CHAPTER VI

INCREASING FINANCIAL RESOURCES AND INVESTMENT

A. The importance of investment for development

Investment is a key factor in economic growth. Practically all empirical studies of intercountry differences in growth rates suggest that high growth is associated with high investment rates. Recent endogenous growth theories also reinforce the link between investment and growth.¹ They postulate that, when investment is taken in a broad sense, to include not only expenditures on capital goods but also expenditures on technology enhancement (chapter VII) and human capital formation (chapter VIII), there may well not exist diminishing returns to investment. Therefore, countries that devote a high proportion of output to investment may sustain more rapid growth than countries that invest less. Investment, today as much as yesterday, remains crucial to growth.

In a closed economy, with no access to foreign savings, investment is financed solely from domestic savings. However, even in open economies, it remains an empirical regularity that countries that have achieved a high rate of investment also have high rates of domestic savings. This implies that, in most countries with superior investment performance, foreign savings normally play a complementary role in the provision of financial resources for development. They permit domestic investment in a country to exceed its own savings. They may permit the maintenance of consumption or capital formation in countries heavily dependent on particular crops (or other primary products), when crops fail or prices fall drastically. On the other hand, large inflows of foreign savings, especially if raised in international portfolio capital markets or through bank lending, can create problems of financial and macroeconomic stability or debt.

FDI has come to play a growing role during the 1990s within international flows of capital, as shown in Part One. The objective of this chapter is, first, to look at those aspects of TNCs' financial behaviour that may matter for development; secondly, to examine the role of FDI in the supply of financial resources for development and to compare FDI with other private sources of finance; and thirdly, to analyse the impact of FDI, both direct and indirect, on total investment in host countries and to discuss policy options in this regard. This chapter does not distinguish between FDI dollars as regards their different technological content and other positive or negative qualities. In this chapter — and for the purpose of this analysis only — each FDI dollar is assumed to be equal; only its quantitative impact is considered.

B. The financial behaviour of TNCs

TNCs, like other firms, finance their activities internally or externally. Internal resources are profits not distributed as dividends but retained and reinvested. External resources are raised by issuing shares or bonds or taking loans from banks. When choosing modes of financing, TNCs are guided, as all firms are, by cost, control and risk considerations. For example, as regards the cost of financing, debt is normally cheaper than the issue of equity: rates of return on equity capital tend to be higher than international interest rates. However, debt carries its own risks, since it involves interest and amortization payments regardless of the financial results from the use of borrowed funds. The issuance of shares links the payment of dividends to performance. Occasionally, when share prices are high, this may be the most advantageous from the point of view of cost of finance. However, it always involves a dilution of control. For a number of reasons TNCs face a different set of transaction costs, risks and opportunities than domestic companies do. These include geographical dispersion of assets (and liabilities) across countries, and knowledge of, and access to, capital markets of different countries with variable exchange rates and differing regulations as well as to international markets. Consequently, the financial and investment behaviour of TNCs can differ from that of domestic firms.

The financial strategies of TNCs are a complex matter. They reflect the interaction of foreign exchange management, choice of form and source of financing, short- versus long-term financing and needs of financial reporting. Not all components of these strategies are relevant for this chapter. What is relevant concerns primarily the parent company-foreign affiliate relationship as regards finance and the financial behaviour of affiliates. TNCs make their investment and financial decisions on a global basis: they not only produce goods and services globally (or regionally), but also fund themselves globally. In other words, they tend to borrow "wherever in the world funds are cheapest and invest them wherever expected returns are highest" (Caves, 1996, p. 160). They can also direct funds generated internally anywhere in the system to maximize returns. This implies that foreign affiliates are not autonomous in their financial decisions but do their financing within system-wide strategies; indeed, the finance function is typically one of the most centralized functions in TNCs.

TNCs are able to mobilize financial resources from a wide variety of sources. One of these is their own corporate systems. In order to finance an investment in a particular country, a TNC can move excess liquidity from anywhere to anywhere in its corporate system. TNCs also have access to borrowing on international financial markets at low spreads. They also borrow in the financial markets of their home and host countries. Borrowing can take the form of bond issues or long-term bank borrowing. They also can exercise the option of issuing new shares in a number of national markets. The shares issued can be those of a particular affiliate or those of the parent or a holding company. Thus the financing options open are numerous, especially to large TNCs, and their number varies positively with their size and degree of transnationality. This gives TNCs an advantage over uninationalfirms, especially from developing countries, for whom the sourcing of finance is typically more constrained. Only the largest uninational firms from developing countries have access to the international market to finance their investment plans, and typically they can do so only at larger spreads than TNCs.²

Global financing means that firms have to take into account not only relative borrowing costs but also risks related to exchange-rate movements and other factors. By matching assets and liabilities in different currencies, TNCs can minimize the impact of changes in currency values and also risks such as nationalization (remote as it is nowadays). These considerations encourage fund-raising in host countries' financial markets. The share of host country sources in the external funds of foreign affiliates is high: in the case of the United States TNCs, this share, on a stock basis, was 47 per cent in 1996. For Japanese foreign affiliates, the share of host country sources in affiliates' financing on a flow basis was 45 per cent in 1995 (table VI.1). In both cases, however, this role has decreased since 1989 – from 53 per cent for United States³ firms and 57 per cent for Japanese firms.

Table VI.1. Sources of financing^a of foreign affiliates of Japanese TNCs, 1989, 1992 and 1995

	Funds rais	ed in host cour	ntries	Total	Share of host
Host country/region and year	Bonds ^c	Loans ^d	Total	financing ^b	country sources in total financing
		Millions	of dollars		Percentage
1995					
Developing countries	771	10 775	11 546	46 428	24.9
Latin America	139	1 104	1 242	14 867	8.4
Asia	633	8 850	9 483	27 886	34.0
China	4	582	586	1 611	36.4
ASEAN ^e	49	3 768	3 817	12 071	31.6
Newly industrialized economies ^f	569	4 309	4 878	13 470	36.2
West Asia ^g		646	646	654	98.8
Africa ^h	0	174	174	3 021	5.8
Developed countries	28 390	23 037	51 427	92 878	55.4
North America	19 999	16 122	36 121	58 289	62.0
United States	19 514	14 911	34 425	55 073	62.5
Europe	7 824	5 956	13 780	30 174	45.7
European Union	7 824	5 948	13 772	29 911	46.0
Oceania ⁱ	567	959	1 526	4 415	34.6
Total	29 161	33 812	62 973	139 306	45.2
1992					
Developing countries	1 047	9 591	10 638	25 203	42.2
Latin America	84	235	319	3 114	10.3
Asia	963	8 315	9 278	19 154	48.4
ASEAN ^e	38	3 601	3 639	7 775	46.8
Newly industrialized economies ^f	912	4 445	5 357	10 571	50.7
West Asia ^g		528	528	949	55.7
Africa ^h		512	512	1 986	25.8
Developed countries	18 494	20 819	39 313	61 540	63.9
North America	11 931	13 605	25 536	37 981	67.2
United States	11 669	12 883	24 552	36 330	67.6
Europe	6 495	6 320	12 815	19 580	65.4
European Community	6 494	6 263	12 757	18 724	68.1
Oceania ⁱ	68	895	962	3 980	24.2
Total	19 541	30 410	49 951	86 743	57.6
1989					
Developing countries	1 391	6 352	7 743	17 715	43.7
Latin America	588	895	1 483	4 575	32.4
Asia	803	5 273	6 076	10 639	57.1
ASEAN ^e	31	1 195	1 226	3 481	35.2
Newly industrialized economies ^f	747	3 935	4 681	6 812	68.7
West Asia g		147	147	1 540	9.5
Africa ^h	44 -4-	38	38	960	3.9
Developed countries	11 717	21 339	33 056	54 075	61.1
North America	6 658	13 565	20 223	29 680	68.1
United States	6 641	13 024	19 665	28 047	70.1
Europe	5 057	7 229	12 286	20 974	58.6
European Community	5 057	7 121	12 178	19 883	61.2
Oceania ⁱ	2	546	548	3 422	16.0
Total	13 10 8	27 691	40 799	71 790	56.8

(Millions of dollars and percentage)

Source: UNCTAD TNC/FDI data base.

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Financing refers to funds raised by foreign affiliates excluding the financing of equity by parent companies and reinvested earnings. For 1992, equals only bonds plus long-term loans. Stocks figures (which are thought to be very small) are not available. b

С All bonds issued by foreign affiliates. It can be assumed that most of these bonds were issued in host-country financial markets.

d Including also loans from Japanese institutions located in host countries.

е Association of South-East Asian Nations (ASEAN) includes Indonesia, Malaysia, Philippines and Thailand.

f Newly industrialized economies include Hong Kong, China; Republic of Korea; Singapore and Taiwan Province of China.

g Including Israel in developing countries.

h South Africa is included in developing countries.

i Australia, New Zealand and developing countries of Oceania. Network-wide strategies, greater flexibility in financing, lower risk-adjusted cost of capital and borrowing from host-country and international markets give TNCs considerable potential to affect, in various ways, the financing of investment of host-countries. TNCs can therefore also be more responsive to investment opportunities and incentives than are other firms (Caves, 1996, p. 159). They can undertake projects for which domestic investors do not have capabilities, or projects considered too risky for host-country firms (Kogut, 1993, pp. 222-223). They can outcompete domestic firms in host-country financial markets. Substituting retained earnings and funds raised outside a host-country for local funds can put them on a collision course with contractionary host country policies. By manipulating transactions that are internal for them (but would be at arm's length for national firms), TNCs can, to some extent, choose where to declare profits to minimize their tax burden. Also, with the liquid financial means TNCs have available, they can engage in hedging transactions against exchange-rate movements with possible implications for balance of payments (UNCTAD, 1999e).

The impact of FDI on investment in a host country depends on each host country's conditions. Therefore, it will, for example, be different in countries with abundant savings and other forms of capital than in countries without enough capital relative to their investment needs or demand. It also depends on the financial and other aspects of the behaviour of foreign affiliates: their mode of entry (M&As or greenfield investment), the activities they undertake (existing or not existing in a host country), their sources of finance (as noted earlier), ways of financing FDI (reinvested earnings, intra-company loans or equity capital from parent companies) and ways in which they affect activities of domestic companies. These impacts and factors determining them are examined in the next section.

C. The impact of FDI on financial resources and investment

1. Financial resources

External capital flows to developing countries have undergone fundamental changes during the past three decades. More recently they have been influenced by rapid liberalization of financial markets and privatization of economic activity in developing countries. The private sector has become the principal borrower in international capital markets and recipient of other private financial flows. FDI inflows have increased in importance during the 1990s, becoming the single most important component of total capital flows to developing countries: their share in total flows increased from 28 per cent in 1991 to 56 per cent in 1998 (box figure I.1).

FDI inflows include, however, only part of the financing of foreign affiliates in host countries. They are *internal* to a TNC system, originating from a parent company or from retained earnings. Affiliates can also raise funds (through bonds, loans, etc.) from sources *external* to their corporate system including dometic capital markets of host countries and international markets. To the extent that these sources are in international capital markets, they increase the inflow of foreign financial resources for development. As data for United States TNCs suggest, these additional resources may well be almost as high as FDI inflows themselves: in 1991-1996, the ratio of their total value to that of total FDI outflows from the United States amounted to 85 per cent. In other words, the flow of external resources to host countries due to the presence of foreign enterprises was nearly double that of FDI flows alone (figure I.2). This is broadly confirmed by United States stock data (table VI.2). Stock data also throw some light on intercountry differences in this regard. In particular, host developing countries appear to be largely dependent on finance from parent companies (and retained earnings), as a comparison of Brazil and Mexico on the one hand with France and Germany on the other suggests (table VI.2).⁴

As regards the contribution of FDI flows to external financing, one of the three components of FDI, retained earnings, requires special attention. Retained or reinvested earnings may be viewed — based on a residence principle and in the absence of transfer from abroad — not as an infusion of fresh capital from abroad (Vernon, 1999), but as domestic savings.⁵ Without retained earnings, the contribution of FDI inflows to the supply of foreign resources to

	All countr	ies	Braz	il	Mexic	C	Franc	е	Canad	а	Germa	ny
	Millions of	Per										
Sources	dollars	cent										
External to host countries	1 028 834	58	18 648	64	20 181	70	43 017	54	96 390	56	54 772	46
FDI	651 413	37	16 878	58	17 830	62	27 522	35	81 621	48	34 816	29
Parent companies b	420 196	24	9 891	34	9 2 3 9	32	18 081	23	49 377	29	24 676	21
Retained earnings ^c	231 217	13	6 987	24	8 591	30	9 441	12	32 244	19	10 140	8
Non-FDI financing	377 421	21	1 770	6	2 351	8	15 495	19	14 769	9	19 956	17
Home country	30 698	2	223	1	929	3	496	1	5 958	3	320	0
Other international	346 723	20	1 547	5	1 422	5	14 999	19	8 811	5	19 636	16
Internal to host countries	741 425	42	10 557	36	8 500	30	36 478	46	74 745	44	64 687	54
Total financing position	1 770 259	100	29 205	100	28 681	100	79 495	100	171 135	100	119 459	100
Ratio of non-FDI external financing to FDI financing,												
per cent	58		10		13		56		18		57	

Table VI.2. Sources of financing of foreign affiliates of United States TNCs, on a stock basis,^a 1994 (Millions of dollars and percentage)

Source: United States Department of Commerce, 1998c.

^a Financial position of majority-owned foreign affiliates including their external financial position and reinvested earnings.

^b Equity capital and loans from parent companies.

