	10.4
Ghana					
inward	5.2	6.0	5.4	12.7	24.2
outward	..	..	..	..	6.9
Guinea					
inward	0.1	0.1	2.4	3.5	9.5
outward	..	..	..	..	0.3
Guinea-Bissau					
inward	0.1	2.7	3.3	7.8	31.6
outward	..	..	..	..	..
Kenya					
inward	5.3	7.8	7.8	8.1	9.6
outward	0.2	1.0	1.2	1.3	2.2
Lesotho					
inward	1.2	8.5	25.0	143.8	271.6
outward	..	..	-	-	-
Liberia					
inward	77.7	115.1	194.9	379.3	264.9
outward	4.3	33.0	36.0	174.5	172.5
Madagascar					
inward	0.9	1.7	3.4	5.4	8.7
outward	..	..	..	0.1	0.1
Malawi					
inward	8.1	12.1	9.8	17.5	28.9
outward	..	..	..	..	0.9
Mali					
inward	0.7	2.5	1.6	6.6	20.8
outward	1.2	1.7	0.9	0.9	5.9
Mauritania					
inward	..[a]	5.7	5.6	8.6	11.5
outward	..	..	0.3	0.3	0.3
Mauritius					
inward	1.8	3.5	6.2	6.3	15.5
outward	..	-	0.1	2.4	3.0
Mozambique					
inward	0.4	0.4	1.7	8.7	29.1
outward	..	..	..	-	-
Namibia					
inward	114.8	178.0	106.9	74.0	51.9
outward	..	..	92.6	76.9	34.9
Niger					
inward	7.5	14.1	11.5	19.2	23.8
outward	0.1	0.6	2.2	5.8	8.5
Nigeria					
inward	3.7	15.5	28.3	50.0	49.1
outward	-	..[a]	9.1	14.1	10.6
Rwanda					
inward	4.6	7.8	8.2	17.9	14.1
outward	..	..	-	..[a]	0.2

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Annex table B.6. Inward and outward FDI stocks as a percentage of gross domestic product, by region and economy, 1980, 1985, 1990, 1995 and 2000 (continued)

(Per cent)

Region/economy	1980	1985	1990	1995	2000
São Tomé and Principe					
inward	..	..	0.7	..[a]	8.2
outward	..	..	..	..	..
Senegal					
inward	5.0	7.3	4.5	8.3	19.5
outward	0.2	1.7	0.9	2.1	3.2
Seychelles					
inward	36.8	62.1	55.4	63.3	94.0
outward	9.4	25.9	16.6	18.5	22.2
Sierra Leone					
inward	6.6	5.5	..[a]	..[a]	2.6
outward	..	..	..	..	..
Somalia					
inward	4.8	0.5	..[a]	..[a]	..[a]
outward	..	..	..	..	..
South Africa					
inward	20.5	15.8	8.2	9.9	34.5
outward	7.1	15.7	13.4	15.4	25.7
Swaziland					
inward	41.8	29.1	39.9	41.1	29.2
outward	3.3	2.4	4.5	10.4	6.1
Togo					
inward	15.5	27.5	16.5	23.4	43.1
outward	0.9	1.3	1.0	3.4	11.5
Uganda					
inward	0.7	0.2	0.1	4.7	20.3
outward	..	..	..	4.4	4.3
United Republic of Tanzania					
inward	0.9	1.4	2.2	6.2	13.1
outward	..	..	..	..	..
Zambia					
inward	8.5	18.9	30.0	43.7	79.9
outward	..	..	..	..	..
Zimbabwe					
inward	2.8	3.3	1.4	4.8	14.7
outward	..	0.2	1.0	1.9	3.3
Latin America and the Caribbean					
inward	**6.5**	**11.0**	**10.4**	**11.8**	**30.9**
outward	**1.2**	**1.9**	**1.8**	**3.0**	**6.2**
South America					
inward	**5.9**	**8.9**	**8.5**	**8.6**	**30.0**
outward	**1.5**	**1.8**	**1.5**	**1.9**	**5.0**
Argentina					
inward	6.9	7.4	6.4	10.8	25.6
outward	7.8	6.7	4.3	4.1	7.3
Bolivia					
inward	15.1	19.0	21.1	23.4	61.0
outward	-	-	0.2	0.3	0.4
Brazil					
inward	7.4	11.5	8.0	6.0	33.1
outward	0.3	0.6	0.5	0.8	2.2
Chile					
inward	3.2	14.1	33.2	23.8	60.9
outward	0.2	0.6	0.6	4.3	25.9
Colombia					
inward	3.2	6.4	8.7	6.9	15.1
outward	0.4	0.9	1.0	1.1	3.7
Ecuador					
inward	6.1	6.2	15.2	19.4	51.0
outward	..	..	..	0.4	2.0
Guyana					
inward	..[a]	..[a]	..[a]	57.4	93.3
outward	..	..	..	0.3	-
Paraguay					
inward	4.6	9.5	7.6	7.1	16.4
outward	2.5	4.0	2.6	2.0	2.8
Peru					
inward	4.3	6.1	5.0	10.3	18.5
outward	-	0.2	0.2	1.1	0.9
Suriname					
inward	..[a]	4.0	..[a]	..[a]	..[a]
outward	..	..	..	..	..
Uruguay					
inward	7.2	16.8	10.8	8.0	10.6
outward	0.2	0.7	0.3	0.2	0.3
Venezuela					
inward	2.3	2.5	4.7	9.0	22.4
outward	-	0.3	4.6	5.1	4.8

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Annex table B.6. Inward and outward FDI stocks as a percentage of gross domestic product, by region and economy, 1980, 1985, 1990, 1995 and 2000 (continued)

(Per cent)

Region/economy	1980	1985	1990	1995	2000
Other Latin America and the Caribbean					
inward	7.4	14.7	14.7	22.5	32.6
outward	0.8	2.3	2.6	6.8	8.4
Anguilla					
inward	..	..	19.8	90.0	227.4
outward	..	..	..	..	..
Antigua and Barbuda					
inward	21.3	46.5	74.5	88.6	83.8
outward	..	..	..	..	..
Aruba					
inward	..	..	15.2	15.8	39.6
outward	..	..	..	0.8	0.7
Bahamas					
inward	41.0	23.4	18.9	21.5	32.9
outward	21.3	6.6	19.8	37.2	28.7
Barbados					
inward	11.8	10.3	9.9	12.1	11.8
outward	0.6	1.0	1.3	1.7	1.5
Belize					
inward	6.4	5.0	18.2	25.8	34.6
outward	..	..	..	2.0	5.7
Bermuda					
inward	836.7	774.7	869.7	1181.7	2280.0
outward	118.5	162.7	97.3	129.3	600.4
Cayman Islands					
inward	242.8	680.1	353.3	357.5	2392.4
outward	5.6	39.0	140.3	258.4	1560.5
Costa Rica					
inward	13.9	24.4	25.3	23.3	32.8
outward	0.1	0.7	0.8	0.6	0.6
Cuba					
inward	..[a]	-	-	0.2	0.3
outward	..	..	..	..	..
Dominica					
inward	0.1	10.7	42.9	87.9	100.4
outward	..	..	..	..	-
Dominican Republic					
inward	3.6	5.2	8.1	14.3	26.5
outward	..	..	..	0.3	0.3
El Salvador					
inward	4.3	4.8	4.4	3.1	14.9
outward	..	..	1.1	0.6	0.6
Grenada					
inward	1.5	9.8	31.7	60.6	83.8
outward	..	..	0.1	-	0.2
Guatemala					
inward	8.9	10.8	22.7	15.0	18.0
outward	..	..	..	..	0.3
Haiti					
inward	5.4	5.6	5.0	5.8	5.3
outward	..	..	..	-	0.1
Honduras					
inward	3.6	4.7	12.6	16.5	25.1
outward	..	..	..	..	..
Jamaica					
inward	21.3	25.0	18.7	32.3	44.8
outward	0.2	0.2	1.0	6.3	9.6
Mexico					
inward	3.6	10.2	8.5	14.4	16.9
outward	0.1	0.3	0.2	1.4	1.4
Montserrat					
inward	..	..	55.7	105.2	359.6
outward	..	..	..	..	..
Netherlands Antilles					
inward	88.9	24.1	22.4	20.8	220.3
outward	1.1	0.9	1.2	0.9	..[a]
Nicaragua					
inward	5.1	4.1	11.4	19.2	57.3
outward	..	..	..	-	0.3
Panama					
inward	64.6	58.2	41.4	41.0	68.2
outward	21.3	40.8	78.8	62.5	40.5
Saint Kitts and Nevis					
inward	2.1	40.5	100.6	105.7	154.2
outward	..	..	0.1	..[a]	..[a]
Saint Lucia					
inward	70.1	104.2	80.2	92.1	112.9
outward	..	..	0.1	0.2	0.1

