4

Sustaining and Promoting Equity-Related Finance for Developing Countries

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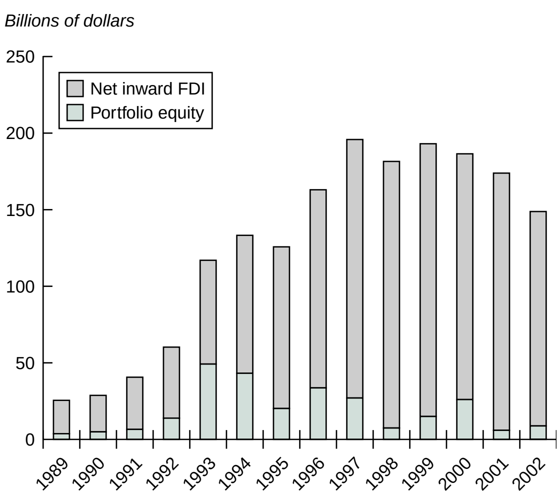
THE FLOW OF EQUITY-RELATED FINANCE TO developing countries takes two forms: portfolio investments and direct investments. Combined inflows of both forms totaled a net of about $152 billion in 2002, down from $178 billion in 2001 and from their peak of $196 billion in 1997 (figure 4.1). This decline mirrors the weakness of global equity markets in recent years. However, when viewed against the plunge in debt outstanding to private-sector creditors discussed in chapter 3, the flow of private-sector equity-related capital appears remarkably robust. Indeed, its steadiness is a key part of the significant rotation from debt to equity in the pattern of private financing for developing countries.

Figure 4.1 Net equity flows to developing countries, 1989–2002



Sources: World Bank, *Global Development Finance: Country Tables* and sources cited therein, various years; UNCTAD, *World Investment Report 2002*; and World Bank staff estimates for 2002.

The first part of this chapter focuses on FDI. After reviewing developments in 2002, the key issue addressed is that of the sustainability of the current, relatively high level of flows. The main message is that although there are several reasons to believe that FDI flows can be sustained at or above current levels in the years ahead, such a result cannot be taken for granted—there are clear vulnerabilities to the current level of FDI. Various factors have reduced returns on FDI in recent years, while the willingness and ability of companies in high-income countries to make long-run, strategic investments in developing countries has been reduced by financial-market pressures.

The second part of the chapter reviews developments in portfolio equity flows in 2002 and early 2003 and puts them in their historic context. It then goes on to ask a basic question about portfolio equity flows: If FDI investors find equity-related investing in developing countries such a good idea, why are portfolio equity flows relatively weak? Why have they failed to rise since the early 1990s? For policymakers faced with weak debt flows, this is an important issue to address. The simple fact is that, due to regular crises and volatile growth, emerging-market equities have offered poor returns over an extended period. Policymakers in developing countries need to maximize the attractiveness of local equity by strengthening domestic institutions, most notably those related to corporate governance, with a view to protecting the rights of minority shareholders.

The chapter closes with a forecast for equity flows for 2003 and beyond. In line with the analysis of the global outlook presented in chapter 2, the forecast is for a gradual rise in flows. For 2003, overall equity inflows are projected to be

$159 billion—$145 billion in FDI and $14 billion in portfolio equity investments.