^c The parent company's share in retained earnings and other reserves.

developing countries in the 1990s falls by between one fifth and one quarter (figure I.1). Based on ownership principle, however, retained or reinvested earnings are included in FDI inflows; the assumption here is that the parent firm could have repatriated the funds, but, instead, decided to reinvest them. Retained earnings are not the only transaction where a movement of financial resources is registered, even though such a movement did not take place in practice. Contributions in kind by parent companies to the capital of foreign affiliates are registered as an equity capital inflow (one of the components of FDI) into a host country, even though their actual transfer of financial resources never takes place (although the transfer of physical capital does).

FDI not only adds to external financial resources for development but is also more stable than other types of flows. FDI is typically based on a longer-term view of the market, the growth potential and the structural characteristics of recipient countries. It is thus less prone to reversals in adverse situations (if these are perceived to be short term) than bank lending and portfolio flows. The risk of "herd" behaviour is also less likely than in the case of other flows. Divestment and reversibility are more difficult for FDI than for portfolio investment. The latter can be disposed of more easily in financial markets (UNCTAD, 1998a, pp. 14-16). This is certainly true if compared with those parts of FDI that are embodied in physical capital. However, FDI flows can also include components that can be used for financing current activities or be invested in short-term securities in host-country financial markets. FDI flows can therefore include a component of portfolio flows. Most studies examining this issue have found that FDI is less volatile than non-FDI private flows. From a purely financial perspective, this trait makes FDI useful as a means of supplementing domestic sources of financing investment (box VI.1).

A good part of FDI does not create debt: ⁶ profits are repatriated only when a project yields return. Part of the profits may be reinvested in the host country (although royalty payments, for example, are not conditional on a foreign affiliate making a profit). This has marked advantages over bank lending, which must be repaid with fixed interest regardless of the performance of the project for which it was used, or of macroeconomic conditions affecting all undertakings in the borrowing country.

Nominally, FDI appears to be a more expensive source of foreign finance than other sources. The rates of profit of foreign firms, especially in developing countries, normally exceed the rate of interest on sovereign loans or other types of international loans (table VI.3). However,

Box VI.1. Testing the volatility of capital flows

Most studies conclude that FDI is a relatively stable type of capital flow.

Studies, especially for developing countries such as Argentina, Chile, Mexico, and the East Asian countries during the current financial crisis, suggest that FDI is more stable than other types of private flows (Agosin and Ffrench-Davis, 1997; and Radelet and Sachs, 1998). Tests comparing the volatility of FDI flows with other private flows into developing countries as a group also found that, during the period 1992-1997, commercial bank loans displayed the highest volatility, as measured by the coefficient of variation, followed by total portfolio investment and FDI. A further test for 12 major developing economies and countries in transition for the same period, based on annual data, has confirmed, with a few exceptions, greater volatility of foreign portfolio investment than FDI (UNCTAD, 1998a, pp. 14-15).

One study, however, found that FDI can be just as volatile as other short-term flows (Claessens et al., 1995). The different results obtained in this study might have been due to the choice of countries and data. For the countries that were chosen (mostly developed countries), FDI flows are small relative to total flows. Fluctuations of small numbers tend to be larger than fluctuations of large ones. Moreover, in developed countries, most FDI takes the form of M&As. In addition, the results may have been influenced by the use of quarterly data; FDI, being lumpy, can be volatile from quarter to quarter.

A test was conducted for *WIR99* as to whether FDI is more or less stable than *all* other forms of capital inflows in developing countries for which capital account data were available, on an annual basis for 1980 to 1997. The test focused on countries for which FDI inflows were above \$100 million in the most recent year available (usually 1996 or 1997).^a In addition, the real value of FDI and other flows was estimated by deflating nominal dollar values by the United States price index for capital goods. The coefficient of variation chosen for the test is the standard deviation divided by the absolute value of the mean.

In spite of the fact that the "other flows" category includes a number of different items with very different patterns of behaviour, the standard deviation of flows other than FDI is, on average, considerably higher than the standard deviation of FDI (box table VI.1). A test of equality of means shows that the standard deviation of other flows is significantly higher than the standard deviation of FDI flows, for both the 1980s and 1990s, at the one per cent level of significance.

Region and country	198	0-1989	1990-1997 ^b		
	FDI	Other flows	FDI	Other flows	
Africa	1.09	1.29	0.73 ^c	0.87 ^c	
Egypt	0.35	2.90	0.49	1.09	
Ghana	0.77	0.44	0.86	0.38	
Morocco	0.65	0.81	0.36	1.05	
Nigeria	1.57	1.59	0.45	0.66	
Tanzania, United Republic of		1.23	1.05	7.33	
Tunisia	0.71	0.56	0.60	0.37	
Uganda		7.41	0.93	1.82	
Zimbabwe	2.48	1.25	1.42	0.78	
Asia	0.65 ^d	1.29 ^d	0.61	1.10	
China	0.64	1.51	0.64	2.10	
India		0.70	1.33	0.72	
Indonesia	0.45	0.54	0.69	1.13	
Korea, Republic of	1.03	32.11	0.58	1.51	
Malaysia	0.43	2.65	0.23	1.77	
Pakistan	0.47	0.47	0.41	0.38	
Philippines	1.47	1.48	0.69	0.56	
Singapore	0.40	2.72	0.36	0.83	
Sri Lanka	0.38	0.29	1.01	0.53	
Thailand	0.93	0.69	0.22	1.43	
Latin America	0.95 ^e	1.96 ^e	0.58	2.18	
Argentina	0.66	2.41	0.32	3.30	
Bolivia	0.80	2.19	0.83	0.70	
Brazil	0.49	2.53	0.64	2.60	

Box table VI.1. Coefficients of variation of real FDI and other capital inflows^a (Standard deviation divided by absolute value of mean)

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(Box VI.1, concluded)

Box table VI.1. Coefficients of variation of real FDI and other capital inflows^a (concluded)

Region and country	198	80-1989	1990-1997 ^b		
· ·	FDI	Other flows	FDI	Other flows	
Chile	0.79	15.49	0.91	0.64	
Colombia	0.53	0.95	0.72	1.97	
Costa Rica	0.31	1.03	0.30	0.87	
Dominican Republic	0.52	2.19	0.42	1.06	
Ecuador	0.45	2.16	0.47	5.18	
Guatemala	0.73	1.75	0.36	0.57	
Honduras	0.65	1.05	0.24	8.51	
Jamaica	3.72	1.17	0.36	0.71	
Mexico		5.72	0.46	1.92	
Paraguay	1.08	1.43	0.33	1.64	
Peru	1.85	2.12	1.11	1.90	
Trinidad and Tobago		9.79	0.54	0.31	
Uruguay	2.03	1.25	0.85	3.86	
Venezuela	0.87	1.08	0.97	1.46	
Jnweighted average	0.94 ^f	1.96 ^f	0.63	1.76	

(Standard deviation divided by absolute value of mean)

Source. UNCTAD Secretariat, based on International Monetary Fund, International Financial Statistics, 1998 Yearbook

^a Nominal United States dollar figures deflated by United States price index for capital goods.

^b For some countries, not all years available.

^c Excluding United Republic of Tanzania.

d Excluding Republic of Korea.

^e Excluding Chile.

^f Averages for countries for which pair wise comparisons were possible.

It is interesting that the difference between the coefficients of variation is small in Africa. This may be because in this region other flows tend to be dominated by official development assistance flows, and private flows other than FDI, which tend to be the more volatile, are not an important component of the capital account. On the other hand, the difference in variability between FDI and non-FDI flows is very sharp for Asia and Latin America, regions in which portfolio investments and bank lending have become important sources of foreign capital inflows over the past 20 years. In the case of Latin America, the difference in variability between FDI and non-FDI flows seems to have risen considerably in the 1990s, in line with the sharp fluctuations in bank lending and in portfolio capital that this region has undergone during the present decade.

These tests have dealt with volatility of capital flows measured by sudden changes in their *size*. But volatile flows can not only change their size but turn from inflows into a host country into outflows exacerbating a host country's financial problems. This has been examined in a test asking how often net flows to or from a country change signs conducted for 52 countries during 1980-1995 (Lipsey, 1999b). The test confirmed the relative stability of FDI compared to other flows: for FDI the average number of reversals was the lowest and the average run in one direction the longest (box table VI.2).

Box table VI.2. Fre	quency of si	gn changes in ca	pital flows, ^a	1980-1995
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Capital flows	Number of sign changes	Average frequency of sign changes	Average duration of run, in years
Foreign direct investment	130	2.50	4.29
Portfolio investment	187	3.60	3.26
Other capital flows	217	4.17	2.90

Source: Lipsey, 1999 and additional information provided by the author.

^a For 52 host countries.

Source: UNCTAD.

^a One reason was to eliminate countries with smaller flows which depend more on official flows. Another was that the smaller FDI flows the more volatile they are.

(Percentage and number of years)

Table VI.3. The financial cost of sources of foreign financing: FDI^a and long-term

international bank loans, 1983-1997

West Asia and North Africa Maturity International bank loans (years) 10.0 10.6 from private creditors 12.4 7.6 8.5 9.8 7.0 8.8 8 7.8 9.7 8.6 7.6 7.4 6.7 8.1 Interest Per cent 9.5 8.9 7.9 7.7 7.8 8.3 8.9 8.9 8.9 7.2 5.7 5.7 6.1 9.7 7.4 7.3 International bank loans Maturity (years) from private creditors 11.6 10.0 8.3 8.4 8.9 5.9 7.8 12.2 9.0 9.3 8.1 7.5 8.4 8.7 8.7 Sub-Saharan Africa Interest Per cent 9.7 9.1 8.2 8.1 7.0 7.9 8.1 7.7 7.4 6.0 6.7 7.1 6.1 6.0 8.7 of return^b FDI rates Per cent 25.8 24.6 17.3 15.5 13.9 17.4 24.2 30.6 28.4 35.3 34.2 17.7 23.7 5.6 25.3 International bank loans Maturity (years) from private creditors 10.6 10.7 8.0 8.9 9.6 8.1 6.9 4.9 0.9 Latin America and the Caribbean 7.5 9.2 9.4 8.2 4.5 7.2 Interest Per cent 11.5 10.0 12.4 8.4 7.9 9.1 9.6 9.0 8.2 7.7 7.2 6.9 7.1 7.3 of return FDI rates Per cent 13.0 14.3 14.9 15.3 10.3 14.2 15.7 12.1 13.1 12.8 12.5 9.5 9.5 7.0 9.9 nternational bank loans Maturity (years) 11.5 11.9 from private creditors 11.0 11.2 11.7 11.2 12.2 13.6 I 3.0 13.4 11.2 10.8 10.0 9.7 9.4 Asia and the Pacific Interest Per cent 6.9 9.6 7.0 7.6 6.6 5.6 5.5 6.3 7.6 9.3 8.4 6.7 8.1 8.4 6.4 of return ⁼DI rates Per cent 27.6 13.0 20.3 23.3 23.8 22.6 20.7 18.4 20.2 27.6 18.1 22.4 19.3 26.1 16.2 nternational bank loans from private creditors Maturity (years) 13.7 10.0 9.8 9.5 9.0 9.5 9.6 9.6 8.3 7.5 9.3 8.4 9.2 8.1 9.1 All developing countries Interest Per cent 10.4 10.5 8.9 7.4 7.6 8.0 8.5 8.5 7.8 6.7 6.3 6.3 6.6 7.3 7.2 of return FDI rates Per cent 15.9 14.9 17.3 10.9 13.2 16.5 17.8 17.2 17.2 16.9 16.5 15.8 14.0 13.4 15.3 All countries of return FDI rates Per cent 11.6 12.6 15.5 14.8 14.3 10.4 11.1 11.7 13.3 12.5 13.0 14.3 12.2 13.4 12.3 1988 1989 1990 1992 1993 1995 966 1986 1987 1991 1994 1997 983 984 985

Source: UNCTAD based on World Bank, Global Development Finance, various issues and UNCTAD, 1999i, p. 18.

a p

The rates of return on United States outward FDI. Rates of return are for all Africa, excluding South Africa.

in many cases, domestic firms would be unable to carry out the same projects as foreign firms, or they would have to incur additional costs to acquire technology, skills or market access. In some countries, particularly lower-income ones, domestic firms are also unable to borrow internationally at any rate of interest.

To the extent that profits are repatriated, they constitute a financial outflow that has to be set against the net annual contribution of FDI inflows to external financial flows to developing countries.⁷ Still, as the data show, for all developing countries every dollar of outflow in the form of repatriated earnings during 1991-1997 occurred side by side with three dollars of FDI inflows. For some developing country regions the ratio was smaller (table VI.4). However, foreign affiliates participate, of course, in many other international transactions, intra-firm (e.g. buying management services from the parent company) or arm's length (e.g., exports and imports of goods), some of them adding to and some of them subtracting from, external financial flows of host countries.