Annex table B.6. Inward and outward FDI stocks as a percentage of gross domestic product, by region and economy, 1980, 1985, 1990, 1995 and 2000 (continued)

(Per cent)

Region/economy	1980	1985	1990	1995	2000
Saint Vincent and the Grenadines					
inward	2.0	7.5	24.3	67.9	146.5
outward	..	..	0.3	0.2	0.2
Trinidad and Tobago					
inward	15.7	23.3	41.3	67.5	95.6
outward	..	0.2	0.4	0.5	4.1
Virgin Islands					
inward	0.2	3.9	15.3	87.2	454.5
outward	..	..	..	468.0	849.1
Asia and the Pacific					
inward	**13.0**	**16.3**	**14.8**	**17.0**	**31.6**
outward	**0.9**	**1.0**	**2.7**	**5.7**	**15.2**
Asia					
inward	**13.0**	**16.3**	**14.8**	**17.0**	**31.6**
outward	**0.9**	**1.0**	**2.7**	**5.7**	**15.2**
West Asia					
inward	**..[a]**	**7.7**	**6.2**	**7.7**	**8.5**
outward	**0.7**	**1.3**	**3.4**	**1.2**	**1.6**
Bahrain					
inward	2.0	10.9	13.0	41.1	72.4
outward	19.5	16.4	17.0	17.8	21.8
Cyprus					
inward	21.4	32.6	20.5	17.8	23.7
outward	..	-	0.2	0.9	6.5
Iran, Islamic Republic of					
inward	3.2	3.7	2.2	2.6	2.4
outward	..	..	..	..[a]	1.3
Iraq					
inward	..[a]	..[a]	..[a]	..[a]	..[a]
outward	..	..	..	..	..
Jordan					
inward	3.9	9.6	15.3	9.2	18.1
outward	0.9	0.7	0.7	..[a]	..[a]
Kuwait					
inward	0.1	0.2	0.1	-	1.4
outward	2.0	4.3	19.9	10.6	3.8
Lebanon					
inward	0.5	1.5	1.9	1.0	6.6
outward	..	2.0	1.7	0.8	0.7
Oman					
inward	8.1	12.0	16.4	18.3	12.5
outward	..	-	0.1	0.2	0.1
Occupied Palestinian Territory					
inward	..	..	..	..	7.0
outward	..	..	..	..	..
Qatar					
inward	1.1	1.5	1.0	5.5	13.3
outward	..	..	..	0.4	1.1
Saudi Arabia					
inward	..[a]	25.2	21.5	17.5	15.0
outward	0.2	0.6	1.8	1.3	1.2
Syrian Arab Republic					
inward	-	0.2	3.0	8.0	10.0
outward	..	..	..	..	..
Turkey					
inward	0.2	0.5	0.9	3.0	4.7
outward	..	..	..	0.2	1.3
United Arab Emirates					
inward	1.4	1.8	2.2	4.1	3.8
outward	-	0.1	0.3	0.2	0.7
Yemen					
inward	3.7	4.5	3.7	44.8	10.4
outward	..	0.1	0.1	0.1	0.1
Central Asia					
inward	**..**	**..**	**..**	**8.5**	**39.5**
outward	**..**	**..**	**..**	**-**	**2.1**
Armenia					
inward	..	..	..	1.2	30.0
outward	..	..	..	..	1.7
Azerbaijan					
inward	..	..	..	6.1	70.9
outward	..	..	..	..	9.0
Georgia					
inward	..	..	..	1.7	14.0
outward	..	..	..	..	..

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Annex table B.6.   Inward and outward FDI stocks as a percentage of gross domestic product, by region and economy, 1980, 1985, 1990, 1995 and 2000 (continued)

(Per cent)

Region/economy	1980	1985	1990	1995	2000
Kazakhstan					
inward	..	..	..	14.6	54.8
outward	..	..	..	-	0.1
Kyrgyzstan					
inward	..	..	..	9.7	32.2
outward	..	..	..	..	2.5
Tajikistan					
inward	..	..	..	7.0	14.5
outward	..	..	..	..	..
Turkmenistan					
inward	..	..	..	7.1	20.7
outward	..	..	..	..	..
Uzbekistan					
inward	..	..	..	1.0	9.1
outward	..	..	..	..	..
South, East and South-East Asia					
inward	**21.1**	**19.5**	**17.4**	**18.9**	**36.4**
outward	**1.1**	**1.0**	**2.6**	**6.7**	**18.2**
Afghanistan					
inward	0.3	0.2	0.1	0.1	0.1
outward	..	..	..	..	..
Bangladesh					
inward	0.4	0.5	0.5	0.5	2.1
outward	..	..	-	-	0.2
Bhutan					
inward	..	..	0.6	0.7	0.7
outward	..	..	..	..	..
Brunei Darussalam					
inward	0.4	0.8	0.7	12.1	74.4
outward	..	..	..	1.4	2.9
Cambodia					
inward	2.4	2.0	3.4	12.1	48.7
outward	..	..	..	0.1	0.1
China					
inward	3.1	3.4	7.0	19.6	32.3
outward	..	-	0.7	2.3	2.4
Hong Kong, China					
inward	436.2	372.1	198.1	125.0	263.8
outward	0.5	6.7	15.9	56.6	224.9
India					
inward	0.6	0.5	0.5	1.6	4.1
outward	0.1	0.1	0.1	0.1	0.3
Indonesia					
inward	13.2	28.2	34.0	25.0	39.6
outward	..	0.1	0.1	0.6	1.5
Korea, Democratic People's Republic of					
inward	..	..	3.4	13.7	10.0
outward	..	..	..	..	..
Korea, Republic of					
inward	2.1	2.3	2.3	2.0	13.7
outward	0.2	0.5	0.9	1.6	11.1
Lao People's Democratic Republic					
inward	0.3	-	1.5	11.6	32.2
outward	..	..	..	-	0.1
Macao, China					
inward	..	0.7	0.3	0.1	..[a]
outward	..	..	..	..	..
Malaysia					
inward	20.7	23.3	23.4	32.3	58.8
outward	0.8	4.3	6.1	12.5	20.8
Maldives					
inward	11.4	2.8	12.6	16.7	21.3
outward	..	..	-	-	-
Mongolia					
inward	..	..	-	4.2	18.7
outward	..	..	..	-	-
Myanmar					
inward	12.7	11.3	11.1	17.2	24.7
outward	..	..	..	-	-
Nepal					
inward	0.1	0.1	0.3	0.9	1.8
outward	..	..	..	..	..
Pakistan					
inward	2.9	3.5	4.8	9.1	11.2
outward	0.2	0.4	0.6	0.7	0.8
Philippines					
inward	3.9	8.5	7.4	8.2	16.6
outward	0.5	0.6	0.3	1.6	2.6

Annex table B.6. Inward and outward FDI stocks as a percentage of gross domestic product, by region and economy, 1980, 1985, 1990, 1995 and 2000 (continued)

(Per cent)

Region/economy	1980	1985	1990	1995	2000
Singapore					
inward	52.9	73.6	77.9	71.5	103.8
outward	31.7	24.8	21.3	42.0	57.5
Sri Lanka					
inward	5.7	8.6	8.5	10.0	15.0
outward	..	-	0.1	0.3	0.5
Taiwan Province of China					
inward	5.8	4.7	6.1	5.9	9.0
outward	0.2	0.3	8.0	9.5	15.9
Thailand					
inward	3.0	5.1	9.6	10.4	20.0
outward	-	-	0.5	1.3	2.0
Viet Nam	-	-	-	-	-
inward	0.2	1.1	4.0	28.5	46.7
outward	..	..	..	..	..
The Pacific	**-**	**-**	**-**	**-**	**-**
inward	**22.7**	**24.8**	**29.0**	**26.9**	**37.6**
outward	**0.3**	**1.0**	**2.1**	**7.3**	**14.6**
Fiji					
inward	29.7	34.4	29.1	41.2	50.4
outward	0.2	1.3	6.3	6.7	19.6
Kiribati					
inward	..	..[a]	1.2	2.6	10.6
outward	..	..	..	0.1	0.1
New Caledonia					
inward	2.4	4.1	3.0	3.0	4.2
outward	..	..	..	..	..
Papua New Guinea					
inward	29.4	28.2	49.1	36.1	53.5
outward	0.4	0.9	0.5	8.3	14.4
Samoa					
inward	1.1	2.2	8.1	14.9	22.6
outward	..	..	..	..	..
Solomon Islands					
inward	24.2	20.3	33.0	38.5	45.7
outward	..	..	..[a]	..[a]	-
Tonga					
inward	..	0.2	0.7	4.8	12.0
outward	..	..	0.1	0.1	0.8
Tuvalu					
inward	..	..	..	2.7	4.4
outward	..	..	..	..	..
Vanuatu					
inward	29.0	52.3	71.8	114.4	175.9
outward	..	..	..	..	..
Central and Eastern Europe					
inward	**..**	**0.2**	**1.7**	**5.4**	**18.9**
outward	**..**	**..**	**0.4**	**0.9**	**2.7**
Albania					
inward	..	..	..	8.7	15.4
outward	..	..	..	2.0	2.2
Belarus					
inward	..	..	..	0.5	11.9
outward	..	..	..	0.1	0.2
Bosnia and Herzegovina					
inward	..	..	..	1.1	8.1
outward	..	..	..	0.7	0.9
Bulgaria					
inward	..	..	0.5	3.4	26.4
outward	..	..	..	0.8	0.7
Croatia					
inward	..	..	..	2.5	27.1
outward	..	..	..	3.7	3.9
Czech Republic					
inward	..	..	3.9	14.1	42.6
outward	..	..	..	0.7	1.5
Estonia					
inward	..	..	..	14.1	53.2
outward	..	..	..	1.4	5.2
Hungary					
inward	..	0.2	1.7	26.7	43.4
outward	..	..	0.6	1.1	4.5
Latvia					
inward	..	..	..	12.5	29.1
outward	..	..	..	4.7	3.4