Direct investment flows in 2002

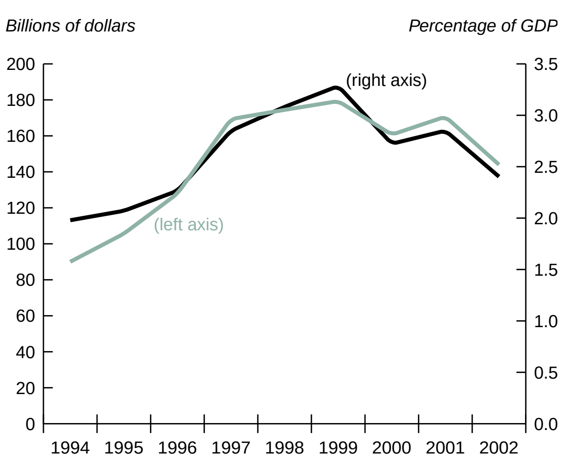
Net FDI inflows to developing countries fell sharply in 2002 to an estimated $143 billion, or 2.4 percent of GDP, compared to $172 billion (2.9 percent of GDP) in 2001 (table 4.1; figure 4.2). The decline in FDI flows to developing countries was associated with a slowdown in privatization and mergers-and-acquisition (M&A) transactions (figure 4.3).[1] The downturn in FDI flows to developing countries occurred against an even sharper decline (27 percent) in global FDI flows—from $735 billion in 2001 to $534 billion in 2002. As a result, developing countries' share in global FDI actually rose in 2002. Global M&A transactions declined sharply (49 percent) in 2002. The decline was especially steep in the United States, where, in addition to economic slowdown, corporate accounting scandals undermined M&A activity.

Table 4.1 Net inward FDI flows to developing countries, 1999–2002
(billions of dollars)

	1999	2000	2001	2002
Total	179	161	172	143
East Asia and Pacific	49	44	49	57
Europe and Central Asia	28	29	30	29
Latin America and the Caribbean	88	76	69	42
Middle East and North Africa	3	3	6	3
South Asia	3	3	4	5
Sub-Saharan Africa	8	6	14	7

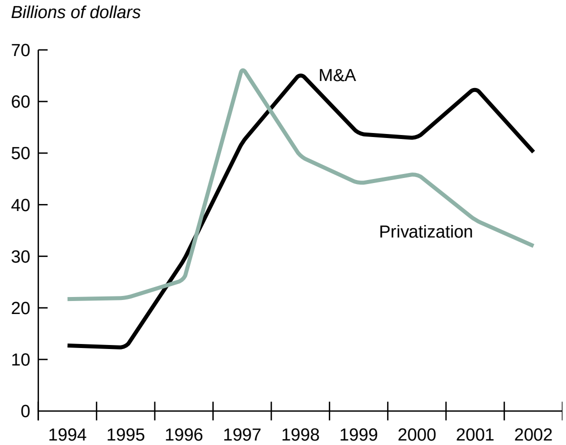
Source: World Bank, *Global Development Finance: Country Tables;* World Bank staff estimates for 2002.

Figure 4.2 Net FDI inflows to developing countries, 1994–2002



Source: World Bank, *Global Development Finance: Country Tables* and sources cited therein; World Bank, *World Development Indicators*; World Bank staff estimates for 2002.

Figure 4.3 Privatization and M&A in developing countries, 1994–2002

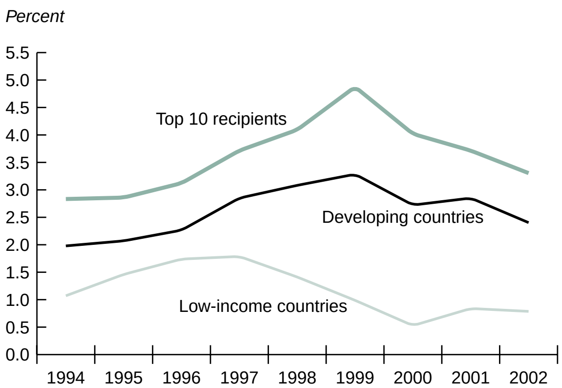


Sources: World Bank, *Global Development Finance*, various years; UNCTAD, *World Investment Report 2002*; OECD, *Financial Market Trends 2002*; EBRD, *Transition Report*, various years; World Bank staff estimates for 2002.

Despite the overall decline in FDI flows to developing countries and another rise in the share of FDI accounted for by China, there was a decline in the overall concentration of FDI. The share of the top 10 recipient countries remains high at 70 percent, but it has declined from about 79 percent in 2000. FDI as a share of GDP in the top 10 recipient countries remains much higher than the average for developing countries—although it has declined since 1999 (figure 4.4). India has joined the top 10 recipients of FDI. Other gainers (compared to 2000) are China, whose share rose to 37 percent of the total in 2002, the Czech Republic, the Russian Federation, and the Slovak Republic. The countries that lost FDI share during this period are Argentina, Brazil, Malaysia, Thailand, and Turkey.