This leads to the broader question of the balance-of-payments effects of FDI. This issue was of considerable interest in the early 1970s, when most developing countries faced stringent foreign exchange constraints (see, e.g. Reuber *et al.*, 1972; Lall and Streeten, 1977).⁸ These constraints are less stringent today, when many developing countries are integrating themselves

Region	1991	1992	1993	1994	1995	1996	1997	1991-1997 (Annual average)
All countries								
Repatriated earnings	52 480	62 189	63 228	75 569	98 179	111 894	108 589	81 733
FDI inflows	115 837	128 600	179 820	192 785	274 487	282 671	351 530	217 962
Ratio of earnings to FDI inflows, per cent	45.3	48.4	35.2	39.2	35.8	39.6	30.9	37.5
Developed countries								
Repatriated earnings	37 898	45 317	44 508	53 882	65 438	74 332	74 627	56 572
FDI inflows	84 931	88 002	119 685	110 463	181 284	171 902	211 271	138 220
Ratio of earnings to FDI inflows, per cent	44.6	51.5	37.2	48.8	36.1	43.2	35.3	40.9
Developing countries								
Repatriated earnings	14 539	16 820	18 644	21 524	32 281	36 970	33 021	24 828
FDI inflows	29 444	39 036	56 844	77 838	81 698	101 984	129 913	73 823
Ratio of earnings to FDI inflows, per cent	49.4	<i>43.1</i>	32.8	27.7	39.5	36.3	25.4	33.6
Africa								
Repatriated earnings	1 574	1 803	2 791	3 132	3 134	3 434	2 899	2 681
FDI inflows	2 358	2 868	3 149	4 759	3 468	3 767	4 742	3 587
Ratio of earnings to FDI inflows, per cent	66.8	62.9	88.6	65.8	90.4	91.2	61.1	74.7
Asia and the Pacific								
Repatriated earnings	8 398	9 548	9 259	10 213	20 342	22 675	15 842	13 754
FDI inflows	14 027	21 621	40 204	44 731	48 087	56 558	64 445	41 382
Ratio of earnings to FDI inflows, per cent	<i>59.9</i>	44.2	23.0	22.8	42.3	40.1	24.6	33.2
_atin America and the Caribbean								
Repatriated earnings	4 559	5 455	6 574	8 146	8 732	10 781	14 200	8 350
FDI inflows	12 983	14 397	13 321	28 068	29 784	41 148	60 277	28 568
Ratio of earnings to FDI inflows, per cent	35.1	37.9	49.4	29.0	29.3	26.2	23.6	29.2
Central and Eastern Europe								
Repatriated earnings	43	51	76	163	460	592	941	332
FDI inflows	1 462	1 561	3 290	4 484	11 505	8 786	10 347	5 919
Ratio of earnings to FDI inflows, per cent	3.0	3.3	2.3	3.6	4.0	6.7	9.1	5.6

Table VI.4. Comparison of repatriated earnings^a and FDI inflows, 1991-1997

(Millions of dollars and percentage)

Source: FDI/TNC database based on the June 1999 IMF balance of payments CD ROM.

^a Balance-of-payments item "dividends and distributed branch profits".

more closely into international goods and financial markets and adjusting their macroeconomic and exchange-rate policies accordingly. However, the balance-of-payments issue is still relevant for many countries and countries are often concerned with the balance-of-payments effects of FDI (box VII.3).

The net present value in terms of direct foreign exchange effects of any profitable FDI project ought to be negative, if all profits are repatriated. Unless the investing firm expects to earn over the life of the project, a larger sum than it puts in (discounted at the market rate of interest), the investment is not profitable and so not worth undertaking. In this sense, any profitable FDI project, with profits realized in foreign exchange, will have a more adverse balance-of-payments impact than an identical national project financed from national sources. However, this begs the question as to whether the project could have been undertaken (at equivalent levels of efficiency) in the absence of FDI. Moreover, FDI in tradable activities generates foreign exchange (export projects) or saves it (import-substituting projects). Unless there are high tariffs, overvalued exchange rates or other disincentives to trade, TNCs will also do this efficiently. If they use their special ownership advantages to access world markets, they can often do it more effectively than local firms (chapter VIII). Even projects in non-tradable sectors can enhance the competitiveness of tradable activities; for instance, FDI in telecommunications or infrastructure (roads, ports or airports) could remove bottlenecks affecting export logistics in many developing countries.

These indirect effects have to be taken into account in assessing the balance-of- payments impact of FDI. Moreover, the economic value of an investment cannot be assessed by looking only, or mainly, at direct balance-of-payments effects. As long as the investment's social benefits exceed its social costs, the management of the balance-of-payments is a matter of macroeconomic policy management. In a well-managed regime, investments will tend to have beneficial economic effects on the host economy. These will show up in higher growth, and the balance of payments will adjust, given appropriate exchange rates.

While FDI may bring various benefits not normally available from national firms or other sources of external financing, it may also influence the division of financial benefits between TNCs and host countries which may have balance-of-payments implications. The possibility arises because of a large variety of intra-firm transactions that take place between foreign affiliates and their parent firms. These transactions run the gamut of intra-company trade, payments of interest on intra-company loans, payments for services provided by personnel from the parent company or from another affiliate and payments for technology. For several of these items, there really is no market or arm's-length price – for example, in the case of technology payments or payment for specialized consultancy services. TNCs have considerable freedom in fixing prices of goods and services in these transactions – transfer prices – which, in distinction from prices for arm's-length transactions, are not transparent and cannot be checked easily. TNCs can use transfer pricing to their own benefit, affecting the amount of profit reported in host countries, which in turn affects the tax revenue of both host and home countries.⁹

In every transaction involving abusive transfer pricing there is a country in which less taxes are being paid (presumably a country with, for example, a higher tax rate) and a country in which more taxes are being paid (the country with a lower tax rate). Winners and losers can be either host or home countries, developing or developed. Whether a country is a winner or loser depends not only on its tax rates but also on other factors such as tariffs and capital transfer regulations. For example, in the 1960s and 1970s, transfer pricing was a means of overcoming restrictions on transferring profits abroad which existed in many developing countries (Lall, 1979; Vaitsos, 1974). Since that time, profit remittances have been generally liberalized and taxes have declined all over the world. Double taxation treaties (see chapter IV) between host developing countries and home countries should also have led to less transfer pricing abuses deleterious to host developing countries.

However, this does not mean that the problem has disappeared. It remains a concern not only among developing countries, but also among developed countries, better equipped to tackle the issues raised by transfer pricing. For example, 84 per cent of the developing countries participating in an UNCTAD survey estimated that the affiliates they hosted shifted income to their parent companies to avoid tax liabilities and 61 per cent thought that their own TNCs were engaging in income shifting. In 1994, for example, the United States tax authority made income adjustments of \$2 billion and \$1.5 billion for 236 non-United States-controlled and 156 United States-controlled TNCs, respectively. In 1997, in Japan, 78 adjustments to reported income were made due to transfer pricing assessments totalling \$330 million (UNCTAD, 1999s, pp. 31-32). These figures indicate that the issue continues to exist and should be dealt with not only in national legislation but also be a subject for consideration in international arrangements.

2. Investment

In distinction from other sources of capital, such as bank loans, bonds or even portfolio equity capital (which represent externalized forms of foreign savings that are used for investment by local firms), FDI is the only source that internalizes foreign savings, that is, firms bringing these savings undertake investment. TNCs can thus affect investment in host countries directly through their own investment activities, and idirectly, by affecting investment by host country firms. These two impacts are examined separately.

a. Direct impact

An examination of the direct contribution of foreign affiliates to host countries' total investment requires, ideally, that the investment of these affiliates be compared with the investment of domestic firms. But countries typically do not disaggregate their investment expenditures accordingly. FDI inflows are used therefore as a proxy, though an imperfect one,¹⁰ for measuring investment by foreign firms. Based on this measure and gross fixed capital formation (GFCF) as a measure of total investment in host countries, the following trends as regards the direct contribution of FDI to this investment over time emerge (figure VI.1 and table VI.5):

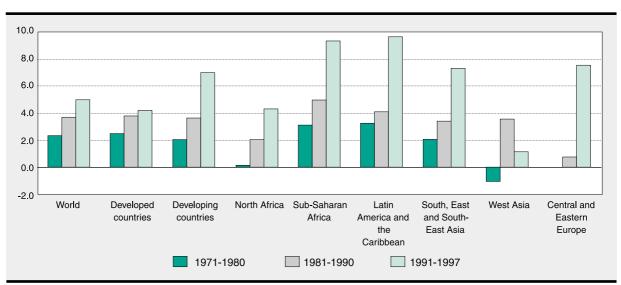


Figure VI.1. The ratio of FDI inflows to gross fixed capital formation, by region, annual average, 1971-1980, 1981-1990 and 1991-1997

(Percentage)

Source: UNCTAD TNC/FDI data base.

Percentage		Economy ^a	
ratio (x)	1971-1980	1981-1990	1991-1997
x ≥ 20 per cent	Bahamas, Botswana, Antigua and Barbuda, Seychelles	Liberia, Saint Kitts and Nevis, Antigua and Barbuda, Singapore, Seychelles, Vanuatu, Chad	Equatorial Guinea, Angola, Vanuatu, Trinidad and Tobago, Saint Vincent and the Grenadines, Guyana, Dominica, Fiji, Hungary, Bolivia, Singapore, Estonia, Belgium and Luxembourg, New Zealand, Kyrgyzstan, Grenada, Saint Kitts and Nevis Panama, Chile
15≤ x<20 per cent	Swaziland, Singapore, Uruguay, Trinidad and Tobago	Swaziland, Dominica, Angola, Papua New Guinea, Zambia, New Zealand, Grenada	Seychelles, Sweden, Nigeria, Colombia, Namibia, Liberia, Republic of Moldova, Swaziland, Malta, Costa Rica, Ireland, Antigua and Barbuda, Gambia, Nicaragua, Malaysia, Peru
10≤ x<15 per cent	Cyprus, Malaysia, Angola, Grenada, Malta, Fiji, Papua New Guinea	Fiji, Belgium and Luxembourg, Botswana, Saint Vincent and the Grendadines, Chile, Saudi Arabia, Belize, United Kingdom, Equatorial Guinea, Malaysia, Hong Kong (China), Netherlands, Costa Rica	Chad, Venezuela, Netherlands, Papua New Guinea, Poland, Ecuador, China, Madagascar, Mexico, United Kingdom, Dominican Republic, Belize, Uganda, Ghana, Bahamas, Yemen
5≤ x<10 per cent	Guatemala, Canada, Togo, Central African Republic, Sierra Leone, United Kingdom, Egypt, Oman, Niger, Panama, Jamaica, Congo, Rwanda, Dominican Republic, Democratic Republic of Congo, Barbado, Belgium and Luxembourg, Haiti, Ireland, Tunisia, New Zealand, Belize, Senegal, Costa Rica, Saint Kitts and Nevis, Malawi, Netherlands, Zambia, Ecuador, Cameroon, Australia	Gambia, Guatemala, Australia, Spain, Nigeria, Cyprus, Trinidad and Tobago, Malta, Colombia, Comoros, Portugal, Bahrain, Mexico, Oman, Greece, Tunisia, Gabon, Rwanda, United States, Egypt, Bolivia	Djibouti, Zambia, Bulgaria, Côte d'Ivoire, Czech Republic, Australia, Paraguay, Argentina, Cape Verde, Tunisia, Jamaica, Denmark, France, Cyprus, Spain, Morocco, Honduras, Philippines, Portugal, Hong Kong (China), United Republic of Tanzania, Uruguay, Mali, Malawi, Egypt, Norway, Belarus, Canada, Pakistan, Indonesia, Sri Lanka, Babados, United States, TFYR Macedonia, Switzerland, Slovenia, Senegal Finland, Israel

Table VI.5. The relative importance of FDI inflows in gross fixed capital formation, by countries, 1971-1997

Source. UNCTAD, based on IMF, International Financial Statistics, May 1999 CD-ROM.

^a Within each cell, countries are ranked by order of descending value in each bracket category.

- During the past three decades, the importance of FDI relative to total investment has consistently increased in all country groups developed, developing and countries in Central and Eastern Europe. In the 1990s, this importance has become for the first time higher in developing countries and economies in transition than in developed countries, with the ratios of FDI inflows to GFCF for the three groups amounting to seven per cent, 7.5 per cent and 4.2 per cent, respectively, during 1991-1997 (figure VI.1).
- The ratio of FDI to total investment has also increased consistently over time for almost all developing country regions and sub-regions (except West Asia). In the 1990s, the ratios in Africa, Latin America and the Caribbean and South, East and South-East Asia were more than two times higher than in the 1980s.
- In spite of its rapidly growing importance, FDI still plays, on average, a modest role in domestic investment in all country groups, indicating perhaps potential for further growth in importance. In most countries (66 per cent in 1991-1997), the ratio does not exceed 10 per cent. On the other hand, the number of countries with relatively high ratios equal to, or above, 15 per cent increased between the 1970s and the 1990s from seven per cent to almost a quarter of all countries (57 countries): all of them, with two or three exceptions, developing countries or countries in transition (table VI.5).

The ratio of FDI to host country investment does not distinguish between countries with good or poor overall investment performance. It captures only the role of FDI in total investment, regardless of the investment rates in the economies of host countries. Therefore, it includes both situations in which good FDI performance enhances good domestic investment performance as well as situations in which the ratio of FDI to total investment is high, but the performance of both FDI and domestic investment is poor, with that of the former being less poor than that of the latter. A case in point may be sub-Saharan Africa, where FDI performance lagged behind that of other developing country groups (see Chapter II) but the FDI/GFCF ratio was consistently higher than the developing country average and the ratio in, for example, South, East and South-East Asia (figure VI.1). While during most of the 1970s this ratio reflected good FDI performance accompanied by good overall investment performance, during the 1980s and the 1990s it resulted mainly from a substantial fall in, and a low level of, domestic investment, accompanied by FDI that, while not rising significantly, held up better than domestic investment and, hence, total investment.

As mentioned earlier when discussing the *source* of funds, FDI flows are not a perfect measure of the external finance mobilized by TNCs for host countries. The same applies when it comes to investment *expenditures* (table VI.6). Using United States data,¹¹ investment expenditures of foreign affiliates in all host countries were 60 per cent higher than FDI inflows during the period 1989-1996. In developed countries, foreign affiliates invested even more (70 per cent) while in developing countries, they invested one third more than the amount TNCs brought in as FDI. A disaggregation of the data by region indicates that this pattern holds for both developed and developing countries.¹²

This is entirely consistent with what had been discussed earlier about the financing of foreign affiliates. FDI flows underestimate total investment of foreign affiliates in host countries. The difference between the two measures (foreign affiliate investment expenditure and FDI) can be attributed to two factors. One is that foreign affiliates can finance their investment expenditures from sources other than FDI inflows. The second factor is that FDI inflows include components that are not used for the financing of their investment expenditures.