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Annex table B.6. Inward and outward FDI stocks as a percentage of gross domestic product, by region and economy, 1980, 1985, 1990, 1995 and 2000 (concluded)

(Per cent)

Region/economy	1980	1985	1990	1995	2000
Lithuania					
inward	..	..	..	5.8	20.6
outward	..	..	..	-	0.3
Moldova, Republic of					
inward	..	..	..	6.5	35.7
outward	..	..	..	1.3	1.5
Poland					
inward	..	..	0.2	6.2	21.3
outward	..	..	0.2	0.4	0.6
Romania					
inward	..	..	2.0	3.2	17.7
outward	..	..	0.2	0.3	0.3
Russian Federation					
inward	..	..	..	1.6	7.7
outward	..	..	..	0.9	4.7
Slovakia					
inward	..	..	0.5	4.4	24.2
outward	..	..	..	0.5	1.9
Slovenia					
inward	..	..	3.8	9.4	15.5
outward	..	..	1.5	2.6	4.4
TFYR Macedonia					
inward	..	..	..	0.7	10.9
outward	..	..	..	..	0.1
Ukraine					
inward	..	..	..	2.5	12.1
outward	..	..	..	0.3	0.3
Yugoslavia					
inward	..	..	..	2.7	15.6
outward	..	..	..	..	..
Memorandum					
Least developed countries [b]					
inward	**4.2**	**5.1**	**5.7**	**11.3**	**19.4**
outward	**0.6**	**2.6**	**1.1**	**1.9**	**2.6**
Oil-exporting countries [c]					
inward	**1.7**	**9.8**	**12.2**	**14.7**	**19.9**
outward	**0.4**	**0.7**	**2.6**	**2.2**	**2.7**
All developing countries minus China					
inward	**10.9**	**15.4**	**13.6**	**14.7**	**30.6**
outward	**..**	**2.0**	**3.1**	**5.5**	**13.9**

Source: UNCTAD, FDI/TNC database.

[a]   Negative stock value. Stock data are estimated by accumulation or subtraction of flows. However, this value is included in the regional and global total.

[b]   Least developed countries include: Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, Cape Verde, Central African Republic, Chad, Comoros, Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, Lao People's Democratic Republic, Lesotho, Liberia, Madagascar, Malawi, Maldives, Mali, Mauritania, Mozambique, Myanmar, Nepal, Niger, Rwanda, Samoa, Sao Tome and Principe, Senegal, Sierra Leone, Solomon Islands, Somalia, Sudan, Togo, Tuvalu, Uganda, United Republic of Tanzania, Vanuatu, Yemen and Zambia.

[c]   Oil-exporting countries include: Cameroon, Algeria, Angola, Bahrain, Brunei Darussalam, Congo, Ecuador, Gabon, Indonesia, Islamic Republic of Iran, Iraq, Kuwait, Libyan Arab Jamahiriya, Nigeria, Oman, Qatar, Saudi Arabia, Syrian Arab Republic, Trinidad and Tobago, United Arab Emirates and Venezuela.

Annex table B.7. Cross-border M&A sales, by region/economy of seller, 1987-2001

(Millions of dollars)

Region/economy	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
TOTAL WORLD	**74 509**	**115 623**	**140 389**	**150 576**	**80 713**	**79 280**	**83 064**	**127 110**	**186 593**	**227 023**	**304 848**	**531 648**	**766 044**	**1 143 816**	**593 960**
Developed economies	**72 787**	**112 749**	**135 305**	**134 239**	**74 048**	**68 349**	**67 622**	**110 632**	**163 950**	**187 616**	**232 085**	**443 200**	**679 481**	**1 056 059**	**496 159**
Western Europe	**13 209**	**34 274**	**48 949**	**67 370**	**38 520**	**45 831**	**40 598**	**57 262**	**79 114**	**88 512**	**121 548**	**194 391**	**370 718**	**610 647**	**228 995**
European Union	**12 761**	**31 012**	**47 358**	**62 133**	**36 676**	**44 761**	**38 537**	**55 280**	**75 143**	**81 895**	**114 591**	**187 853**	**357 311**	**586 521**	**212 960**
Austria	8	253	32	189	244	107	417	540	609	856	2 259	3 551	380	574	9 175
Belgium	919	793	805	4 469	814	493	2 201	1 026	1 710	8 469	5 945	6 865	24 984	7 318	6 897
Denmark	-	218	225	496	272	99	590	570	199	459	566	3 802	4 615	9 122	2 461
Finland	20	80	229	51	463	209	391	550	1 726	1 199	735	4 780	3 144	6 896	490
France	1 426	3 018	3 338	8 183	2 623	9 150	8 497	16 290	7 533	13 575	17 751	16 885	23 834	35 018	14 424
Germany	1 069	1 300	4 301	6 220	3 407	5 521	2 285	4 468	7 496	11 924	11 856	19 047	39 555	246 990	48 641
Greece	-	22	-	115	70	413	52	15	50	493	99	21	191	245	1 854
Ireland	36	205	735	595	282	81	1 453	242	587	724	2 282	729	4 739	5 246	6 151
Italy	621	3 095	3 003	2 165	3 865	3 672	3 754	6 909	4 102	2 764	3 362	4 480	11 237	18 877	9 104
Luxembourg	50	5	-	-	-	-	254	380	280	506	3 492	35	7 360	4 210	2 681
Netherlands	1 256	1 182	3 965	1 484	3 490	9 362	4 779	2 789	3 607	3 538	19 052	19 359	39 010	33 656	27 628
Portugal	9	11	768	213	194	668	356	63	144	793	86	427	211	2 980	409
Spain	938	723	1 593	3 832	5 700	4 668	1 967	3 615	1 257	1 463	4 074	5 700	5 841	22 248	8 713
Sweden	875	192	1 849	4 489	2 478	2 455	1 844	6 016	9 451	3 863	3 327	11 093	59 676	13 112	5 774
United Kingdom	5 534	19 917	26 515	29 102	13 020	7 863	9 699	11 807	36 392	31 271	39 706	91 081	132 534	180 029	68 558
Other Western Europe	**448**	**3 262**	**1 591**	**5 237**	**1 844**	**1 070**	**2 061**	**1 982**	**3 971**	**6 617**	**6 958**	**6 538**	**13 407**	**24 126**	**16 035**
Andorra	-	-	-	-	-	-	-	-	-	-	-	-	6	16	2
Gibraltar	-	-	-	-	-	-	-	-	-	9	-	-	8	88	157
Guernsey	-	-	-	-	4	-	-	-	-	-	-	-	26	-	-
Iceland	-	-	-	-	1	-	-	-	-	4	-	-	-	-	-
Isle of Man	-	-	-	-	-	-	-	-	-	-	-	-	36	42	85
Jersey	-	-	-	-	-	-	-	-	-	-	-	-	31	14	181
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-	9	-	-	-
Malta	-	-	-	-	-	-	-	-	-	-	-	3	250	-	-
Monaco	-	669	21	-	-	-	-	-	8	-	752	-	276	19	22
Norway	10	239	601	668	843	487	1 887	397	271	2 198	2 660	1 182	8 703	10 613	3 080
Switzerland	438	2 353	969	4 569	997	582	174	1 585	3 692	4 407	3 545	5 344	4 113	13 334	12 508
North America	**57 918**	**72 641**	**79 233**	**60 427**	**31 884**	**18 393**	**22 291**	**49 093**	**64 804**	**78 907**	**90 217**	**225 980**	**275 884**	**401 429**	**226 798**
Canada	6 153	8 737	10 412	5 731	3 658	2 554	2 313	4 364	11 567	10 839	8 510	16 432	23 950	77 079	41 918
United States	51 765	63 904	68 821	54 697	28 226	15 839	19 978	44 730	53 237	68 069	81 707	209 548	251 934	324 350	184 880
Other developed economies	**1 660**	**5 834**	**7 123**	**6 442**	**3 644**	**4 125**	**4 732**	**4 277**	**20 032**	**20 197**	**20 320**	**22 829**	**32 879**	**43 983**	**40 365**
Australia	1 545	4 380	4 704	2 545	2 592	2 446	3 191	2 975	17 360	13 099	14 794	14 737	11 996	21 699	16 879
Israel	-	-	134	44	58	293	18	235	303	541	1 097	1 754	2 854	2 346	4 452
Japan	27	29	1 612	148	178	230	93	750	541	1 719	3 083	4 022	16 431	15 541	15 183
New Zealand	89	1 320	674	3 704	815	1 157	1 430	317	1 828	4 839	1 346	2 316	1 598	4 397	3 851
Developing economies	**1 721**	**2 875**	**5 057**	**16 052**	**5 786**	**8 198**	**14 265**	**15 030**	**16 493**	**35 727**	**66 999**	**82 668**	**74 003**	**70 610**	**85 813**
Africa	**160**	**-**	**1 039**	**485**	**47**	**388**	**1 806**	**342**	**840**	**1 805**	**4 346**	**2 607**	**3 090**	**3 199**	**15 524**
North Africa	**143**	**-**	**24**	**-**	**1**	**139**	**242**	**100**	**10**	**211**	**680**	**456**	**914**	**956**	**2 916**
Algeria	-	-	-	-	1	-	-	-	-	-	-	-	42	-	-
Egypt	143	-	24	-	-	131	177	17	10	171	102	48	738	127	660
Morocco	-	-	-	-	-	-	64	83	-	40	578	5	123	528	2 211
Sudan	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-
Tunisia	-	-	-	-	-	-	-	-	-	-	-	402	11	301	45
Other Africa	**17**	**-**	**1 015**	**485**	**46**	**249**	**1 565**	**241**	**830**	**1 595**	**3 666**	**2 151**	**2 176**	**2 243**	**12 608**
Angola	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19