Low-income countries received $7 billion in FDI in 2002, compared to $10 billion the year before. Among the low-income countries, FDI in the 47 least developed countries (as defined by the United Nations) rose slightly to an estimated $4 billion in 2002—due largely to strong performance by Angola.

Figure 4.4 FDI as a share of GDP in developing countries, 1994–2002



Note: The top 10 recipients of FDI based on the volume of accumulated FDI flows over the period 1992–2001 are (in descending order) China, Brazil, Mexico, Argentina, Poland, Chile, Malaysia, Thailand, the Czech Republic, and the República Bolivariana de Venezuela.
Source: World Bank, *Global Development Finance*: *Country Tables* and sources cited therein, various years; World Bank, *World Development Indicators*, various years; World Bank staff estimates for 2002.

Regional trends in FDI

The dip in FDI flows in 2002 was almost entirely due to the decline in flows to Latin America and the Caribbean (see table 4.1). Three factors accounted for that decline:

- *The regional recession* undermined incentives to invest in the region generally and in Argentina specifically.
- *No large M&A transactions* of the kind that inflated the inflow numbers in recent years occurred in 2002. For example, Mexico's total in 2001 reflected Citibank's acquisition of Banamex, an extraordinarily large transaction. The country's 2002 FDI total was $13.6 billion, about the same as the recent annual average if the Banamex transaction is excluded.
- *The process of privatization is winding down*. Latin American governments have been aggressive sellers of state-owned assets for almost a decade, and many of these assets have been sold to foreign buyers. As the privatization process has moved towards completion, FDI flows related to privatization naturally have declined. For example, FDI flows to Brazil—still the main FDI destination in the region and the second largest in the developing world—fell to an estimated $17 billion, significantly below the more than $30 billion annual average seen in 1999–2000.

The rise in flows to East Asia and Pacific was more than accounted for by another rise in FDI in China, which offset the marginal decline in other countries. China accounted for 92 percent of FDI to the region and for 37 percent of the developing world's total in 2002. Buoyant investment is being driven by the new round of market liberalization, strong optimism about the domestic economy, and the country's accession to the WTO.

FDI flows to Europe and Central Asia held reasonably steady at around $29 billion in 2002, compared to $30 billion in 2001. Flows were strong in the Czech Republic, but weaker to Hungary and Poland, where the tailing off in the privatization process slowed inflows. Flows to Turkey were meager, after being lifted in 2001 by inflows from the sale of mobile phone licenses and a state bank.

FDI flows to South Asia increased moderately in 2002 to an estimated $5 billion. The actual amount may well be higher, given that FDI is significantly understated in India, the largest recipient country in the region (box 4.1).

Adjusting for the sale of Morocco's Maroc-Telecom to Vivendi Universal for $2.2 billion last year, the Middle East and North Africa region experienced a sharp decline in FDI, dropping to about $3 billion from an unusually high level of $6 billion in 2001. The change was due in part to the uncertainty surrounding the region since September 11, 2001. FDI into Sub-Saharan Africa also dropped 49 percent to an estimated $7 billion from the previous year, when FDI inflows were swelled by the sale of South Africa's De Beers.