Host contry/region	Total investment of affiliates	FDI inflows ^c	Ratio of investment to FDI
All countries	711	444	1.6
Developing countries	184	137	1.3
Latin America	87	91	0.95
South and Central America ^d	80	62	1.3
Asia	84	44	1.9
South, East and South-East Asia	73	41	1.8
West Asia	12	4	3.5
Africa	12	1	12.6
Developed countries	522	304	1.7
Western Europe	345	241	1.4
Japan	46	8	5.6
Other	126	55	2.3

Table VI.6. Foreign affiliates^a of United States TNCs: total investment^b and FDI flows, 1989-1996

(Billions of dollars and ratio)

Source: United States Department of Commerce, US Direct Investment Abroad, various issues.

^a Non-bank affiliates of non-bank parents.

^b Capital expenditures of affiliates. Data on capital expenditures of minority-owned foreign affiliates are available only for 1989 and 1994. For other years they were estimated on the basis of the ratio of capital expenditures of minority-owned affiliates to capital expenditures of majority-owned affiliates in 1989 and 1994.

^c Excluding banking.

d Excluding Panama

Investment expenditures can be financed from sources external to the TNC system. These sources are the capital markets of the host countries and international financial markets. As indicated in section B, the share of funds raised in both host country markets and international capital markets in the total financing of affiliates is quite significant and, if one can assume a similar composition of the investment financing (data on the financing of investment expenditures only are not available), this explains a large part of the difference between total investment expenditures of foreign affiliates and FDI flows. One would expect that this difference should not be large in host developing countries, because borrowing costs in these countries tend to be higher than costs in developed countries and in international financial markets. But data on funds raised by foreign affiliates of Japanese TNCs (excluding own funds of affiliates and funding of equity by parent companies and other firms) do not confirm this: although the share of funds raised in the financial markets of host developing countries in the financing from all sources was generally lower than in developed countries, the difference was not that large in 1989 and 1992, and the share in developing countries was high — over 40 per cent in both years (table VI.1). It decreased by 1995, but it still amounted to one quarter, a level too high to say that foreign affiliates avoid financing from the local market. Apparently exchange rate and country risk considerations, mentioned earlier, play a great role in financing decisions. There were also big interregional differences: the share in Latin America (8.4 per cent, down from the level of 32 per cent in 1989) was much lower than in Asia (34 per cent, down from 57 per cent in 1989). United States data (available on a stock basis for Mexico and Brazil in 1994) provide the same picture: a high share of local financing in total financing from sources external to TNCs, not different from the share in all countries or individual host developed countries.¹³ This is not to say that the high cost of borrowing (and underdeveloped financial markets) in many developing countries do not discourage TNCs from local financing, but rather that the picture is much more complex and that there can be developing countries in which the situation is more similar to that in developed countries. And, if these countries are large, they may influence the developing country average to such an extent that it gets closer to that in developed countries.

From the point of view of the impact on the size of investment by foreign affiliates, the disaggregation of the funds external to a TNC system into those raised in the host country and those in other countries does not matter. It matters, however, for foreign financing. From this viewpoint it is preferable that foreign affiliates use international sources of financing. It also may matter as regards the indirect investment impact of foreign affiliates, that is, the impact on investment by domestic companies in host countries, discussed in the next section.

As regards the second factor explaining the difference between investment of foreign affiliates and FDI inflows generated by them, the latter may include flows for M&As which — representing a change of ownership of existing assets — as such do not contribute to a host country's capital formation at the moment of entry. Another non-investment component are intra-company loans. Although M&As are not investment in new productive assets at the moment of entry, they may lead to investment in the future through sequential investment (chapter III). It can not be ruled out that loans, or at least part of them, are used to finance investment in fixed capital.¹⁴

The importance of these components for FDI flows varies. As regards loans, the data available for selected countries show that they accounted for 18 per cent of total FDI inflows in these countries in 1990-1998. There was no difference between developed and developing countries in this regard (figure I.1). There was also no clear trend. Rather, the share of loans in total inflows fluctuated from year to year, within a range of eight per cent to 38 per cent in developed countries and three per cent to 25 per cent in developing countries. As regards M&As, they appear to be a dominant component of FDI inflows in developed countries, while, at least until recently, greenfield projects were the dominant mode of entry of TNCs into developing countries. Recently, there is a trend towards an increase of M&As in some developing countries (chapter III). Many of these deals relate to privatization and therefore are likely to lead to sequential investment (UNCTAD, 1995a, pp. 77-78, 103-104 and 106-107; Agosin, 1996; Chudnovsky, López, and Porta, 1996;). Although M&As do not have a direct impact on a host country's investment at the moment of entry, they may have an indirect impact on this investment.

b. Indirect impact: does FDI "crowd out" or "crowd in" domestic investment?

Apart from the impact on investment in host countries through their own investment activities, foreign affiliates may also affect investment by domestic firms (and that by other foreign affiliates). If their investment crowds out investment by domestic firms, then an increase in investment of foreign affiliates by one dollar will lead to an increase of total investment in the host country smaller than one dollar. In the extreme case, a dollar of foreign investment may crowd out more than a dollar of domestic investment, reducing total investment. In the case of crowding in, total investment increases by more than the increase in investment by foreign affiliates. If the effect is neutral, any increase in affiliates' investment is reflected in a dollar-for-dollar increase in total investment.

Crowding out (or crowding in) can take place in either financial markets or product markets.

If TNCs finance their investment by borrowing in the host country under conditions of scarcity of financial resources, and hence cause a rise in domestic interest rates, they may make borrowing unaffordable for some domestic firms.¹⁵ Were TNCs to finance their investment, instead, from funds raised abroad, total investment in the host country could be higher by the amount of domestic investment not undertaken due to higher interest rates: this amount is thus crowded out. It is important to underline that this type of crowding out cannot be triggered by FDI inflows per se, as these, by definition, comprise only financing internal to the TNCs system. If there is domestic financial repression (when domestic firms already face difficulties in raising funds in the local financial markets), FDI inflows are almost certain to add to the supply of financial resources (directly through M&As and indirectly through greenfield investment). The possibility of financial crowding out of domestic firms under such conditions is low. On the other hand, if these inflows are large relative to the size of the host country's financial market, they may lead to an appreciation of the exchange rate, making a host country's exports less competitive and discouraging investment for export markets. In this case, the potential of an adverse effect is greater in the case of M&As (especially those on the border of portfolio investment) than in the case of greenfield investment: the chances that proceeds from the acquisition will find their way to host-country financial and foreign exchange markets (thus increasing the supply of foreign currencies) is much greater than in the case of new investment where a part of the invested capital, quite likely, will be spent outside of the host-country, on imports of capital goods.

Crowding out in financial markets can take place regardless of the industry. Foreign affiliates in services can outcompete domestic firms in manufacturing in securing finance. Crowding out of product markets takes place when firms are from the same industry. It can take place at the stage of the investment decision, through the mechanisms of the financial market described above. It can also take place regardless of the impact of FDI on conditions in financial markets or the exchange rate, because domestic firms give up investment projects to avoid the prospects of competing with more efficient foreign competitors. The net effect on total host-country investment depends on what happens to the released resources: if they go to other activities in which local firms have greater competitive advantages, there will be no crowding out of investment in the economy as a whole. It may also be that FDI forces local competitors to raise their efficiency and so leads to raising their investment and profitability. To make any generalization about crowding out, all these dynamic second-round effects need to be taken into account.

Crowding in takes place when investment by foreign affiliates stimulates new investment in downstream or upstream production by other foreign or domestic producers or increases the efficiency of financial intermediation. In the case of foreign firms (e.g. supplier firms from a home country), this represents associated FDI and reinforces the direct effects of FDI on total investment. In the case of domestic firms, the effect on investment is indirect. Thus the existence of backward or forward linkages to local companies from the establishment of foreign investors is a key consideration for determining the total impact of FDI on capital formation. In many cases, the development of domestic subcontractors would not be possible without foreign affiliates, which provide stable long-term markets as well as access to technological information. It may happen, though, that foreign affiliate-established linkages lead to crowding in after the foreign affiliate has crowded out its direct competitors: then, the net effect on the host country's investment will depend on the relative strengths of the two effects.

Foreign affiliates that introduce new goods and services to a domestic economy (financed from funds raised outside of the host country) are more likely to have favourable indirect effects on capital formation than foreign investments in areas where domestic producers already exist. In the former case, the effects on capital formation will be positive because domestic producers may not have the knowledge required to undertake these activities. If FDI enters the economy in industries in which there are competing domestic firms, the very act of foreign investment may take away investment opportunities that were open to domestic entrepreneurs prior to the foreign investments. In other words, such FDI may well reduce domestic investments that would have been undertaken, if not immediately, then perhaps in the future, by domestic producers.

But even in new activities beyond the current reach of domestic investors, conditions conducive to domestic firms may be established in the future. In such cases, FDI may preempt investments by domestic firms that, with proper nurturing, could enter the industry successfully. If in place, such policies can be an important factor determining the size of the indirect investment effects of FDI in the host country economy.

What does the evidence show as regards the indirect impact of FDI on a host country's investment? Systematic analysis based on rigorous statistical testing adds the possibility of neutral effects (that is a dollar of FDI leading to an increase of investment by just one dollar). In such testing, crowding in and neutral effects seem to prevail, although crowding out is not uncommon (box VI.2). Nevertheless, these results (including those reported in box VI.2) should be interpreted with caution. The variables used are far from perfect (e.g. FDI flows underestimate the total value of investment of foreign affiliates), there are secondary effects that are impossible to measure (but which may compensate for the negative effects of crowding out by gains in efficiency, if crowded out enterprises are inefficient) and there is no consensus as to which methodology is most appropriate. It should also be kept in mind that, in most cases, crowding out does not mean an absolute reduction in total investment, but rather that its increase is not proportionate to FDI inflows. A general conclusion can be drawn that crowding out cannot be ruled out, but it does not appear to be the general case.

Box VI.2. Evidence for crowding in and crowding out

Industry and country examples

Recent experience provides examples of these effects at the industry level. Crowding in has taken place in the case of Argentina's telecommunications privatization, where the development of domestic subcontractors was part and parcel of the privatization agreement with foreign investors and appears to be working well (Chudnovsky, Lopez and Porta, 1996). The recent decision of Intel to build a large microprocessor plant in Costa Rica will undoubtedly contribute to domestic capital formation. Obviously, this investment as such will not displace local entrepreneurs, because they do not exist, even potentially. There are estimates that the Intel affiliate, which operates under EPZ status, will give rise to investments by about 40 local suppliers, and that locally-produced goods and services will generate about 15 per cent of the value of total output, almost all of which will be exported (ECLAC, 1998, pp. 48-49). On the other hand, there are already complaints by local business people that Intel's investment crowds them out of the labour market by absorbing skilled programmers.

Examples from countries in East Asia – Indonesia, Malaysia, and Thailand – that have relied heavily on FDI show that it may take some time for indirect effects on domestic investment to take place. TNCs have invested in new industries of the economies of those countries, mainly microelectronics-related, but also toys and other consumer goods for export markets (Jomo, 1997). In

(Box VI.2, concluded)

the absence of TNCs, it is unlikely that these investments would have been made at all. Initially, however, many of the foreign affiliates were essentially assemblers with few linkages to the rest of the economy. Over time, domestic suppliers of services and inputs have emerged.

Mining or other raw material extraction projects typically generate few linkages, backward or forward, and therefore their indirect effects on domestic investment are negligible, if they exist at all. In countries that do not have the required know-how or access to capital (as is the case, for example, with several African countries), FDI may contribute to capital formation directly through investments in foreign affiliates. In countries with competitive domestic firms operating in the same industries and markets, however, FDI may have crowding-out effects. This might have been the case with recent foreign investments in copper in Chile. It is quite likely that the national copper company (CODELCO), which is the largest copper mining enterprise in the world and operates with state-o-the-art technology, was in a position to undertake further investment in this sector (Riveros, Vatter, and Agosin, 1996; Agosin and Benavente, 1998).

There are also examples of economies that have chosen to stimulate domestic investment in new activities rather than to rely on FDI. This was the rationale for limiting FDI in certain high-technology industries in the Republic of Korea and Taiwan Province of China (chapter VII). In these cases, the vision by policy makers that domestic firms could in fact emerge paid off. In many cases, however, the emergence of successful domestic producers in a new, technologically-advanced industry is unlikely or might take a long time with uncertain results. An example of a costly intervention in favour of domestic firms in high-technology industries is the Brazilian informatics policy of the early 1980s, which involved restrictions on FDI in information technology activities.

Statistical tests

What, then, is the empirical evidence on crowding in or crowding out at the country level?

In an early example, relating to Canada, of the few studies addressing this question, some regression coefficients, taken at face value, implied that "...\$1 of direct investment led to \$3 of capital formation" (Lubitz, 1966, pp. 97-98). A later study of FDI in Canada (Van Loo, 1977), with somewhat different methods, a slightly longer time span and annual rather than quarterly data, found a positive direct effect on capital formation greater than the amount of the FDI. That is, in addition to FDI effect on investment, there was some complementary effect on fixed investment by domestic firms. However, when indirect effects through impacts on other variables, such as exports (negative), imports (positive) and consumption (negative), operating through the accelerator were added, the addition to total capital formation was much smaller, a little over half the inflow. A recent study of the impact of FDI on economic growth, utilizing data on FDI flows from developed countries to 69 developing countries on a yearly basis from 1970 to 1989, has found, among others, that FDI has stimulated domestic investment: "a one dollar increase in the net inflow of FDI is associated with an increase in total investment in the host economy of more than one dollar. The value of the point estimates place the total increase in investment at between 1.5 and 2.3 times the increase in the flow of FDI" (Borensztein, *et al.*, 1995, p. 3).