Annex table B.7. Cross-border M&A sales, by region/economy of seller, 1987-2001 (continued)

(Millions of dollars)

Region/economy	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Botswana	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cameroon	-	-	-	-	-	-	-	-	4	11	4	-	-	-	70
Cape Verde	-	-	-	-	-	-	-	-	-	-	-	-	83	-	-
Central African Republic	-	-	-	-	-	-	4	-	2	1	-	-	1	-	-
Chad	-	-	-	-	-	-	-	-	-	-	-	-	21	-	-
Congo	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Côte d'Ivoire	-	-	-	-	-	-	-	-	61	14	194	-	-	8	-
Dem. Rep. of the Congo	-	-	-	-	-	-	-	-	23	15	-	-	-	-	-
Ethiopia	-	-	-	448	-	-	-	-	-	89	-	-	36	-	-
Gabon	-	-	-	-	-	-	-	-	-	-	-	-	-	22	-
Ghana	-	-	-	-	-	-	-	1	4	48	39	-	38	4	1
Guinea	-	15	-	-	-	-	-	-	39	50	52	-	-	-	-
Kenya	-	-	-	-	-	-	-	-	18	25	-	-	-	18	300
Madagascar	-	-	-	-	-	-	-	-	-	58	-	-	4	-	-
Malawi	-	-	-	-	-	-	-	-	-	60	-	10	-	-	-
Mali	-	-	-	-	-	-	-	-	-	1	-	-	-	132	14
Mauritania	-	-	-	-	-	-	-	-	-	-	-	-	-	-	48
Mauritius	-	-	-	-	-	-	-	-	-	-	10	-	-	261	30
Mozambique	-	-	-	-	-	-	-	40	-	11	3	13	1	-	10
Namibia	-	-	-	-	36	-	-	-	-	-	-	-	-	-	8
Nigeria	-	-	1 000	-	-	-	-	-	-	-	-	12	18	15	1
Rwanda	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-
Senegal	-	-	-	-	-	-	-	-	-	-	107	-	66	6	-
Sierra Leone	17	-	-	-	-	-	34	-	-	-	-	-	-	-	13
South Africa	-	-	-	-	10	211	1 506	187	640	1 106	2 664	1 932	1 902	1 171	11 916
Swaziland	-	-	-	37	-	-	-	-	-	-	387	-	-	-	4
Uganda	-	-	-	-	-	-	-	-	-	55	29	11	11	32	-
United Rep. of Tanzania	-	-	-	-	-	-	21	-	2	17	1	23	-	133	-
Zambia	-	-	-	-	-	-	-	12	18	27	173	150	1	415	120
Zimbabwe	-	-	-	-	-	38	-	1	1	7	2	-	24	5	53
Latin America and the Caribbean	**1 305**	**1 305**	**1 929**	**11 494**	**3 529**	**4 196**	**5 110**	**9 950**	**8 636**	**20 508**	**41 103**	**63 923**	**41 964**	**45 224**	**35 837**
South America	**196**	**1 148**	**322**	**7 319**	**2 901**	**2 109**	**2 840**	**7 324**	**6 509**	**16 910**	**25 439**	**46 834**	**39 033**	**35 584**	**16 174**
Argentina	-	60	27	6 274	302	1 164	1 803	1 315	1 869	3 611	4 635	10 396	19 407	5 273	5 431
Bolivia	-	-	15	26	-	-	-	-	821	273	911	180	232	19	-
Brazil	196	287	2	217	158	174	624	367	1 761	6 536	12 064	29 376	9 357	23 013	7 003
Chile	-	38	260	434	338	517	276	891	717	2 044	2 427	1 595	8 361	2 929	2 830
Colombia	-	764	-	341	49	31	8	1 248	67	2 399	2 516	1 780	302	1 589	170
Ecuador	-	-	-	-	-	49	-	44	35	105	27	79	214	153	6
Guyana	-	-	-	-	7	-	-	-	-	-	1	-	23	-	-
Paraguay	-	-	-	17	-	-	-	-	-	27	2	11	-	-	67
Peru	-	-	-	-	15	174	62	3 082	945	844	911	162	861	65	555
Suriname	-	-	-	-	-	-	-	-	-	-	-	-	-	107	3
Uruguay	-	-	18	-	-	-	5	40	19	-	-	-	-	27	36
Venezuela	-	-	-	11	2 032	-	62	337	278	1 072	1 946	3 220	276	2 409	73
Other Latin America and Caribbean	**1 110**	**157**	**1 607**	**4 176**	**628**	**2 088**	**2 270**	**2 627**	**2 127**	**3 598**	**15 663**	**17 089**	**2 931**	**9 640**	**19 663**
Antigua and Barbuda	-	-	-	-	-	-	-	-	-	-	-	24	-	5	13
Aruba	-	-	-	-	-	-	-	-	-	-	23	-	-	-	-
Bahamas	30	83	27	120	210	915	79	214	2	104	32	28	-	25	198
Barbados	-	-	-	-	189	-	-	4	6	64	-	-	-	-	1
Belize	-	-	-	-	-	-	-	-	-	-	-	62	-	3	62

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Annex table B.7. Cross-border M&A sales, by region/economy of seller, 1987-2001 (continued)

(Millions of dollars)