FDI shifts to services

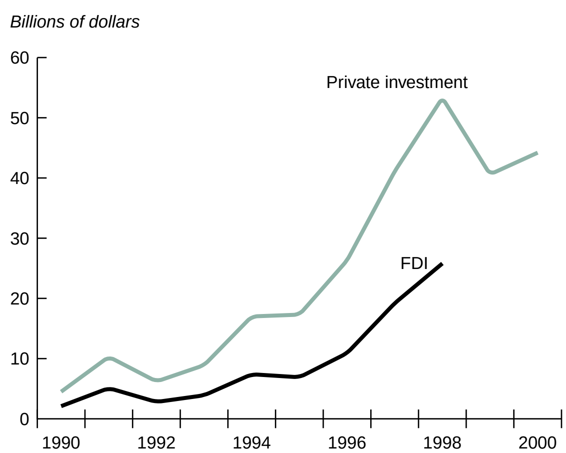
FDI flows to developing countries' services sectors increased rapidly in the late 1980s and early 1990s. Between 1988 and 1999, service-sector FDI increased at an annual rate of 28 percent and accounted for around 37 percent of total FDI stocks in developing countries in 1999 (World Bank 2002b, chapter 2). The share of infrastructure in total FDI flows nearly doubled during 1990–98. This increase was led by a surge in flows into the telecommunication sector (the increase was around $84 billion, or one-tenth of

Box 4.1 Understated FDI in developing countries

Inflows of FDI may be understated in many developing countries. India's definition of FDI excludes earnings reinvested by foreign investors; other direct investments between direct investors and subsidiaries, branches, and associates; and investments by offshore and domestic venture-capital funds set up by foreigners (Economist Intelligence Unit 2002). If these items are taken into account, India's actual annual level of FDI would rise significantly (from the $2–3 billion reported currently to as much as $8 billion—about 1.7 percent of India's GDP, according to International Finance Corporation 2002). India's government recently proposed to adopt the IMF's definition—as required under the IMF's Special Data Dissemination Standard. Similarly, Indonesia's FDI is also believed to be under-reported. Indonesian balance of payments data indicate that between 1998–2001, total disinvestments in the country reached over $10 billion. While this is consistent with the decline in reported outward investment in Indonesia by high-income OECD countries (which accounted for 70 percent of total investment in Indonesia before 1998), it is not consistent with the fact that their investments stayed at positive levels. One reason for this discrepancy may be that Indonesia does not include reinvested earnings as FDI inflows. Other developing countries that do not include reinvested earnings in FDI inflows are Nigeria, Thailand, and Tunisia (Direct Investment Methodology Survey, IMF 2001).

the change in aggregate FDI stock) as global telecom and utility companies took advantage of their rising stock prices and participated in privatization programs in many developing countries (figure 4.5).[2] Such investment flows peaked in 1998, however, in line with the asset price movements in the information, communication, and technology sector in global markets. Also, privatization efforts began to slow around this period in many developing countries.

Figure 4.5 Private and foreign direct investment into the telecom sector of developing countries, 1990–2000



Note: Investments in developing countries. FDI data is not available for recent years.
Sources: Sader 2000; World Bank, *Global Economic Prospects 2003*.

Despite the slump in the global telecommunications sector since 1998, developing countries have continued to receive FDI into this sector. The profile of investors is changing, however. A growing number of new (relatively small) regional firms are now competing with the global players. (The rise in South-South FDI during this period is discussed further below.) The mode of investments is changing, as well, from privatization to licensing and joint ventures.[3] These changes imply that the nominal amount of FDI in telecommunications may continue to remain low even though the number of transactions may increase.

This shift toward services is likely to have increased the benefits of FDI to developing countries. Many services sectors provide important inputs to production, particularly compared with the often limited linkages between extractive industries and the domestic economy. Of course, services comprise a wide variety of economic activities of varying impact on developing economies.[4] For example, the entry of foreign banks has helped improve the efficiency of developing countries' financial sectors, a critical input to growth. Foreign investment in fast-food establishments, on the other hand, is unlikely to generate comparable benefits. Nevertheless, the trend toward greater FDI in service sectors, coupled with extensive examples of FDI in banking and infrastructure, is a positive development that may be missed if only the aggregate trend in FDI is examined.