An econometric exercise carried out to investigate this issue is described in an annex to this chapter. It covers a longer period of time (1970-1996) than the previous test cited, but a smaller number of countries (39 countries, mostly developing ones but including also two European developing countries and one country in transition). It uses total FDI flows as a variable, that is, it includes, in addition to inflows from developed countries, inflows from developing countries and countries in transition. The results with respect to the effects of FDI on investment by individual countries show that neutral effects dominate while the number of crowding in and crowding out cases were equal: the former were found in 19 countries and the latter in 10 countries each. As regards regional patterns, out of the 12 Latin American countries was in the crowding-out group: while neutral and crowding in effects prevailed in Asia, neutral and crowding out effects prevailed in Latin America. African countries are found in all three groups (table A.VI.2 in annex to this chapter).

Source: UNCTAD.

D. Conclusions and policy implications

As is evident from the preceding analysis, FDI inflows can supplement domestic financial resources for development and can add, directly or indirectly, to domestic investment in host developing countries. They bring foreign exchange that adds to host countries' balance-of-payments receipts. TNCs can undertake investment projects that may be beyond the reach of domestic investors. But they can also have a number of negative effects, such as crowding out domestic investors and, through transfer pricing, shifting funds out of the host country. In distinction from national enterprises, TNCs may remit profits they earn on investment projects in a host country in the form of dividends (rather than reinvesting them), adding to a country's balance-of-payments expenses. While all developing countries try to attract FDI for the purpose of supplementing their domestic financial resources, FDI inflows still do not have a major influence on total investment in most developing countries: in fact for all developing countries the ratio of FDI to gross domestic capital formation averaged only seven per cent over the 1991-1997 period, although it is higher in the manufacturing sector.

This section deals with measures that countries use to attract FDI inflows, to maximize external financial resources that TNCs make available for development and the total investment in a host country.¹⁶ It also addresses the question of how some of the negative effects can be reduced. Subsequent chapters analyse the ways of increasing the quality of FDI in terms of the principal non-capital components of the FDI package, especially technology transfer, diffusion, and generation; export development; job- and skill-creation and upgrading; and environmental sustainability.

To attract FDI and benefit from it, governments take a range of measures. One of the first things governments wishing to attract FDI can do (and should do) is to establish an enabling policy framework for FDI. Of course, they need to recognize that the FDI policy framework is but one of the factors that attract FDI inflows. It is a necessary but not a sufficient condition to influence locational decision. Business facilitation measures – the efficiency and efficacy of the administrative system that impinges on the entry and operations of TNCs, as well as investment promotion (including incentives available to foreign investors) – can also influence FDI inflows. Once a regulatory framework is enabling, however, TNCs are attracted primarily by economic factors such as the size and growth of the domestic and regional markets and the availability and cost of resources, ranging from natural resources through unskilled, semi-skilled and skilled labour to physical infrastructure (UNCTAD, 1998a).

There is no "one-size-fits-all" best-practice FDI policy framework that is appropriate for all countries. The subsequent text discusses briefly a number of issues relating to the main components of the FDI policy framework: policies and regulations on FDI; their implementation; promotional measures; and targeting. Each of these three components affects the attractiveness of host countries to foreign investors and hence the flows of FDI.

1. The framework

a. The regulatory framework

Developing countries' FDI policies, as well as those of countries in transition, in the past two decades have been characterized by a trend towards unilateral liberalization, with a view towards creating more favourable conditions for FDI (see table IV.1). Goverments have gradually made entry and establishment easier by reducing – but by no means abandoning – sectoral restrictions on FDI, either by expanding the positive list of industries in which FDI is permitted or by reducing the negative list of industries closed to FDI, notably in services industries and (increasingly) in infrastructure. Privatization programmes are often open to foreign investors. Foreign equity participation restrictions and compulsory joint ventures, once a common policy tool in many developing countries, have been removed in most industries open to private investment. Control restrictions, beyond those related to equity restrictions, such as golden shares, are less common than in the past, although they continue to be used particularly in large investments, in activities of strategic importance for the local economy, or in cases of privatization of public enterprises. Minimum amounts of equity investment requirements have also been reduced or abolished, thus removing an obstacle to FDI inflows from SMEs. Screening and authorization requirements tend to be replaced by simple registration on the basis of minimum and generally-applicable requirements. Screening continues in specific industries, especially in sensitive activities, or where FDI entry takes place through M & As. Some types of operational restrictions, such as restrictions on the entry of professional and managerial personnel, are being relaxed in some countries, subject to emigration law requirements. Outright performance requirements are less prevalent than in the past as they tend to lose their compulsory character; often they are combined with incentives. There is also a relaxation of foreign exchange controls, although countries reserve the right to impose temporal exchange control restrictions in the event of balance-of-payments crises.

The reduction of obstacles to FDI inflows is being complemented, at the national level, by the strengthening of standards of treatment of foreign affiliates. In particular, most countries today provide guarantees of legal protection, national treatment, fair and equitable treatment and most-favoured-nation (MFN) treatment, along with the free transfer of profits and repatriation of capital and dispute settlement. To ensure the proper functioning of markets, furthermore, a growing number of countries have adopted competition laws.

During this liberalization trend, many host countries have adopted FDI-specific laws¹⁷ in one form or another, spelling out the main features of their FDI regimes. These laws have been superseded or amended over the years, and new laws have been adopted to reflect policy changes as outlined above. Moreover, in the course of liberalization, some countries have reduced the scope of their FDI laws, placing relevant provisions into other laws, dealing with specific issues that are in developed market economies typically covered by general business and commercial laws, e.g. taxes, foreign exchange, company statutes and competition issues. The logic of this trend is that foreign investors are increasingly treated in the same manner as domestic companies.

To complement and strengthen national policies and regulatory measures, countries have concluded great numbers of bilateral treaties for the promotion and protection of FDI (BITs), as well as for the avoidance of double taxation (chapter IV). The latter treaties not only reduce the risk of double taxation but also the scope for transfer pricing. BITs, on the other hand, are aimed at attracting FDI by providing general treatment and protection standards (UNCTAD, 1998b), in particular national, fair and equitable and MFN treatment after admission, guarantees against expropriation and recourse to international means for the settlement of investment disputes. Liberalization is proceeding most intensely within regional groups, typically in the context of regional integration agreements that are being signed in increasing numbers in all developing regions (see chapter IV). In addition, most developing countries are parties to a number of multilateral conventions dealing with investment related issues such as ICSID, MIGA and the WTO agreements on trade in services, trade-related investment measures and trade-related aspects of intellectual property.

Putting into place a state-of-the-art FDI regulatory framework appropriate for a particular country is not a simple matter. Often governments are confronted with difficult decisions regarding the pace and nature of FDI liberalization. Notwithstanding the trends described above, national laws continue to provide for state control and discretion over entry and establishment, even in more "open-door" economies. At the international level, although market access provisions in investment agreements are common, they do not uniformly display commitments that offer foreign investors completely unrestricted or full rights of entry and establishment (UNCTAD, 1999e). These issues continue to be sensitive matters in international negotiations.

Depending on the concrete characteristics and circumstances of each country, different industries and activities might need to be approached differently. In particular, the process of reducing barriers and introducing non-discrimination standards needs to occur simultaneously with strengthening the supervision of the market to ensure in particular that public restraints (on, e.g. market entry) are not replaced by private restraints (e.g. restrictive business practices). Countries also need to take measures to protect themselves against other negative effects. Indeed, many of the restriction on FDI that remain are meant to prevent undesirable effects of FDI, such as an adverse impact on the balance of payments and crowding out of domestic firms (especially SMEs). In addition, countries may need to take measures to monitor transfer pricing (UNCTAD, 1999e), limit access to local financial markets by foreign companies and, of course, monitor M&As.

The key to attracting FDI is not only to design appropriate regulatory framework at a particular time. It also involves the timely review and constant monitoring of results, and the ability to change policies and adapt them to new circumstances. One way of assisting developing countries in this respect is to undertake investment policy reviews (box VI.3). At the same time, policies should not be changed arbitrarily or too frequently as investors attach importance to stable regimes. When changes are envisaged, it is good practice to consult existing investors and business associations.

Box VI.3. UNCTAD's Investment Policy Reviews

Many countries have significantly liberalized their FDI regimes, and governments are keen to know how well their reforms are working: Is there new FDI? Is it of the right kind? What more should be done? With the dismantling of traditional monitoring systems, policy makers may lack a mechanism to generate feedback on the impact of investment measures which are typically implemented by various government bodies and not coordinated. UNCTAD's Investment Policy Reviews (IPRs) are intended to fill this void: to provide government officials with a means of reviewing FDI in a liberal environment.

The IPRs are conducted by UNCTAD, following a standard format and involving staff, international and national experts and inputs from governments and the private sector. The reviews are presented and discussed in national workshops involving public officials and other stakeholders. They are also considered at an international commission in Geneva. The final reports are widely disseminated.

The reviews are undertaken on request. The assumption is that governments are ready to receive independent feedback and to engage in open dialogue with investors and peers. Their expectation is that a transparent and objective presentation of their country's investment policies and opportunities will put their country on the radar screen of international investors. The first round of reviews included Egypt, Peru, Uganda and Uzbekistan. The pipeline of requests includes Ecuador, Kenya, Mauritius, Pakistan, the Philippines and Zimbabwe.

The reviews have a common format of three sections examining: the country's objectives and competitive position in attracting FDI; the FDI policy framework and administrative procedures; and policy options. The reviews go beyond an examination of how well FDI policies look on paper and probe how well those policies work in practice in achieving stated national objectives. 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. Based on an analysis of investor perceptions and of relevant FDI trends at the regional and global levels, the reviews assess the country's core competencies in attracting FDI, and then gauge the effectiveness of policies in leveraging the competitive strengths of a country (relative to other countries) and in ameliorating potential weaknesses. The policy options and recommendations are practical, and are geared to decision-makers in investment promotion agencies. They include technical assistance proposals and follow up. Although having a country focus, the reviews proceed in a global context, comparing a country's policies, strengths and weaknesses in relation to other countries, particularly in the region. The reviews are underpinned by the data and analysis of UNCTAD's *World Investment Reports*.

IPRs are funded primarily through extra-budgetary resources. Individual country projects are funded on a cost-sharing basis by UNDP, the Government of Switzerland, host government institutions and, as appropriate, the local and transnational private sector (to sponsor individual workshops or provide in-kind support, such as technical studies or industry experts).

Source: UNCTAD.

b. Contracts

While the regulatory provisions relating to FDI in most developing countries and economies in transition are set out in general laws, they need to be augmented in certain categories of foreign investment – and, in some cases may, in practice, be overshadowed – by contractual provisions to which the government or a government agency is a necessary party. This is increasingly true for economies in which agreements are used, e.g. to short-circuit anomalies of the tax system or in which the legal system may be well established, but there is no long track record of successful dealing with foreign investors in very large projects.

This contractual nexus is of critical importance in the natural resources sector and in major infrastructure projects, including those involving power generation and the construction of pipelines. Indeed it is probably true to say that there is at present no prospect of a major investment in mining or petroleum in a developing country (or an economy in transition) without contractual commitments by the government or a government agency covering a wide range of important issues. In a quite different context, contracts negotiated between TNCs and government agencies relating to the construction and management of hotels are often a focal point for the development of a tourist industry.

TNCs involved in such projects typically have a long experience in formulating contract terms and conducting contract negotiations to ensure that their legitimate interests as investors are properly guaranteed and protected. They may employ in-house lawyers for that purpose. In more complex cases, particularly where project finance is a component, they may engage major law firms with specialist knowledge to act on their behalf. The cost for companies of legal work of this kind is considerable. But where a project goes forward, much of the expenditure will be recoverable; and, where a company borrows on a limited recourse basis, the expenditure typically is included in the capital costs funded by borrowing and secured on the project.

What then is the position on the other side of the negotiating table? If fair and stable contract terms are to be negotiated, the government or a government agency concerned should be able to confront, on equal terms, legal expertise fielded by the investors. Otherwise delays occur or contracts run a risk of not being stable.

How can that be done? In many developing countries — and especially in LDCs — the foreign exchange cost of engaging international lawyers of a professional standing comparable to those employed by investors could prove to be a financial burden. The complexity of the transactions involved, and the need to match the expertise of the prospective investors, is generally well understood in the ministry directly concerned with a project. But quite often there is some scepticism about the need for such expenditure in the Ministry of Finance, particularly when working under budgetary constraints. Fortunately, there is sometimes a provision in World Bank credits for funding appropriate legal advice. However, that is by no means always the case. And even where World Bank funding is available in principle, the appropriate credit may not be in effect and available for draw down at the time when legal advice is most urgently required. Similar difficulties may arise in securing assistance from other international institutions.

Against this background a case can be made for examining the possibility of establishing a facility that would help to ensure that expert advice in contract negotiations is more readily available to developing (especially least developed) countries (and economies in transition) as and when it is required (box VI.4). In that context, the starting point should be a realistic appreciation, now certainly shared by major TNCs, that in important contract negotiations proper legal advice for the government side is of benefit to the investor as well as to the government itself. In purely practical terms, delay and confusion, adding substantially to transaction costs, may result from the inexperience of government negotiators confronted by a well-organized investor team. In any event, the short-term advantage for a TNC of having a *de facto* monopoly of high-level legal knowledge is generally outweighed by the importance, particularly in the natural resources sector and large-scale infrastructure projects, of a well-balanced stable contract which has a fair chance of running the course in a long term project.