Region/economy	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Bermuda	1 079	-	214	1 296	50	4	52	50	251	1 277	5 601	11 635	924	3 596	683
Cayman Islands	-	5	374	170	138	41	-	-	-	245	-	-	122	54	8
Costa Rica	-	-	64	3	-	-	1	17	96	27	28	2	71	21	-
Cuba	-	-	-	-	-	-	-	-	299	-	300	38	-	477	8
Dominican Republic	-	-	-	-	-	-	-	-	-	46	-	978	673	464	-
El Salvador	-	-	-	-	-	-	-	-	40	-	41	28	-	-	168
Grenada	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-
Guatemala	-	-	-	3	3	-	29	-	-	26	30	582	101	13	121
Haiti	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-
Honduras	-	-	-	-	5	-	-	1	-	-	-	367	-	-	537
Jamaica	-	54	395	108	-	-	62	262	-	12	-	34	-	314	525
Mexico	1	-	533	2 326	10	961	1 864	1 913	719	1 428	7 927	3 001	859	3 965	17 017
Netherlands Antilles	-	-	-	8	-	-	-	2	291	-	-	86	-	-	89
Nicaragua	-	-	-	-	-	-	-	-	-	23	42	-	11	115	83
Panama	-	15	-	-	-	-	6	73	9	14	652	216	151	130	8
Saint Kitts and Nevis	-	-	-	-	-	-	-	-	-	78	-	-	-	-	-
Puerto Rico	-	-	-	-	17	142	177	-	-	-	205	-	6	174	108
Trinidad and Tobago	-	-	-	-	6	22	-	2	-	-	19	4	13	284	34
Virgin Islands (United Kingdom)	-	-	-	143	-	-	-	89	412	254	-	-	-	-	-
Asia	**256**	**1 569**	**2 089**	**4 073**	**2 182**	**3 614**	**7 347**	**4 701**	**6 950**	**13 368**	**21 293**	**16 097**	**28 839**	**22 182**	**34 452**
West Asia	-	**59**	**60**	**113**	**131**	**203**	**71**	**49**	**222**	**403**	**368**	**82**	**335**	**970**	**1 323**
Abu Dhabi	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bahrain	-	-	-	-	-	58	4	-	-	-	-	-	36	161	2
Cyprus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	43
Jordan	-	-	-	-	-	-	-	-	26	-	-	-	-	567	-
Kuwait	-	-	-	-	78	-	6	-	-	-	-	-	-	-	20
Lebanon	-	-	-	-	43	-	-	-	-	-	168	11	28	54	163
Oman	-	-	-	-	-	-	15	-	-	7	-	-	-	-	-
Qatar	-	-	-	-	-	24	12	-	-	-	-	-	-	2	-
Saudi Arabia	-	-	2	-	-	-	-	-	8	26	-	-	-	-	-
Syrian Arab Republic	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-
Turkey	-	59	58	113	9	116	35	49	188	370	144	71	68	182	1 019
United Arab Emirates	-	-	-	-	-	-	-	-	-	-	56	-	200	4	76
Yemen	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-
Central Asia	-	-	-	-	-	-	**9**	-	**450**	**3 221**	**2 340**	**174**	**73**	**107**	**15**
Armenia	-	-	-	-	-	-	-	-	-	-	-	173	29	-	-
Azerbaijan	-	-	-	-	-	-	-	-	-	-	-	-	-	36	-
Georgia	-	-	-	-	-	-	-	-	-	1	3	1	-	1	-
Kazakhstan	-	-	-	-	-	-	9	-	450	3 216	2 337	-	40	70	13
Uzbekistan	-	-	-	-	-	-	-	-	-	4	-	-	4	-	2
South, East and South-East Asia	**256**	**1 510**	**2 029**	**3 960**	**2 051**	**3 411**	**7 267**	**4 652**	**6 278**	**9 745**	**18 586**	**15 842**	**28 431**	**21 105**	**33 114**
Bangladesh	-	-	-	-	-	-	-	-	-	-	-	33	-	-	-
Brunei Darussalam	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cambodia	-	-	-	8	-	-	-	-	-	0	1	-	-	-	-
China	181	1 046	826	-	125	221	561	715	403	1 906	1 856	798	2 395	2 247	2 325
Hong Kong, China	-	-	-	2 620	568	1 674	5 308	1 602	1 703	3 267	7 330	938	4 181	4 793	10 362
India	29	100	150	-	-	35	96	385	276	206	1 520	361	1 044	1 219	1 037
Indonesia	-	-	-	5	149	233	169	206	809	530	332	683	1 164	819	3 529
Korea, Democratic People's Republic of	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-
Korea, Republic of	-	-	68	-	673	-	2	1	192	564	836	3 973	10 062	6 448	3 648

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Annex table B.7. Cross-border M&A sales, by region/economy of seller, 1987-2001 (concluded)

(Millions of dollars)

Region/economy	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Lao People's Dem. Rep.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	269
Macao, China	-	-	-	-	29	-	10	-	-	-	-	-	-	-	-
Malaysia	-	20	701	86	128	46	518	443	98	768	351	1 096	1 166	441	1 449
Mongolia	-	-	-	-	-	-	-	1	-	-	260	-	1	-	-
Myanmar	-	-	-	-	-	-	10	-	9	-	-	-	-	-	-
Nepal	-	-	-	-	-	-	2	-	13	-	-	-	-	-	-
Pakistan	25	45	161	1	-	22	5	-	-	1 124	80	2 259	6	6	107
Philippines	21	262	114	15	63	404	136	828	1 208	462	4 157	1 905	1 523	366	2 063
Singapore	-	-	-	1 143	237	276	362	355	1 238	593	294	468	2 958	1 532	4 871
Sri Lanka	-	-	-	1	-	-	30	10	126	35	275	96	22	2	-
Taiwan Province of China	-	38	9	11	-	3	16	16	42	50	601	24	1 837	644	2 493
Thailand	-	-	-	70	79	498	42	89	161	234	633	3 209	2 011	2 569	957
Viet Nam	-	-	-	-	-	-	-	2	1	6	63	-	59	19	4
The Pacific	-	-	-	-	28	-	2	37	67	46	257	41	110	5	-
Cook Islands	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
Fiji	-	-	-	-	-	-	-	-	-	5	-	-	4	-	-
French Polynesia	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-
Marshall Islands	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Papua New Guinea	-	-	-	-	28	-	2	36	16	39	257	41	106	-	-
Solomon Islands	-	-	-	-	-	-	-	1	51	-	-	-	-	-	-
Vanuatu	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-
Central and Eastern Europe	-	-	27	285	880	2 733	1 178	1 378	6 032	3 649	5 631	5 116	10 357	17 147	11 607
Albania	-	-	-	-	-	-	-	-	1	-	-	-	4	16	-
Bosnia and Herzegovina	-	-	-	-	-	-	-	-	-	-	-	-	45	25	-
Bulgaria	-	-	-	-	-	-	20	90	32	71	497	61	1 133	582	11
Croatia	-	-	-	-	-	-	23	45	94	48	61	16	1 164	146	676
Czech Republic	-	-	-	-	-	43	226	408	2 366	507	671	362	2 402	1 924	1 968
Former Czechoslovakia	-	-	-	-	477	780	-	-	-	-	-	-	-	-	-
Estonia	-	-	-	-	-	-	-	139	28	23	64	149	114	131	88
Hungary	-	-	24	226	267	392	382	-	2 106	1 594	298	612	537	1 117	1 370
Latvia	-	-	-	-	-	-	-	3	23	57	63	11	20	342	39
Lithuania	-	-	-	-	-	-	-	9	-	-	12	632	427	173	193
Moldova, Republic of	-	-	4	-	-	-	-	-	-	2	-	-	-	27	-
Poland	-	-	-	-	74	1 396	197	357	983	993	808	1 789	3 707	9 316	3 493
Romania	-	-	-	59	-	33	309	181	229	94	391	1 284	447	536	66
Russian Federation	-	-	-	-	-	-	-	63	100	95	2 681	147	180	758	2 039
Slovakia	-	-	-	-	-	-	21	83	4	138	38	54	41	1 849	1 194
Slovenia	-	-	-	-	-	-	-	41	18	30	133	-	14	34	381
TFYR of Macedonia	-	-	-	-	-	-	-	-	-	-	-	-	45	-	328
Ukraine	-	-	-	-	62	-	-	-	66	30	1	-	136	151	116
Yugoslavia	-	-	-	-	-	88	-	-	-	-	-	-	-	-	2
Multinational[a]	-	-	-	-	-	-	-	30	100	-	-	665	2 162	-	-

Source: UNCTAD, cross-border M&A database.

a   Involving sellers in more than two economies.

Note: The data cover deals involving the acquisition of an equity stake of more than 10 per cent.