The extractive industries retain an important share of FDI in developing countries. Oil-exporting countries accounted for about 20 percent of all FDI in developing countries through most of the 1990s.[5] In Sub-Saharan Africa in the second half of the 1990s, FDI stocks in countries where most production occurs in the primary sector—and where FDI is often devoted to oil or mining—increased at about the same rate as in countries with limited primary-sector production.[6]

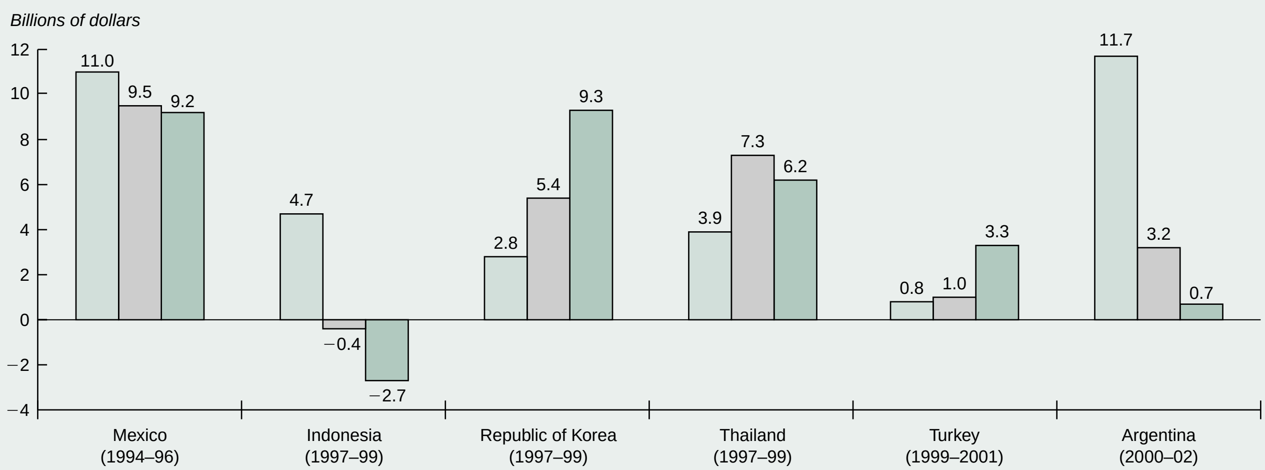
Despite FDI's overall shift to the service sectors, several of the countries hit by severe economic crises in the late 1990s and the early part of this decade have seen FDI shift out of the service sector and into tradable sectors, particularly manufacturing. Before a crisis, an overvalued exchange rate may encourage rapid growth in service-sector investments, including by foreigners, to serve a domestic market where purchasing power is high—which may partially explain the growth of FDI in the financial sectors of Argentina and Brazil in the late 1990s. But a crisis that cuts domestic incomes and leads to a massive exchange-rate devaluation is likely to shift investment to the export sector and, more broadly, to tradable production. FDI in Thailand's automobile sector increased rapidly after the 1997 crisis, and similar growth can be seen in Turkey over the past two years. The attractiveness of tradable production following devaluation is a major reason why FDI often remains resilient following a crisis (box 4.2).

Box 4.2 The resilience of FDI during a crisis

Foreign direct investment (FDI) tends to be more resilient than portfolio equity or debt flows during a financial crisis in the recipient country (World Bank 1999). This is in part due to the fact that direct investments are long-term strategic decisions that may not be affected by a financial crisis that is perceived to be short-lived.

On the contrary, a fall in asset prices, combined with currency devaluation, may attract more FDI—especially in the tradable sector. FDI flows held up well following crises in Mexico in 1995–96, Korea in 1998–99, Thailand in 1998–99, and Turkey in 2000–01. FDI sagged, however, after the crises in Argentina and Indonesia, both of which present deep-seated social and political risks that currency devaluation cannot address.

FDI and financial crises



Source: World Bank, *Global Development Finance: Country Tables* and sources cited therein; World Bank staff estimates for 2002.

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Box 4.3 Outward flows of FDI from developing countries tend to be underestimated

Under-reporting of outflows of FDI is pervasive, particularly where investors may be attempting to avoid controls on capital and foreign exchange or high taxes on investment income. Some countries—even major emerging markets like Malaysia and Mexico—do not identify FDI outflows in their balance-of-payments statistics. Lax accounting standards, weak tax administration, and differences in the definition of FDI between the source and destination countries introduce further noise in the FDI data.