Box VI.4. Funding contractual negotations with TNCs

If it is right to see a balance of legal know-how as being in the interest of investors as well as governments, one could consider that developing countries, in appropriate cases, require a prospective investor to advance, at the outset of negotiations, the cost of legal advice for the government. Where a project goes forward under an agreement negotiated with the government or a government agency, the amount advanced would normally be recoverable against income tax; in the case of production-sharing in the petroleum industry the relevant agreement could make such costs specifically cost recoverable. For the investor, the risk – significantly reduced by proper legal advice for government – would be the possibility that no agreement is reached at the end of the negotiating cycle. ^a

While it is not unreasonable to envisage TNCs making advances to meet legal costs to be incurred by a host country government in contractual negotiations, in the absence of any established institutional structure for handling such payments there could be significant problems. The old adage *"he who pays the piper calls the tune"* could result in some reservations affecting both the investor and the government concerned. In particular:

- For the government there could be serious political repercussions if it appeared that it had not received independent legal advice, but had accepted cash payments to fund what would appear as a collusive arrangement with a prospective investor. It would therefore always be necessary for the government to have some way to make clear to the public that, whoever was paying the bill, it had made its own choice in appointing a legal adviser.
- Corresponding concerns would affect the investor. A major TNC could suffer serious damage to its reputation if it appeared to have used cash payments to undermine the integrity of the negotiating process, particularly where an investment was to be made in a competitive context. Indeed United States companies would need to be very certain that funding legal advice for government or government agencies would not breach the provisions of the Foreign Corrupt Practices Act.
- Assuming that arrangements were in place to ensure that transnational funding was not used for any improper purpose, an investor would want some assurance that it was getting reasonable value for its money. If a government had the right to choose its own advisers, the investor would want to know that the advisers chosen were technically competent to handle the business on hand.
- The government would need an assurance that the budget offered by the investor was adequate for the purpose, or in the event of a shortfall would be replenished. A government that found that funds committed for legal advice were likely to run out before the negotiations were over, could be in a very difficult position and under pressure to resolve outstanding issues against its better judgement.

All these problems are in different degrees serious. However, they could for the most part be resolved by creating a facility to legitimize and regulate funding procedures. One possible approach would be for an international institution to create a trust to administer funds put up by prospective investors. (There are cases in which prospective investors have, indeed provided financial resources for the government to enable it to obtain competent legal advice.) The trustees would need to be independent persons of some standing with a practical working knowledge of contract negotiations. However, the role of the trustees would be strictly limited. Where in the context of some major development a government or an agency of the government had agreed with a prospective investor that the investor would advance money to enable the government side to secure specialist legal advice, the role envisaged for the trustees could be as follows:

- To take receipt of the sums advanced and to disperse them against invoices submitted by the firm engaged by the government. A procedure can be envisaged similar to procedures now followed by the World Bank in dispersing the proceeds of an International Development Agency credit to meet lawyers' fees and expenses incurred by government or a government agency.
- To certify that the firm selected by the government to be its legal adviser has the technical competence and experience required for the job. If the government so desires, the trustees could also propose qualified firms from a roster of firms that could be established for this purpose.

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(Box VI.4, concluded)

• To consider the budget proposed and to ensure that the sum committed by the investor is adequate for the purpose and cannot be withdrawn or reduced because the prospective investor does not like the way that the negotiations are going. Generally that would involve requiring payment into an escrow account or the provision of some other security for payment regarded as satisfactory to the trustees.

It is important to appreciate that, under the scheme envisaged, the trustees would have no role in the contractual negotiations They would only administer the funds under their control. They would not be required, or permitted, to adopt a view about any matters at issue between the parties to the negotiations.

Naturally, such procedures would need to be worked out in detail. Consideration could also be given to including in the terms of reference of such a facility provisions for the training of local lawyers to develop the necessary skills in order to provide in the future comparable services to those of foreign established firms.

Source: UNCTAD.

^a In mining and petroleum there would also be the possibility that the results of grass-roots prospecting or exploration might be negative and there would then be no commercial development against which legal costs could be charged. However, that is a risk that many oil companies are already prepared to assume in respect of the payment of signature bonuses which are now, to a large extent, a common form in exploration and production agreements, or at least are relatively uncontroversial.

2. Implementation

A regulatory or contractual framework is only as good as its implementation. The existence of appropriate government institutions for FDI policy administration, coordination and problem resolution is an important ingredient of a country's investment climate. Notwithstanding the regulatory liberalization trend described above, most host countries still have many regulations that require TNCs to obtain a number of permits, licences, approvals, and so on in order to invest and to operate over time. Administrative barriers can discourage foreign (and domestic) investors, especially those who may not be politically connected, operate under strict internal corporate guidelines, do not have local partners, or simply have limited financial resources to hire legal and economic advisors. They can also provide an opening for bribery. All in all, they can increase the transaction costs of investment and operations significantly (table VI.7). For example, one cheese manufacturer in Kyrgyzstan had to obtain

Area of operation	Transaction	Enterprise exposure	Effects on
Business entry	Registration Licensing Property rights Rules Clarity Predictability Enforcement Conflict resolution	Monetary costs to firm Time costs (including compliance and delays) Facilitation costs Expert evaluations of rules and their functioning Number of rules and formalities	Rate of new business entry Distribution of firms by size, age, activity Size of shadow economy Rate of domestic investment FDI inflows, quantity and quality Investment in R&D
Business operation	Taxation Trade-related regulation Labour hiring/firing Contracting Logistics Rules Clarity Predictability Enforcement Conflict resolution	Cost of compliance Higher costs of operation Costs of conflicts and conflict resolution Search costs and delays Insufficient managerial control "Nuisance" value Problems in making contracts Problems in delivery	Business productivity Export growth Size of shadow economy Growth of industries with specific assets or long-term contracting Rate of innovation and R&D Rate of business expansion Rate of investment in new equipment Subcontracting

Area of operation	Transaction	Enterprise exposure	Effects on
Business exit	Bankruptcy Liquidation Severance/layoffs Rules Clarity Predictability Enforcement Conflict resolution	Rate of change of rules Changes in costs and number of rules Availability of rules and documents to firms Rates of compliance and/or evasion Use of alternatives to formal institutions	Rate of exit (and entry) Prevalence of credit Distribution of profitability of corporations

Table VI.7. Illustrative list of transaction costs related to the legal and regulatory environment (concluded)

Source. World Bank, Business Environment Division, Private Sector Development Department.

over 150 licences, permits and approvals in order to invest and operate — with over half of them needing to be renewed yearly. Best-practice administrative systems directly related to foreign investment have certain common characteristics: they are clear, simple, fast and efficient. A "red tape" analysis can be of help here (box VI.5).

Box VI. 5. Administrative barriers to FDI: the red tape analysis

To assist governments in their efforts to remove or streamline administrative barriers, an increasing number of countries undertake a "red tape" analysis, as offered by the Foreign Investment Advisory Service (FIAS), a joint service of the International Finance Corporation and the World Bank.^a The red tape analysis consists of identifying the major obstacles and their subsequent impact on the investment climate. The approach is voluntarily pragmatic and consists of documenting, in precise detail, the administrative requirements for establishing a business enterprise and making it operational. This includes all licences, approvals, registrations, permits, or other formalities required to be in full compliance with existing laws and regulations. In addition, data on the delays associated with each step, the costs and the forms of information required are gathered during the process. The views of government officials are compared with the experience of private investors, with a greater attention to foreigners when necessary. Last but not least, an international comparison is generally provided to point out the need for continued reforms as well as international best practices or benchmarks.

The administrative obstacles faced by investors are generally classified into four categories, roughly corresponding to the chronological process of making an investment:

- general approvals and licences required of all firms;
- specialized or sectoral approvals required of firms in particular industries;
- securing and developing land for business facilities;
- licences or other requirements needed to make the firms operational.

In the first category, the greatest delays are due to excessive controls (such as screening process for approval of FDI projects or detailed feasibility studies), duplicative procedures, and the lack of transparency or information. A simple but important source of delay can be that private investors have to comply with the same requirements to different government agencies (registrar of commerce, tax authorities, statistical agencies, etc.) because they do not share information. Other major obstacles have been found in countries that require special approvals and award fiscal incentives for qualifying investment. The lack of coordination between local and central governments can also be a major source of delays for registration and tax procedures.

An additional layer of scrutiny and evaluation of projects by governments is applied for certain industries, typically tourism, mining, fisheries, infrastructure, and agriculture. Here, concession procedures can be particularly non-transparent, especially in infrastructure and tourism. In some countries, governments prescribe management structures and qualifications requirements that often limit FDI, often contradicting stated policy in general laws.

It is in buying or leasing land, construction facilities and securing utilities services that the greatest delays are encountered. Poor policy formulation, cumbersome and non-transparent procedures for

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(Box VI. 5, concluded)

making land available for commercial use, and strict approval procedures can be among the causes of significant delays. In one country, for example, three separate documents are required to validate completion of construction, all requiring multiple inspections and signatures. In another country, officials routinely charged tens of thousands of dollars for securing leases of land. Getting connections to utilities services can also take months due to antiquated services and the limited capacity of national services. Bribes may be involved.

Once operational, companies face a different series of interactions with government agencies. These are typically regulations and controls on foreign trade, foreign exchange, labour and social security. Not only are procedures complicated and duplicative but there is also much to be done in adapting former control-oriented institutions to a role of selective monitoring and enforcement. In many countries, controls and import licences are still required even though the government has in principle abandoned them in its general trade reforms.

Taken individually, administrative procedures may appear to be not an important obstacle to investment. When added together, however, the whole maze of procedures can mean delays of up to two years to get an investment approved and operational. In one country, for example, a private investor has to prepare 23 different files and go to 31 government agencies (of which at least six require multiple formalities). Government efforts to reduce or remove these obstacles can be a daunting task, as they cover a broad range of policy, administrative and institutional issues and problems. However, once investment procedures are mapped out, it is easier to identify areas of duplication, excessively complex and intrusive requirements, or ineffectual implementation. Recommendations typically focus on areas in which administrative procedures can be simply eliminated, streamlined or otherwise improved to ensure they are not constraints. Where regulatory controls or informal requirements are maintained, the emphasis of recommendations is often on improving implementation. This often means changing government agency perspectives from one of control and distrust to service provision and facilitation, along with ensuring compliance.

Lessons from experience

Documenting administrative barriers can help a government address administrative constraints in a comprehensive manner by providing a global picture and, thereby, increasing awareness of the reality that faces private investors. Still, implementing the appropriate reforms is generally a long and difficult process. The FIAS experience in a range of developing countries has helped to identify the three following lessons for success:

Open dialogue and transparency. The study of administrative barriers is a tool to encourage governments to reconsider current practices and shift to a more service-oriented mentality. In this process, dissemination of the main findings is essential in order to generate interest and exchange of opinions among the political and business communities. Organizing workshops has proved to be useful to discuss the findings, and hopefully to reach consensus on how to proceed with reforms. In particular, they allow hearing the feedback from concerned agencies and increasing their responsibility for making reforms.

Political commitment and leadership. An impartial analysis can serve as a catalyst, drawing on experience elsewhere to provide alternative approaches to meeting legitimate concerns. However, national leaders must take the initiative in the reform process, pressuring often-reluctant agencies to alter their ways of doing business. Strong leadership is needed, and "champions" have to be designated to oversee and assists the reform effort across the range of agencies. In practice, investment promotion agencies can be very effective in supporting this process, serving as advocates for potential investors the country is otherwise losing.

Priorities. Governments cannot address all problems simultaneously. Not only do they not have the institutional and administrative capacity to carry forward all the reforms, but they also will have to convince multiple operators and mid-level bureaucrats of their benefits. Efforts need to focus on the agencies that are willing to experiment with reform, and engage in fundamental changes. Their initial success can serve as models for some of the more recalcitrant agencies. Supporting this effort with additional inputs of technical expertise and in some cases financial resources can be very productive.

Source: Emery and Spence, forthcoming.

^a FIAS has provided assistance in Bolivia, Ghana, Jordan, Latvia, Lesotho, Madagascar, Mali, Mauritania, Mozambique, Namibia, Senegal, Swaziland and Uganda.

3. Promotion

The accelerated process of FDI liberalization has provided TNCs with an ever-increasing choice of locations. As a result, they have become more selective and demanding as regards the investment climate. Competing intensely with one another for FDI and finding that liberal policies are no longer enough, host countries have increasingly adopted proactive measures to attract FDI.

To attract FDI flows, a number of countries may need, first of all, to improve their image as a favourable location for FDI projects, or, quite simply, to put themselves on the "map" of investors. Investment promotion through image building is particularly important for countries that are small, remote, have strongly discouraged FDI in the past, or have suffered from adverse publicity. Countries in Africa, for example, are suffering from an undifferentiated image, as a result of which many of them do not make it on the "long list" of potential investment sites, let alone the "short list" (box VI.6).

Image changing, to be effective, needs to be accompanied by the dissemination of information. This may consist of general information about the country and its investment opportunities (e.g. economic data, industry profiles, lists and descriptions of potential joint venture partners, privatization programmes,

Box VI.6. Changing the image of Africa

More than any other developing region, Africa has an image problem that adds to other difficulties the continent has to attract FDI. In order to help bring about a more differentiated picture of Africa, UNCTAD joined hands with the ICC, MIGA and UNDP to disseminate information about Africa's investment potential. One result of this collaborative effort has been the production of Focus on the New Africa: Fact Sheet on Foreign Direct Investment (www.unctad.org). It lists interesting facts for foreign direct investors. These facts which represent a summary of the findings in the UNCTAD booklet Foreign Direct Investment in Africa: Performance and Potential (UNCTAD, 1999i) include the high profitability of FDI in Africa, the increasing number of home countries from which FDI flows into Africa, and the considerable share of FDI in Africa that goes into non-traditional industries, in particular manufacturing and services. The main message of the Fact Sheet is: "Do not miss out on Africa! Look at it closely, country by country, industry by industry, and opportunity by opportunity. Your competitor may well be there already." Thus, the Fact Sheet suggests to foreign companies not to overlook Africa's investment potential and to differentiate among the more than 50 countries of the continent. The fact sheet is being disseminated worldwide to reach the principal target audience — foreign direct investors.