Annex table B.8. Cross-border M&A purchases, by region/economy of purchaser, 1987-2001

(Millions of dollars)

Region/economy	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
TOTAL WORLD	74 509	115 623	140 389	150 576	80 713	79 280	83 064	127 110	186 593	227 023	304 848	531 648	766 044	1 143 816	593 960
Developed economies	71 560	113 389	135 781	143 070	77 435	72 995	72 153	112 401	173 139	196 735	269 276	508 916	700 808	1 087 638	534 151
Western Europe	33 068	49 690	74 265	92 567	42 473	49 753	43 016	75 943	92 539	110 628	154 036	324 658	539 246	852 735	348 738
European Union	32 617	40 141	71 365	86 525	39 676	44 391	40 531	63 857	81 417	96 674	142 108	284 373	517 155	801 746	327 252
Austria	-	-	21	236	208	62	169	23	157	4	242	302	1 771	2 254	1 171
Belgium	20	188	309	813	222	625	181	3 107	4 611	3 029	2 053	2 225	13 357	16 334	16 951
Denmark	16	63	261	767	573	258	372	172	152	638	1 492	1 250	5 654	4 590	4 163
Finland	58	172	979	1 136	568	8	98	417	471	1 464	1 847	7 333	2 236	20 192	7 573
France	3 244	5 486	17 594	21 828	10 380	12 389	6 596	6 717	8 939	14 755	21 153	30 926	88 656	168 710	59 169
Germany	1 634	1 857	3 468	6 795	6 894	4 409	4 412	7 608	18 500	17 984	13 190	66 728	85 530	58 671	57 011
Greece	-	-	100	-	16	19	127	21	-	-	2 018	1 439	287	3 937	1 267
Ireland	67	548	1 174	730	390	358	457	1 447	1 166	2 265	1 826	3 196	4 198	5 575	2 063
Italy	3 327	1 373	1 961	5 314	816	5 167	816	1 622	4 689	1 627	4 196	15 200	12 801	16 932	11 135
Luxembourg	59	-	-	734	1 023	415	1 555	244	51	1 037	973	891	2 847	6 040	4 537
Netherlands	2 716	2 350	3 292	5 619	4 251	5 304	2 848	8 714	6 811	12 148	18 472	24 280	48 909	52 430	31 160
Portugal	-	-	14	17	181	502	14	144	329	96	612	4 522	1 434	2 657	668
Spain	212	582	1 318	4 087	2 773	983	1 053	3 828	460	3 458	8 038	15 031	25 452	39 443	11 253
Sweden	1 645	3 104	2 645	12 572	2 882	1 813	1 923	3 118	5 432	2 058	7 625	15 952	9 914	21 559	7 365
United Kingdom	19 621	24 339	38 229	25 873	8 501	12 080	19 911	26 675	29 641	36 109	58 371	95 099	214 109	382 422	111 764
Other Western Europe	452	9 549	2 900	6 043	2 797	5 362	2 485	12 086	11 122	13 954	11 928	40 285	22 091	50 989	21 486
Gibraltar	-	-	-	-	3	-	-	-	-	-	-	-	-	-	18
Iceland	-	-	-	-	-	7	-	-	-	-	-	-	49	-	160
Isle of Man	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50
Jersey	-	-	-	-	-	-	-	-	-	-	-	-	6	-	730
Liechtenstein	-	-	-	160	-	-	-	62	10	-	142	-	8	-	-
Malta	-	-	-	-	-	-	7	-	-	-	-	-	4	-	43
Monaco	-	-	-	-	35	113	-	4	-	-	-	-	-	318	102
Norway	53	19	126	1 380	1 301	270	143	643	1 276	3 956	1 212	1 170	1 382	7 376	1 510
Switzerland	399	9 530	2 774	4 503	1 458	4 973	2 336	11 378	9 836	9 998	10 574	39 115	20 691	43 228	18 892
North America	32 138	38 577	47 862	30 766	20 702	17 190	25 534	33 610	69 833	69 501	99 709	173 039	138 881	198 915	135 019
Canada	3 727	14 397	9 002	3 139	4 106	2 155	4 129	5 079	12 491	8 757	18 840	35 618	18 571	39 646	38 980
United States	28 412	24 181	38 860	27 627	16 596	15 035	21 405	28 531	57 343	60 744	80 869	137 421	120 310	159 269	96 039
Other developed economies	6 353	25 122	13 655	19 736	14 260	6 052	3 603	2 848	10 767	16 606	15 531	11 219	22 681	35 988	50 395
Australia	2 513	9 355	5 561	3 806	1 472	676	1 852	1 602	6 145	9 283	11 745	8 147	10 138	10 856	32 506
Israel	-	-	-	28	28	61	393	143	106	484	254	791	605	2 361	781
Japan	3 156	13 514	7 525	14 048	11 877	4 392	1 106	1 058	3 943	5 660	2 747	1 284	10 517	20 858	16 131
New Zealand	685	2 253	569	1 854	883	923	252	44	573	1 180	785	997	1 421	1 913	976
Developing economies	2 928	2 204	3 995	7 181	3 258	6 264	10 784	14 360	13 372	29 646	35 210	21 717	63 406	48 496	55 719
Africa	415	24	5	146	430	1 746	406	4 221	645	2 148	2 800	2 678	5 762	6 659	3 041
North Africa	-	-	-	-	-	309	54	9	11	8	-	3	40	213	117
Egypt	-	-	-	-	-	-	18	-	-	-	-	-	7	213	-
Libyan Arab Jamahiriya	-	-	-	-	-	-	-	5	-	-	-	3	-	-	45
Morocco	-	-	-	-	-	309	36	4	-	8	-	-	10	-	72
Tunisia	-	-	-	-	-	-	-	-	11	-	-	-	23	-	-
Other Africa	415	24	5	146	430	1 436	352	4 212	634	2 140	2 800	2 675	5 722	6 446	2 924
Botswana	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-
Central African Republic	-	-	-	-	-	-	-	-	-	63	-	-	-	-	-

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Annex table B.8. Cross-border M&A purchases, by region/economy of purchaser, 1987-2001 (continued)

(Millions of dollars)

Region/economy	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Gabon	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-
Ghana	-	-	-	-	229	-	-	-	35	506	-	137	-	3	9
Kenya	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Liberia	-	-	-	-	-	-	-	-	-	15	34	7	-	-	4
Mauritius	-	-	-	-	-	-	-	-	-	4	-	7	7	-	-
Namibia	-	-	-	-	-	-	-	-	-	11	-	-	-	-	8
Nigeria	-	-	-	-	-	-	-	-	2	-	-	-	-	-	6
South Africa	315	24	5	146	201	1 436	352	4 196	593	1 522	2 766	2 514	5 715	6 393	2 594
United Republic of Tanzania	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-
Uganda	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zambia	-	-	-	-	-	-	-	-	-	15	-	-	-	43	-
Zimbabwe	-	-	-	-	-	-	-	16	-	4	-	16	-	-	304
Latin America and the Caribbean	**142**	**100**	**992**	**1 597**	**387**	**1 895**	**2 507**	**3 653**	**3 951**	**8 354**	**10 720**	**12 640**	**44 767**	**18 614**	**27 380**
South America	-	**10**	**91**	**130**	**269**	**594**	**1 795**	**682**	**3 405**	**5 939**	**6 038**	**9 510**	**3 874**	**2 191**	**3 411**
Argentina	-	-	-	10	181	-	71	62	1 984	321	1 170	3 545	1 313	675	343
Bolivia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brazil	-	2	2	-	45	63	439	158	379	1 167	2 357	3 517	1 908	429	2 774
Chile	-	-	-	-	-	443	828	293	794	3 827	1 497	591	322	507	133
Colombia	-	-	-	-	-	-	11	10	91	272	157	436	102	203	19
Ecuador	-	-	-	-	-	-	-	22	50	45	-	-	-	-	-
Peru	-	-	-	-	-	-	-	7	62	237	44	47	220	62	28
Suriname	-	-	-	-	2	8	-	120	-	-	-	-	-	-	-
Uruguay	-	-	-	-	-	-	-	-	3	-	-	25	-	1	-
Venezuela	-	7	89	120	41	80	446	10	42	71	813	1 348	9	314	115
Other Latin America and Caribbean	**142**	**91**	**901**	**1 467**	**118**	**1 300**	**712**	**2 971**	**546**	**2 415**	**4 682**	**3 130**	**40 893**	**16 423**	**23 969**
Bahamas	-	83	-	1	-	17	-	9	142	344	23	51	459	748	-
Barbados	-	-	-	-	-	-	-	-	-	-	15	2	-	49	-
Belize	-	-	-	-	-	-	-	-	25	-	-	63	318	-	13
Bermuda	9	-	24	483	115	130	55	1	17	703	1 189	2 139	35 151	11 492	20 792
Cayman Islands	-	-	-	-	-	-	112	189	-	207	99	99	77	24	1 539
Costa Rica	-	-	-	-	-	-	24	530	-	-	-	-	-	-	-
Cuba	-	-	-	-	-	-	-	-	2	7	3	-	-	-	8
Dominican Republic	-	-	-	-	-	-	-	8	-	-	-	-	109	-	-
El Salvador	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Guatemala	-	-	-	-	-	-	-	-	-	-	48	-	-	-	-
Jamaica	-	-	-	-	-	10	-	-	4	-	-	-	-	-	-
Mexico	-	-	-	16	3	888	309	2 190	196	867	3 154	673	2 216	4 231	363
Netherlands Antilles	132	8	837	680	3	11	33	-	99	7	7	-	308	2	-
Panama	-	-	16	288	-	-	-	-	-	17	89	100	2 215	5	33
Puerto Rico	-	-	-	-	-	-	-	-	-	-	-	-	-	125	-
Trinidad and Tobago	-	-	24	-	-	245	175	44	62	260	56	5	40	5	-
Virgin Islands (United Kingdom)	2	-	-	-	-	-	-	-	-	-	-	-	-	489	473
Asia	**2 372**	**2 080**	**2 998**	**5 438**	**2 441**	**2 624**	**7 843**	**6 486**	**8 755**	**19 136**	**21 690**	**6 399**	**12 873**	**22 895**	**25 298**
West Asia	**170**	**124**	**253**	**2 112**	**113**	**105**	**1 013**	**1 199**	**1 697**	**1 589**	**3 797**	**399**	**1 538**	**1 750**	**454**
Abu Dhabi	-	-	-	528	-	-	-	-	-	-	-	-	-	-	-
Bahrain	-	-	168	1 537	-	-	-	-	-	-	1 472	45	563	79	274
Cyprus	-	-	-	-	-	-	811	300	-	41	1 881	-	73	15	32
Iran, Islamic Republic of	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Jordan	-	-	-	-	-	-	-	-	-	-	-	-	-	22	-
Kuwait	170	-	83	-	112	-	21	-	4	648	-	-	119	32	105
Lebanon	-	-	-	-	-	-	-	-	3	-	58	-	-	-	-
Oman	-	-	-	-	-	-	-	-	-	-	8	55	-	-	-
Qatar	-	-	-	-	-	-	-	-	-	42	-	-	-	2	-