Evidence of under-reporting can be seen by comparing FDI inflows reported by the United States with outflows to the United States reported by developing countries. Mexico's reported FDI outflows were under $1 billion in 2000 (UNCTAD 2002), whereas the United States reported inward FDI from Mexico of $5.3 billion. Hungary reported a total FDI outflow of $0.3 billion in 1999, while the United States alone reported receiving $5.9 billion from Hungary. Other examples abound. A large investment of $4.4 billion in Telecom Eireann MSA deal in 1999 was not reported by Iran. China's outward FDI numbers are much smaller than those reported as inflows from China in Hong Kong's official statistics. Similarly, according to Hong Kong's Economic and Trade Office, Hong Kong's investments in China surged to $46.4 billion in 2000—yet China's inward FDI numbers show a decline in inflows from Hong Kong.[a]

The inconsistency in data on inflows and outflows is further exacerbated by the activities of offshore financial centers. This is clearly evident from the U.S. data, where an attempt is made to distinguish between the residence of the firm making the investment (usually reported as the source country) and the residence of the owners of the firm, and hence the original source of the funds, referred to in U.S. reports as the "ultimate beneficiary owner." For example, in 2001 FDI to the United States from Switzerland was $56.3 billion. Using the ultimate beneficiary criterion, however, it was close to zero. The bulk of the funds reported as FDI from Switzerland actually originated in a third country. Even this correction, however, cannot completely identify the source of FDI flows in some cases. For example, using the ultimate beneficiary criterion, FDI from Bermuda and Hong Kong totaled $42 billion in 2001. However, it is unlikely that these financial centers were the original source of substantial amounts of foreign investment.

Financial centers may distort the global amount of FDI flows. For example, during 1999–2000, Belgium and Luxembourg reported huge surges in both inward and outward FDI . According to the OECD database, this surge was almost entirely in financial activities (most likely financial intermediation). But these transactions swelled global FDI flows by about $200 billion.

a. "Round-tripping" of flows between China and Hong Kong may have inflated China's inward FDI at the same time it lowered its outward FDI data (see also *Global Development Finance* 2002).

Direct investments in the United States and ultimate beneficiary owners, 2001
(billions of dollars)

	Actual	Ultimate beneficiary
Bermuda	−2.8	19.5
Hong Kong	0.0	22.4
Switzerland	56.3	−0.6

Source: U.S. Department of Commerce.

South-South FDI

With wealth increasing and capital controls lifted in the 1990s, many developing countries have emerged as significant sources of foreign investment, both in other developing countries and in the industrialized world. FDI flows originating from developing countries and going to other developing countries (referred to as South-South FDI) are estimated at $54 billion in 2000, about 36 percent of total FDI inflows to 31 developing countries (table 4.2 on page 91).[7] Outflows of FDI from developing countries are notoriously underreported, however, and can only be estimated indirectly (box 4.3).[8]

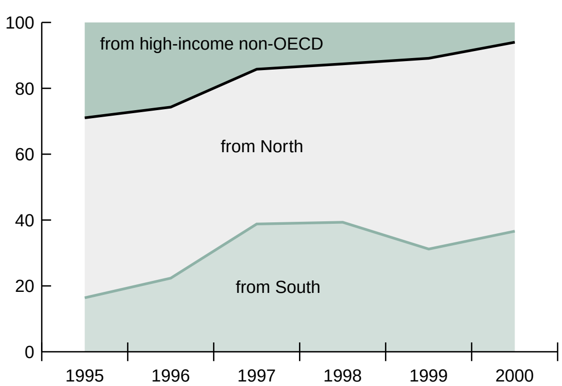
South-South FDI appears to have grown faster in the late 1990s than FDI from high-income to developing countries—so-called North-South FDI, with high-income countries now accounting for only about 58 percent of total FDI flows to developing countries (figure 4.6). The United States and Japan account for most of the drop in North-South FDI, investment from Europe having risen in the late 1990s (figure 4.7). The 1990s has seen the

Table 4.2 Estimates of South-South FDI flows, 1995–2000
(billions of dollars)