Source: UNCTAD.

suppliers). It may also cover legal information about the laws and regulations governing FDI and private companies in the country, investment incentives and administrative structures and procedures relevant to foreign investors. Information about investment opportunities and the regulatory framework is particularly important as, without such information, a country may simply not be considered in investment location decisions for a range of projects. Such information is typically sought by TNCs from international consultancy firms, in the form of such firms' investor guides. But, typically, they focus on more promising countries. Thus, for instance, a survey of such guides prepared by the biggest international consultancy firms showed that, out of 261 guides, only three covered LDCs (UNCTAD, 1999e). In other words, LDCs need to make an extra effort to inform investors about investment opportunites and the regulatory framework governing them.¹⁸ International organizations can help in this respect (box II.3).

In many instances countries feel that, apart from providing information to foreign investors, they need to give positive inducements in the form of financial, fiscal or other incentives, especially to compensate for inadequate economic conditions or to shift the balance of location attractiveness in individual projects. Incentives have increased rapidly since the mid-1980s (UNCTAD, 1996d). Countries, provinces and local authorities offer them. However, there is evidence that, overall, incentives are not among the various factors that determine inward FDI. Once, however, a decision has been made to undertake FDI in a given region or a given country, incentives may have an impact on influencing the precise choice of location within the region or country. If one country in a region or one locality in a country offers incentives and others do not, then – other things being equal – incentives can influence locational decisions,

tilting the balance in favour of the incentive provider. Apart from the costs and benefits of incentives as such, there is also the question of what types of incentives may be more efficient. Financial incentives are up-front incentives that are given without a guarantee that the investment project will be fully realized. Fiscal incentives do not require an immediate cash expense; they come only into play once a project is successful. Some other incentives – e.g. infrastructure – may be of benefit to domestic investors as well. Countries seeking to attract FDI need therefore to be careful in weighing the costs and benefits of offering incentives, and the type of incentives they offer.

The promotion effort does not end once some, or even a significant number, of foreign investors have established themselves. At this point, after investment services come into play. An important aspect of effective after-investment services is to reduce the "hassle costs of doing business" for established investors so as to attract even more potential investors. These services can involve, for example, assisting foreign investors in obtaining all permits required to operate a project beyond the initial approval of an investment; and acting as the contact point for foreign investors who have problems problems with joint venture partners, suppliers and purchasers of their products, the tax authorities, customs authorities, visas and work permits for expatriate personnel, etc. As part of these services, foreign investment promotion agencies can also explore with existing investors ways in which their existing investments can be leveraged into further investment. The additional investment may be by the existing investor itself (sequential investment), through increased capacity or increased domestic value added at its current output capacity. Foreign investors can also provide information on the potential for attracting upstream suppliers to invest in the host country, or downstream purchasers of their products (associated investment). Some of these activities can be facilitated by developing an investor tracking system. Such a system not only tracks the foreign investor through the approval process, but follows performance after an investment has been implemented. An investor tracking system has several advantages: it can be used to provide information to future investors concerning the current investors in their industries; and for follow-up investors to encourage sequential investment, linkages to domestic suppliers, and further investment by foreign suppliers.

4. Targeting

The more successful investment-attraction programmes target specific types of investors. Targeting can aim at increasing FDI inflows in general and, specifically, at bringing investors with certain types of technology or other characteristics in which a host country is interested. Targeting helps in several ways: to take due account of overall national objectives for FDI (e.g. priorities for specific sectors, industries and /or sub-regions); to identify potential investors who are most likely to be attracted by the locational advantages the country has to offer; to fine-tune promotion efforts to the interest of specific investor groups; and to make the use of limited investment promotion budgets more efficient.

There are about 60,000 TNCs: where does one start? To begin with, one should look at companies and home countries that are already investing in the host country: are they reinvesting their earnings? Could they invest more? Could they upgrade into more value-added activities? Next, one could look at the types of FDI entering other host countries with similar locational advantages: why are they investing there and not here? Should there be a focus on regional investors?¹⁹ Answers to such questions provide feedback on the effectiveness of investment policies and procedures, and where their functioning can be improved to reach best practices.

Most aggressive targeting strategies focus on "footloose" industries and "sunset" industries. Footloose industries are industries that are not location-dependent (either resources or markets) and are usually export-oriented. Firms in these industries locate strategically, according to where they can secure a competitive advantage *vis-à-vis* other firms in specific regional or global markets. For example, textile manufacturers may locate facilities in countries with special trade privileges to otherwise closed third-country markets. Thus, some countries have successful investment attraction strategies by positioning themselves as gateways to specific regional markets. Sunset industries are industries that face slowing sales in mature markets and

growing sales in world markets. While firms in these industries do not necessarily relocate plants, they do expand operations globally through FDI, which is often market-seeking. Such firms, with long-term corporate strategies to expand abroad, are therefore suitable for investment targeting, particularly by large host countries.

Developing countries with small markets are likely to be more successful in targeting intra-industry activities, particularly component manufacturing. The spread of integrated international production has also created functional niches for developing countries in fields such as accounting, data processing and the programming of software applications. Regional groupings, such as ASEAN, have collectively targeted complementary intra-industry activities. For example, in the automobile industry, engine manufacturing has been located in one country and transmission manufacturing in another. Such complementation schemes have been implemented on a brand-to-brand basis, targeted at specific companies at a subregional level.

Yet another approach is to identify gaps in domestic industries, and to target foreign firms that could complement domestic firms through backward and forward linkages, thereby strengthening national technological capabilities and production capacities in core industrial clusters.

In conclusion, targeting involves a number of decisions revolving around industries, firms, activities, and home countries. It requires extensive research to identify firms that are likely candidates to invest in a country, and ways in which those investments can be made to meet investor needs and development objectives. A recent example of targeting a single investor in an export-oriented high-technology industry is Costa Rica's sucess in attracting a \$300 million investment by Intel Corporation (box VI.7). While having a competitive investment climate is of course important, the importance of the personal skills in marketing a country and understanding the needs of foreign investors should not be underestimated. This speaks for the need for investment promotion agencies in developing countries to ensure that their staff possess appropriate skills and training.

Box VI.7. Attracting high technology investment: Intel's Costa Rica plant

In November of 1996, Intel Corporation announced plans to construct a \$300 million assembly and test plant in Costa Rica. The announcement came as a triumph to Costa Rican authorities and to its private-sector based investment promotion agency, CINDE, both of whom had worked for months to attract the United States-based technology firm. It also aroused considerable interest in the broader foreign investment community. With annual revenues of over \$20 billion, Intel is one of the world's largest corporations and a major force in the global electronics industry. Costa Rica, meanwhile, is a small country. With a population of 3.5 million and only limited development in electronics and other high technology industries, it was in many ways an unlikely choice for Intel.

Why, and how, did Intel choose Costa Rica? What did Costa Rica do to beat out several larger and, by some measures, more qualified competitors? And finally, what lessons, if any, can be drawn from this experience to guide other developing countries seeking to attract world class foreign investors?

Intel's site selection process

The decision that ultimately brought Intel to Costa Rica was more of an ongoing process than a discrete event. Because Intel expands capacity so frequently, it is essentially always in the midst of reviewing possible sites and evaluating investment alternatives. Early in 1996, Intel executives decided to research sites for a new assembly and test plant. Regional diversification was a threshold factor, reflecting management's decision to avoid concentrating more than 30 per cent of its revenues from any one product category at any facility or in any single geographic region. This consideration brought the Central and Latin American region into play.

Assembly and test plants are one of the two types of facilities that constitute Intel's manufacturing base. The other, a fabrication plant, is where the heart of the microprocessor is produced. Compared

(Box VI.7, continued)

to fabrication plants, assembly and test plants are relatively inexpensive and labour-intensive. Assembly and test plants cost around \$100 to \$300 million to construct and usually employ between 1,500 and 4,000 people. Wages are the most important variable cost for these facilities, typically 25-30 per cent of total operating costs. To run the new assembly and test plant as cost-effectively as possible, Intel knew it had to find a low-cost, yet highly trainable work force, where qualified engineers were available, and where employee turnover could likely be kept to a minimum.

Site selection for most TNCs begins with a "long list" of candidate countries that meet a company's baseline criteria. Although never formally ranked or weighted, Intel's baseline criteria included the following:

- Stable economic and political conditions. To be a contender, a country had to have positive economic conditions, an established and reliable political system and a reasonably transparent operating and legal environment.
- Human resources. A country needed to have an adequate supply of technical and professional operators and, importantly, a non-union work environment.
- Reasonable cost structure. Financial considerations included the cost of labour and overheads, taxation rates, tariffs, customs fees, and the ease of capital repatriation. Because all the plant's output was for exports, tariffs and customs fees were particularly important.
- A "pro-business" environment. Loosely defined, countries had to have governments interested in assisting economic development and FDI. Some signs of economic liberalization also had to be apparent.
- Logistics and manufacturing lead time. Operating under continuous time pressures, Intel had to ensure that products coming from its plants could move efficiently from the plant to an international departure point, and then expeditiously through customs and any other export procedures.
- Fast-track permitting. Before investing in any country, Intel had to be assured of receiving all necessary permits within 4-6 months. Any delays could compromise the project's very tight schedule, itself necessitated by short product life cycles in which profit opportunities were heavily concentrated in the cycle's initial stages.

Decision to invest

Accounts vary as to how Costa Rica actually appeared on Intel's radar. By one version, Costa Rica's inclusion on the candidate list was almost an accident – a senior Intel executive had travelled to Costa Rica on vacation and simply liked what he saw. Nonetheless, scepticism over Costa Rica's appropriateness was a persisting theme in the early deliberations of the selection committee. As one committee member saw it, Intel was so big and Costa Rica so small that the combination would be like trying to fit a whale into a bathtub.

The view from within Costa Rica was different. Since the early 1980s, policies to attract non-traditional export-oriented FDI had been an important part of Costa Rica's overall development strategy. CINDE, the country's private-sector based investment promotion agency, was the strategy's main executing agent. The first industry chosen for targeting and promotion was the apparel industry. But by the late 1980s, this focus was shifting to the electronics industry – a reflection, on the one hand, of the inherent attractiveness of this rapidly growing industry and an acknowledgment, on the other, that Costa Rica would be increasingly hard-pressed to compete for the location of an industry driven mainly by very low-cost labour.

A core part of Costa Rica's strategy turned on showing Intel that the country's size – far from being a disadvantage – was in fact a net advantage by ensuring that Intel's team would have easy and timely access to all the country's key decision-makers. Employing a "small is beautiful" strategy expounded by President Figueres, promotion officials emphasized the efficiencies and flexibilities a small country could provide. A key part of this effort was to take advantage of the close-knit

/...

(Box VI.7, concluded)

government, business and media communities to create an "all hands on deck" mentality towards the project. To be sure, there were many issues of substance on the table, from the cost of electricity to the frequency of cargo flights and the adequacy of national technical training, to name a few. The team approach adopted by Costa Rica, often involving the President himself, ensured that these matters could be dealt with quickly, and in a constructive rather than an adversarial fashion.

Throughout these negotiations, Intel lived up to its reputation as a hard bargainer, but the company did not explicitly seek nor, importantly, did Costa Rica offer, special arrangements that would not be available to other investors. The transparency and even-handedness of Costa Rica's bargaining posture impressed the Intel team and was evidently a factor in the choice of Costa Rica over some competing sites.

Lessons

Like any investment of this size and scope, Intel's selection of Costa Rica was a highly specific, idiosyncratic event. Intel is anything but a run-of-the-mill investor, and its site selection process and investment demands are perhaps unique, even among sophisticated TNCs. Costa Rica, too, is a special country, very stable, uncommonly small. Still, there may be some lessons in this for other developing countries hoping to lure large high-technology firms or indeed any sizeable foreign investors:

- The promotion agency, CINDE, started with a strategy grounded in a clear understanding of the country's strengths and their appeal to a discerning transnational investor. These were, in effect, the basic characteristics of Costa Rica's political and economic system, i.e. democracy, stability, an educated workforce, suitable infrastructure, a facilitating attitude towards private enterprise, and a transparent legal system.
- The promotion strategy identified not only a desirable industry but specific companies within this industry, their individual strategies and operating styles.
- The country formed a cohesive motivated team, all of whose members told the same story, and which, collectively, had the power to get the job done.

In sum, the "core" lessons to be derived from Costa Rica's experience – know your strengths, know your client, and make sure your team is indeed a team and has the power it needs – constitute sound advice for promotion generally, whatever a country's level of development or specific targeting goals may be.

Source: Spar, 1998.

* * *

To benefit from FDI, a country has first to receive it. To obtain FDI, it must be an attractive location for foreign investors. An FDI-enabling framework is a precondition. The administrative system for FDI also needs to be effective in dealing with foreign investors and their needs. Economic conditions conducive to investment are the key determinants. One danger for a country in which other components of the FDI environment are not attractive is that the government may try to compensate for these deficiencies by implementing an overly-generous incentives system. General investment promotion is increasingly being complemented by after-investment services and, in particular, investor targeting.