Annex table B.8. Cross-border M&A purchases, by region/economy of purchaser, 1987-2001 (concluded)

(Millions of dollars)

Region/economy	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Saudi Arabia	-	-	-	-	-	100	182	630	1 671	350	334	217	3	1 550	39
Turkey	-	-	2	-	-	-	-	11	19	356	43	4	88	48	-
United Arab Emirates	-	124	-	48	1	-	-	257	-	153	2	77	655	2	4
Yemen	-	-	-	-	-	5	-	-	-	-	-	-	37	-	-
Central Asia	-	-	-	-	-	-	-	-	**450**	-	-	-	-	**6**	-
Kazakhstan	-	-	-	-	-	-	-	-	450	-	-	-	-	6	-
South, East and South-East Asia	**2 202**	**1 956**	**2 745**	**3 325**	**2 329**	**2 518**	**6 830**	**5 287**	**6 608**	**17 547**	**17 893**	**6 001**	**11 335**	**21 139**	**24 844**
Afghanistan	-	-	-	-	-	13	-	-	-	-	-	-	-	-	-
Bangladesh	-	-	-	-	-	-	-	-	12	-	-	-	-	-	-
Brunei Darussalam	-	-	-	-	-	-	50	-	31	80	-	-	-	-	-
China	-	17	202	60	3	573	202	307	249	189	799	1 276	101	470	452
Hong Kong, China	2 166	1 649	773	1 198	1 342	1 263	4 113	2 267	2 299	2 912	8 402	2 201	2 321	5 768	3 012
India	-	22	11	-	1	3	485	109	29	451	1 287	11	126	910	2 195
Indonesia	-	260	-	49	3	16	219	32	163	218	676	39	243	1 445	-
Korea, Dem. People's Republic of	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Korea, Republic of	-	-	235	33	187	72	74	500	1 392	1 659	2 379	187	1 097	1 712	175
Malaysia	-	-	27	144	149	148	774	812	1 122	9 635	894	1 059	1 377	761	1 375
Macao, China	-	-	-	-	-	-	-	-	-	-	-	-	450	-	-
Philippines	-	-	-	-	14	-	25	42	153	190	54	1	330	75	254
Pakistan	-	-	-	-	-	-	-	-	-	-	-	-	-	6	4
Singapore	7	8	764	438	570	294	849	1 174	892	2 018	2 888	530	4 720	8 847	16 516
Sri Lanka	-	-	-	-	-	-	-	2	-	-	-	26	8	-	-
Taiwan Province of China	29	-	464	1 385	59	131	38	30	122	4	433	628	408	1 138	161
Thailand	-	-	269	18	-	1	-	12	144	180	55	43	154	5	699
Viet Nam	-	-	-	-	-	6	-	1	-	11	27	-	-	-	-
The Pacific	-	-	-	-	-	-	**28**	-	**22**	**8**	-	-	**4**	**328**	-
Fiji	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-
Nauru	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Papua New Guinea	-	-	-	-	-	-	28	-	13	8	-	-	-	328	-
Vanuatu	-	-	-	-	-	-	-	-	9	-	-	-	-	-	-
Central and Eastern Europe	**8**	-	**6**	-	**14**	**22**	**113**	**329**	**59**	**504**	**275**	**1 008**	**1 549**	**1 694**	**2 225**
Bulgaria	8	-	-	-	-	-	-	-	-	3	60	-	797	8	-
Croatia	-	-	-	-	-	-	-	-	-	1	-	-	3	22	43
Czech Republic	-	-	-	-	-	-	-	-	-	1	100	-	3	775	-
Former Czechoslovakia	-	-	6	-	-	-	19	51	48	176	60	142	13	-	-
Estonia	-	-	-	-	-	4	-	22	-	-	1	12	-	-	-
Hungary	-	-	-	-	-	-	62	-	-	15	6	64	118	2	41
Latvia	-	-	-	-	-	-	18	-	2	-	-	-	-	379	1 331
Lithuania	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
Poland	-	-	-	-	14	-	8	11	8	23	45	465	132	118	324
Romania	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
Russian Federation	-	-	-	-	-	18	-	245	-	242	2	301	52	225	371
Slovakia	-	-	-	-	-	-	-	1	2	42	1	-	424	24	91
Slovenia	-	-	-	-	-	-	-	-	-	-	-	-	4	10	14
TFYR of Macedonia	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-
Ukraine	-	-	-	-	-	-	-	-	-	-	-	23	-	-	1
Unspecified	**13**	**30**	**606**	**325**	**4**	-	**14**	**10**	**23**	**139**	**4**	**8**	**281**	**130**	**7**
Multinational[a]	-	-	-	-	**3**	-	-	**10**	-	-	**83**	-	-	**5 982**	**1 864**

Source: UNCTAD, cross-border M&A database.

a Involving purchasers from more than two economies.

Note: The data cover the deals involving the acquisition of an equity stake of more than 10 per cent.

Annex table B.9. Cross-border M&As, by sector and industry of seller, 1987-2001

(Millions of dollars)