	1995	1996	1997	1998	1999	2000
FDI flows to developing countries:						
From all countries (1)	94.0	112.4	148.4	153.7	160.6	148.0
Less: From high-income OECD countries (2)	51.3	58.8	69.8	74.1	93.6	85.5
Less: From high-income non-OECD countries (3)	27.4	28.6	21.2	19.1	17.2	8.6
Equals: Implied South-South FDI (1 – 2 – 3)	15.3	25.0	57.4	60.4	49.7	53.9
As share of total FDI inflows to developing countries	*16.2*	*22.3*	*38.7*	*39.3*	*31.0*	*36.4*

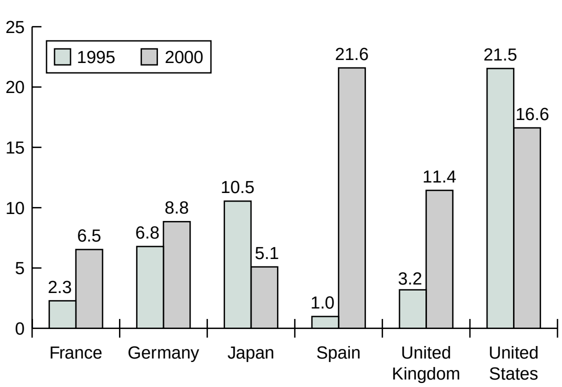
Source: Aykut and Ratha 2002.

Figure 4.6 FDI to developing countries, by source, 1995–2000



Source: Aykut and Ratha 2002.

Figure 4.7 Major North-South investors



Source: OECD, *Direct Investment Database 2002.*

emergence of several transnational corporations in developing countries—among them Mexico's Cemex (Cementos Mexicanos) and South African Breweries—that have played an important role in FDI outflows (box 4.4).

How sustainable is the current flow of FDI?

The impressive stability of FDI flows to developing countries in the face of weakness in global capital spending, global mergers and acquisitions, and private-sector debt flows to developing countries makes it tempting to assume that the recent level of net inflows can be safely extrapolated well into the future at their current range of about $140–$160 billion (or 2.7 percent of GDP). Would such an extrapolation be valid? Or is FDI apt to suffer a decline similar to that of portfolio equity flows?

Automatic stabilizers for FDI

There are two very important stabilizers to the flow of FDI funds. *First, the stock of existing FDI generates profits that are often retained in the business.* Although plowing profits back into the business does not produce a foreign-exchange flow, it avoids the net foreign-exchange *outflow* that would appear in the current account if the funds were remitted to the parent company. When profits are so retained, this represents an equal and offsetting inflow on the capital account to the outflow from the current account.

Unfortunately, many countries do not provide data on the share of retained profits in FDI (box 4.1).[9] Of the 59 countries that do provide a breakdown of retained earnings in net FDI inflows, retained earnings accounted for slightly less than 20 percent of total net inward FDI in the period 1996–2001 (figure 4.8). If this proportion were applied to developing countries as a whole, then the net inflow due to retained earnings would be on the order of $30 billion.

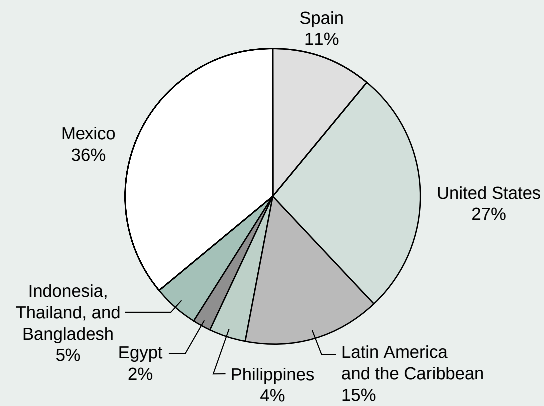
The region with the highest share of FDI in the form of retained earnings is Sub-Saharan Africa. The nine countries of the region for which data are available show an average share of 31 percent.[10] For China, the largest destination for FDI flows, reinvested earnings accounted for about one-third of net FDI inflows over the 1996–2000 period. For Mexico, the ratio was 21 percent. The countries