Notes

- ¹ For a review of the literature, see Barro and Sala-i-Martin , 1995.
- ² It should be kept in mind that most of the world's 60,000 TNCs are SMEs which do not necessarily have a financial advantage over their domestic counterparts. Access to finance capital by domestic firms can also differ from country to country. For a review of studies on the financial asset advantages of TNCs see Dunning (1993, pp. 150-151 and 162).
- ³ United States data calculated from United States Department of Commerce, US Direct Investment Abroad. Operations of US Parent Companies and Their Foreign Affiliates, various issues.
- ⁴ The low ratio in Canada suggests further that the dividing line in this respect may not necessarily lie between developing and developed countries, but may be determined by other factors.
- ⁵ Then, for consistency reasons, a corresponding balance-of-payments item on the debit side, repatriated earnings, should not be included, either.
- ⁶ The debt creating component of FDI inflows, intra-company loans, accounted for 18 per cent of developed and developing countries' inflows of FDI in 1990-1998 (figure I.1). As noted elsewhere, FDI inflows are not the only source of financing of foreign affiliates. The affiliates can finance their activities with funds raised in international markets which are debt-creating not only for the firm but also for the host countries. This raises the question whether affiliates' debt and local companies' debt have similar implications for the host country if it runs into a debt problem.
- ⁷ It has to be kept in mind that there is no direct link between repatriated earnings and FDI inflows in a given year. Repatriated earnings are part of profits (that are not reinvested in a host country) on the entire FDI capital invested in the country in the past.
- ⁸ After a flurry of studies at that time, little research was undertaken on this issue because, in the end, there was a recognition that the balance-of-payments effect of FDI depended largely on the assumptions that were made about the counter-factual situation and its indirect effects.
- ⁹ The transfer pricing problem is not restricted to dealings between fully-owned affiliates and parent companies (or affiliates in other countries). It may also arise in joint ventures, where it may be employed by a savvy foreign partner to shift profits from the local partner to the TNC.
- ¹⁰ The reason is that FDI is a form of financing expenditures by foreign affiliates and is a balance-of-payments measure, while investment is a national accounts measure. FDI can be used to finance investment expenditure in the national accounts sense but it does not have to be fully used for this purpose, as explained below.
- ¹¹ FDI data are widely used because they are available for most countries in distinction from total investment expenditures of foreign affiliates (which are available only for the United States). Given that the United States accounted for one quarter of world outflows of FDI in 1991-1997, United States data can shed some light on the relationship between FDI flows and investment expenditures.
- ¹² The ratio was unusually high in Africa: while capital expenditures were quite steady, FDI inflows fluctuated and there were several years during the period considered in which Africa as a whole experienced divestment by TNCs (that is, negative FDI inflows). The ratio for Latin America and the Caribbean was close to one, but after the exclusion of the Caribbean countries and Panama, it increased to 1.3. The reason is that a number of countries in the Caribbean region are financial centres with high FDI inflows and minimal capital expenditures of affiliates. Investment in these affiliates is low because they are shells acting as conduits for investment elsewhere.
- ¹³ The share for all countries was 58 per cent; for Mexico 58 per cent; for Brazil 72 per cent; for Germany 69 per cent; for France 64 per cent (United States Department of Commerce, 1998c).
- ¹⁴ There is evidence that it would not be justified to classify loans by definition as short-term financing. When a foreign affiliate receives funds from its parent company their distribution between debt and equity may be guided by tax and regulatory factors. Where, for example, the rate of corporate tax in a host country exceeds the rate in a home country, there may be an incentive to denominate the maximum proportion of the affiliate's liabilities as to the parent as debt "in order to siphon revenues as tax-deductible interest past the foreign tax collector" (Caves, 1996, pp. 139-140).
- ¹⁵ To prevent this from happening, Chile, a small country with liberal policies towards FDI, has retained the right to limit the access of foreign companies to the domestic banking system, if national conditions so warrant. The provision has never been invoked, but its very existence is a reminder that, for a small country, borrowing on domestic markets by foreign affiliates may, under certain circumstances, be problematic.
- ¹⁶ During the 1960s, many developing countries regarded the financial resources possessed by TNCs as the primary reason for attracting them. Indeed, their policies were designed to attract capital inflows, while trying to limit the perceived negative effects of FDI on the economy via, e.g., restrictions on industries

open to FDI or on the maximum percentage of equity permitted by TNCs. Today, considerably more attention is being paid to the non-financial components of the FDI package.

- ¹⁷ For a list of these countries, see UNCTAD, 1998a, table III.1.
- ¹⁸ Over the past decade, most developing countries have developed Internet web sites to provide foreign firms with information on their countries, their laws relating to FDI, and specific investment opportunities. Creating a web site provides a relatively inexpensive means to build a country's image as an investment site and to disseminate information.
- ¹⁹ In the case of developing countries, particularly in Asia and Latin America where intra-regional flows account for a significant and growing share of FDI, this is of particular relevance. South African investors are also playing an increasing role in sub-Saharan Africa.

Annex to chapter VI Determining crowding in and crowding out effects

Investment is determined by many variables. Among them, FDI is of small importance for most countries (table VI.5). Therefore, the direct and indirect effects of FDI on investment can be determined only after one has controlled for the effects of other variables.

An analysis of the effects of FDI on investment was undertaken, beginning with a simple equation where investment in a country is the sum of domestic investment (IDOM) and FDI:

$$I = IDOM + FDI \tag{1}$$

From the point of view of the recipient country, FDI can be considered to be an exogenous variable (because it depends on conditions in the world economy, TNC strategies, etc.) On the other hand, domestic investment needs to be specifically modelled. A large literature on investment in developing countries (Rama, 1993) offers a wide choice of explanatory variables. After experimenting with a variable that proxies the capacity utilization rates¹, the growth rate was chosen as a variable for this test. Since the results regarding crowding in (CI) or crowding out (CO) were quite robust to different model specifications, only those stemming from the simplest model are reported. The model, then, is basically an accelerator model of investment:

$$IDOM = \alpha + \beta_1 G \tag{2}$$

where G is the growth rate.

By replacing (2) in (1), a model for total investment (domestic investment plus FDI) was obtained:

$$I = \alpha + \beta_1 G + FDI \tag{3}$$

The model of equation (3) assumes that FDI has no macroeconomic externalities on domestic investment and that, therefore, one dollar of FDI becomes one dollar of investment. Since the purpose of the exercise is to verify whether these externalities exist and, if they do, whether they are positive of negative, a more general formulation is used:

$$I = \alpha + \beta_1 G + \beta_2 FDI \tag{3a}$$

An empirical finding that $\beta_{2} > 1$ is evidence for CI while $\beta_{2} < 1$ is evidence for CO.

A version of this model was estimated for a panel of data for 39 countries (12 in Africa, 12 in Asia, 12 in Latin America and the Caribbean and three in developing Europe) over the period 1970-1996. The investment equations for each of these regions were the following:

$$I_{i,t} = \alpha_i + \beta_1 F_{i,t} + \beta_2 F_{i,t-1} + \beta_3 F_{i,t-2} + \beta_4 I_{i,t-1} + \beta_5 I_{i,t-2} + \beta_6 G_{i,t-1} + \beta_7 G_{i,t-2} + \varepsilon_{i,t}$$
(4)

where I = investment to GDP ratio; F = FDI to GDP ratio; G = growth of GDP; the \Box 's are fixed country effects; and \Box is a serially uncorrelated random error.

The equation used to determine the specific effect of FDI on investment in each country is an adaptation of (4) that considers the possibility that, within each region, the b's associated with FDI can vary from country to country:

$$I_{i,t} = \alpha_i + \beta_{1,i}F_{i,t} + \beta_{2,i}F_{i,t-1} + \beta_{3,i}F_{i,t-2} + \beta_4I_{i,t-1} + \beta_5I_{i,t-2} + \beta_6G_{i,t-1} + \beta_7G_{i,t-2} + \varepsilon_{i,t}^{'}$$
(5)

The model allows for lags in the execution of investment projects, both domestic and foreign. The data are from IMF, *International Financial Statistics* and World Bank, *World*

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Development Indicators. All data series are in constant 1987 prices. For all the estimations of the investment function, the method employed was that of Pooled Estimations of Seemingly Unrelated Regressions (SUR).

Note that long-term CI and CO will be tested. For this the relevant coefficient is:

$$\boldsymbol{\beta}_{LT} = \frac{\sum_{j=1}^{5} \boldsymbol{\beta}_{j}}{1 - \sum_{j=4}^{5} \boldsymbol{\beta}_{j}}$$
(6)

3

The criterion used to determine CO/CI is the value and significance of β_{LT} . If, with a Wald test, β_{LT} is determined to be significantly greater than one CI takes place. Evidence for CO is the coefficient β_{LT} significantly smaller than one. On the other hand, if β_{LT} turns out to be equal or close to one, an increase in FDI raises total investment by the same amount and has a neutral (N) effect on domestic investment.

The regional results are shown in table VI.A.1. For the period 1970-1996 as a whole, there is CO effect in Latin America and the Caribbean and CI effect in Asia. In Africa, FDI increased investment one-for-one. Only in Asia there is evidence of strong crowding in. This is the region where aggregate investment, by both TNCs and domestic firms, has been strongest.

If the sample period is subdivided into two shorter periods representative of the last two decades (1976-1985 and 1986-1996), Africa shows strong CI effect in the first period and a weak CI effect (in fact, close to N effect) in the second one. In Latin America the CO effect has weakened between the two periods, as the coefficient has changed from a negative to a positive one. South, East and South-East Asia shows strong CI effects in both subperiods while the effects in West Asia have changed from CI effects to CO effects (for the entire period CI effect prevailed).

As regards the classification of individual countries into the three categories for the period as a whole², African countries are found in all three-category groups. Latin American and Caribbean countries were either in the group with N effects or CO effects, while in Asia there was an N effect and CI effect (table VI.A.2).

This analysis is crucially dependent on FDI being exogenous to the variables determining investment (here, the growth rate with one- and two-year lags). In order to test for the exogeneity of FDI, panel regressions were run for the five regions with FDI as the dependent variable and the growth rate with one- and two-year lags as the explanatory variables. The two equations that were estimated were as follows:

$$F_{i,t} = \delta_i + \gamma_1 G_{i,t-1} + \gamma_2 G_{i,t-2} + u_{i,t}$$

$$F_{i,t} = \delta'_i + \gamma'_1 G_{i,t-1} + \gamma'_2 G_{i,t-2} + \gamma'_3 F_{i,t-1} + \gamma'_4 F_{i,t-2} + u'_{i,t}$$
(8)

These two models were estimated with data for 1970-1996 using SUR with fixed effects. The results leave little doubt that the variables explaining domestic investment (past income growth) do not explain FDI (table VI.A.3). Therefore, it is justified to include FDI as an exogenous variable in the equations for total investment.

The estimated coefficients of $G_{i,t-1}$ and $G_{i,t-2}$ are not significant, with one exception. In South, East and South-East Asia, the estimate of g_1 in equation (7) is significantly different from zero. In equation (8), when the lagged values of FDI are introduced into the model, the coefficient becomes insignificant. Since the preferred model is equation (8), problems of endogeneity

between the variable explaining domestic investment (lagged growth) and FDI can be discarded for all three regions. Adjusted R squares of most estimated equations are low. In the two cases where adjusted R squares are high (estimates of equation (8) for South East and South-East Asia and Latin America and the Caribbean), their level can be attributed solely to the effect of lagged FDI.

Notes

- ¹ The variable used was the difference between potential GDP (obtained using a Hodrik-Prescott filter of GDP) and actual GDP. The results of using this variable in the model instead of the growth rate and in conjunction with the growth rate were quite satisfactory from an econometric point of view.
- ² The analysis for individual countries could not be undertaken for decade-long subperiods, since the data are too scant to allow for coefficient estimation.

Period and region	Number of Countries	Long-term coefficient linking FDI and I	Long-term effect
1970-1996			
Africa	12	0.89	Nª
South, East and South-East Asia	8	2.71	CI
West Asia	4	1.74	Na
Europe	3	2.11	Na
Latin America and the Caribbean	12	-0.14	CO
1976-1985			
Africa	12	2.19	CI
South, East and			
South-East Asia	8	5.56	CI
West Asia	4	1.31	Na
Europe	3	2.48	CI
Latin America and the Caribbean	12	-1.22	CO
1986-1996			
Africa	12	1.30	CI
South, East and			
South-East Asia	8	2.91	CI
West Asia	4	-1.81	CO
Europe	3	-0.96	CO
Latin America and the Caribbean	12	0.04	СО

Table VI.A.1. Developing country regions: effects of FDI on investment

^a Parameter not significantly different from one (Wald test).

Table VI.A.2. Effects of FDI on investment in individual countries, 1970-1996

Crowding in	Crowding out	Neutral effect
Africa Côte d'Ivoire Ghana Senegal	Africa Central African Republic Nigeria Sierra Leone Zimbabwe	Africa Gabon Kenya Morocco Niger Tunisia
South, East and South-East Asia Korea, Republic of Pakistan Thailand		South, East and South-East Asia China Indonesia Malaysia Philippines Sri Lanka
West Asia Oman Saudi Arabia		West Asia Egypt Jordan
Europe Cyprus Turkey	Europe Poland	
	Latin America and the Caribbean Bolivia Chile Dominican Republic Guatemala Jamaica	Latin America Argentina Brazil Colombia Costa Rica Ecuador Mexico Peru

Table VI.A.3. Panel estimations with FDI as a dependent variable and growth lagged once and twice as explanatory variables, 1970-1996

(Probabilities associated with the estimated coefficients and adjusted R^2)

Region	P-values of coefficients in equation (7)	P-values of coefficients in equation (8)	
Africa			
■ G(-1)	0.0504	0.4249	
■ G(-2)	0.1336	0.1568	
Adjusted R ²	0.097	0.041	
Asia, South, East and South-East			
■ G(-1)	0.0198*	0.4984	
■ G(-2)	0.9959	0.6484	
Adjusted R ²	0.082	0.880	
West Asia			
■ G(-1)	0.9227	0.2900	
Adjusted R ²	0.013	-0.196	
Latin America			
■ G(-1)	0.7184	0.4984	
■ G(-2)	0.0620	0.6484	
Adjusted R ²	0.082	0.560	
Europe			
■ G(-1)	0.6407	0.0460*	
Adjusted R ²	0.0608	0.800	

* Significantly different from zero at the five per cent level.