Sector/industry	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	74 509	115 623	140 389	150 576	80 713	79 280	83 064	127 110	186 593	227 023	304 848	531 648	766 044	1 143 816	593 960
Primary	10 795	3 911	1 941	5 170	1 164	3 637	4 201	5 517	8 499	7 935	8 725	10 599	10 000	9 815	28 280
Agriculture, hunting, forestry and fishing	343	1 809	225	221	548	301	406	950	1 019	498	2 098	6 673	656	1 110	316
Mining, quarrying and petroleum	10 452	2 102	1 717	4 949	617	3 336	3 795	4 568	7 480	7 437	6 628	3 926	9 344	8 705	27 964
Manufacturing	42 393	73 727	89 596	75 495	36 176	43 222	43 204	69 321	84 462	88 522	121 379	263 206	288 090	291 654	197 174
Food, beverages and tobacco	3 803	14 462	8 719	12 676	5 127	9 398	7 751	13 528	18 108	6 558	22 053	17 001	28 242	50 247	34 628
Textiles, clothing and leather	617	812	1 720	1 281	731	760	1 173	1 431	2 039	849	1 732	1 632	5 276	2 526	3 510
Wood and wood products	2 013	1 793	9 176	7 765	2 714	1 588	2 031	4 262	4 855	5 725	6 854	7 237	9 456	23 562	13 878
Publishing, printing, and reproduction of recorded media	1 196	11 741	6 544	2 305	353	5 192	1 183	2 747	1 341	10 853	2 607	12 798	10 248	4 875	16 767
Coke, petroleum and nuclear fuel	3 980	17 868	9 151	6 480	5 676	1 596	1 479	4 216	5 644	13 965	11 315	67 280	22 637	45 015	31 167
Chemicals and chemical products	16 836	5 008	18 368	12 275	5 773	5 581	11 393	20 061	26 984	15 430	35 395	31 806	86 389	30 446	26 462
Rubber and plastic products	1 696	3 620	1 387	2 745	574	228	265	997	4 313	3 943	2 306	2 264	3 786	4 723	2 406
Non-metallic mineral products	1 249	2 452	3 887	5 630	1 113	5 410	2 204	5 201	2 726	2 840	6 153	8 100	12 129	11 663	8 359
Metal and metal products	1 459	1 606	6 399	4 426	2 246	2 534	2 252	2 743	2 515	8 728	9 853	8 376	10 825	16 782	12 890
Machinery and equipment	832	2 878	2 078	1 750	1 140	1 087	1 661	3 312	5 103	4 301	7 546	8 918	20 850	8 980	4 073
Electrical and electronic equipment	7 135	6 998	12 771	6 114	8 361	6 198	3 895	3 432	5 581	7 573	7 897	35 819	51 770	53 859	25 732
Precision instruments	1 056	3 596	2 626	3 992	1 112	1 080	4 495	1 882	2 023	3 300	3 322	9 251	7 269	13 518	10 375
Motor vehicles and other transport equipment	315	889	5 215	7 390	995	2 211	2 743	4 988	2 657	4 150	4 189	50 767	18 517	25 272	5 662
Other manufacturing	208	4	1 556	666	261	360	680	522	575	308	158	1 958	696	186	1 266
Tertiary	21 321	37 986	48 851	69 911	43 297	32 384	35 649	52 270	93 632	130 232	174 744	257 843	467 853	842 342	368 506
Electricity, gas, and water	61	116	1 028	609	1 072	1 847	1 783	2 510	12 240	21 274	29 620	32 249	40 843	46 711	21 047
Construction	416	295	813	533	279	651	331	838	1 738	4 410	602	1 434	3 205	5 170	2 167
Trade	4 319	10 013	12 377	9 095	7 904	5 703	7 537	8 753	10 159	27 928	21 664	27 332	55 463	34 918	27 668
Hotels and restaurants	2 304	6 829	3 316	7 263	1 293	1 408	1 412	2 335	3 247	2 416	4 445	10 332	4 836	2 883	6 169
Transport, storage and communications	309	2 182	3 578	14 460	3 757	3 035	6 559	13 540	8 225	17 523	17 736	51 445	167 723	365 673	121 490
Finance	7 360	14 471	14 616	21 722	14 188	13 178	12 168	10 568	31 059	36 693	50 836	83 432	126 710	183 665	122 005
Business services	6 237	3 009	5 264	11 831	5 100	3 808	3 664	8 406	9 715	13 154	26 480	42 497	52 748	137 416	54 319
Public administration and defence	-	-	-	-	-	-	-	-	-	-	111	395	1 769	8	329
Education	-	-	7	5	33	-	421	18	-	4	179	42	66	219	438
Health and social services	-	86	460	469	84	237	261	2 463	946	336	3 396	641	724	751	1 875
Community, social and personal service activities	315	984	7 363	3 858	9 554	2 474	1 404	2 319	12 110	6 494	19 656	7 976	13 724	64 855	10 862
Other services	-	3	30	66	33	44	110	520	3 588	-	19	69	42	73	136
Unknown[a]	-	-	-	-	76	37	10	1	-	334	-	-	101	5	-

Source: UNCTAD, cross-border M&A database.

[a] Includes non-classified establishments.

Note: The data cover the deals involving the acquisition of an equity stake of more than 10 per cent.

Annex table B.10. Cross-border M&As, by sector and industry of purchaser, 1987–2001

(Millions of dollars)

Sector/industry	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	74 509	115 623	140 389	150 576	80 713	79 280	83 064	127 110	186 593	227 023	304 848	531 648	766 044	1 143 816	593 960
Primary	1 425	4 398	2 976	2 131	1 556	2 978	4 155	5 032	7 951	5 684	7 150	5 455	7 397	8 968	6 537
Agriculture, hunting, forestry and fishing	846	2 078	1 466	47	471	204	65	154	182	962	1 541	1 497	241	1 472	784
Mining, quarrying and petroleum	579	2 320	1 511	2 084	1 085	2 775	4 090	4 878	7 769	4 723	5 609	3 958	7 156	7 496	5 753
Manufacturing	50 308	71 747	95 149	79 908	44 985	35 287	36 837	72 549	93 784	88 821	133 202	257 220	287 126	302 507	199 887
Food, beverages and tobacco	4 454	19 774	15 484	13 523	5 212	6 383	7 668	7 872	22 546	9 684	21 439	16 922	33 014	60 189	23 238
Textiles, clothing and leather	259	608	1 636	3 363	1 401	406	3 767	332	1 569	778	1 254	3 062	2 122	3 741	1 129
Wood and wood products	1 374	3 115	5 637	6 717	2 244	1 743	2 933	2 483	6 466	3 143	6 157	13 131	7 138	18 342	12 498
Publishing, printing, and reproduction of recorded media	1 426	8 951	6 518	2 363	689	5 022	1 998	4 866	2 332	7 829	6 774	12 050	13 245	9 365	18 616
Coke, petroleum and nuclear fuel	12 624	15 360	9 384	7 051	6 199	1 442	2 243	3 499	6 679	12 994	11 860	67 665	36 939	40 701	30 971
Chemicals and chemical products	15 405	4 332	19 335	15 260	4 043	5 142	4 605	31 473	28 186	18 555	38 664	34 822	80 865	24 085	22 935
Rubber and plastic products	1 169	3 528	2 609	1 904	411	710	387	176	4 852	659	2 363	2 790	1 105	1 214	1 535
Non-metallic mineral products	2 126	1 865	2 983	6 183	911	3 939	2 404	5 232	2 740	4 585	6 965	8 823	12 494	12 881	8 392
Metal and metal products	1 654	2 729	5 992	3 076	1 874	2 308	2 046	2 475	1 472	13 395	8 512	7 947	10 974	12 713	20 081
Machinery and equipment	2 451	2 288	2 567	1 906	1 171	671	1 239	2 416	3 760	2 463	4 767	4 553	26 325	12 938	20 130
Electrical and electronic equipment	5 737	6 474	17 062	7 190	19 346	5 057	4 608	4 822	7 576	6 660	9 093	29 062	40 893	68 284	29 097
Precision instruments	920	1 251	1 511	2 861	445	619	1 415	1 135	2 809	3 033	4 757	7 209	4 302	6 195	5 875
Motor vehicles and other transport equipment	496	1 470	4 357	8 369	928	1 633	1 437	5 271	2 267	4 411	5 072	48 904	17 038	30 852	5 127
Other manufacturing	214	3	74	143	113	214	88	497	528	633	5 527	280	672	1 007	263
Tertiary	22 776	39 221	42 264	68 423	33 985	40 965	42 028	49 519	84 824	132 414	164 457	268 486	471 497	832 303	387 425
Electricity, gas, and water	66	1 034	771	332	1 072	1 012	1 250	830	10 466	16 616	18 787	27 527	55 111	84 409	17 953
Construction	882	2 740	1 181	257	695	316	177	1 350	1 160	6 955	2 546	1 336	1 787	2 921	1 397
Trade	3 123	4 109	4 356	6 205	3 739	2 870	6 186	5 636	8 854	15 176	16 515	19 624	29 524	19 399	20 238
Hotels and restaurants	331	3 561	1 534	3 066	340	323	569	997	3 402	1 713	2 482	2 799	3 593	2 120	2 895
Transport, storage and communications	560	1 062	5 004	4 785	1 367	1 596	4 048	10 480	6 085	11 424	14 735	30 165	163 928	368 954	112 498
Finance	11 183	13 218	23 402	43 671	22 395	30 406	24 589	24 268	45 368	61 304	82 616	142 066	174 238	241 282	181 234
Business services	5 600	9 888	4 949	6 377	3 100	3 298	3 532	3 972	4 843	17 084	14 721	22 889	35 695	82 790	33 111
Public administration and defence	103	1 952	13	667	-	-	81	-	31	-	102	30	310	17	13
Education	-	-	216	-	4	-	420	-	-	1	98	30	54	107	110
Health and social services	-	14	155	530	41	221	203	154	263	265	321	738	35	513	1 472
Community, social and personal service activities	928	1 640	678	2 469	1 206	835	906	1 332	3 366	1 857	11 000	19 887	7 214	29 784	16 467
Other services	-	3	5	66	27	88	69	500	986	20	534	1 426	8	7	37
Unknown[a]	-	258	-	114	187	50	45	10	34	104	38	488	24	38	110

Source: UNCTAD, cross-border M&A database.

[a] Includes non-classified establishments.

Note: The data cover the deals involving the acquisition of an equity stake of more than 10 per cent.

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