Box 4.4 Cemex and South-South FDI

Cementos Mexicanos (Cemex), one of the world's top 100 transnational corporations in terms of foreign assets, is the largest cement company in the Americas and one of the three largest (with Lafarge and Holcim) in the world. It rapidly expanded its global operations in the 1990s both in industrial and developing countries. Approximately two-thirds of its assets and more than 60 percent of its production capacity are in foreign lands, with 40 percent of foreign assets and half of foreign capacity being in developing countries.

The company has focused on acquiring companies in countries with large domestic markets at times when valuations are low. For example, Cemex acquired Vencemos, the largest cement company in República Bolivariana de Venezuela, in 1994, shortly after the currency suffered a 64-percent devaluation. Similarly, Cemex acquired PT Semen Grasik in Indonesia in 1998, soon after the rupiah's three-fold devaluation against the U.S. dollar. Interestingly, Cemex still enjoys a much higher rate of return in its domestic market than in its foreign investments, whether in the North or the South (see table).

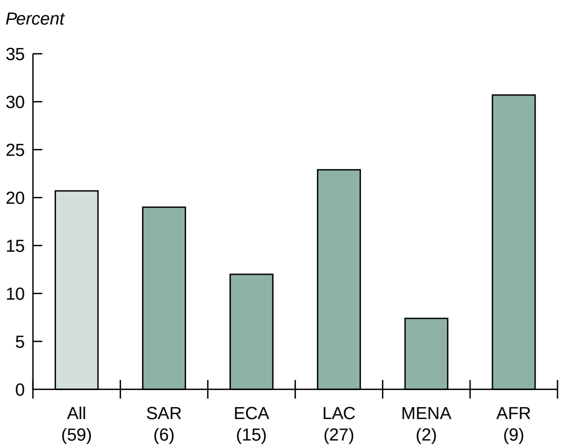
Cemex's assets by country as of 2001



	Percentage rate of return (Operational income/total assets)		
	1999	2000	2001
Mexico	21	24	17
North	15	7	8
South	6	13	7

Note: Excluding unidentified assets classified as "others."
Source: CEMEX Annual Report 2001.

Figure 4.8 Proportion of FDI funded by reinvested earnings, by region, 1996–2001



Note: The number of countries is indicated in parentheses. SAR = South Asia, ECA = Europe and Central Asia, LAC = Latin America and the Caribbean, MENA = Middle East and North Africa, AFR = Sub-Saharan Africa.
Source: IMF, *Balance of Payment Statistics 2001.*

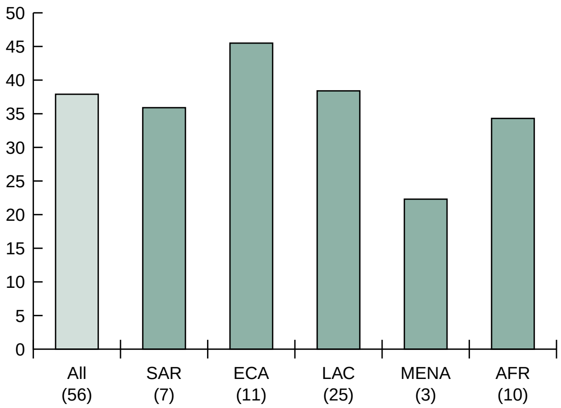
with the largest shares of FDI accounted for by retained earnings were: Dominica (65 percent), Swaziland (64 percent), Barbados (59 percent), the Dominican Republic and Namibia (46 percent), Papua New Guinea (45 percent), and Benin (40 percent).

It should not be supposed, of course, that profits earned on FDI in developing countries are automatically reinvested. Whether they are or not will depend on a host of factors, not the least of which is investors' eagerness to build their business in the host country.[11] The balance-of-payments presentations of 56 countries identify the income earned from FDI activities (in the current account) and the component of that income that is plowed back in as an FDI inflow to the capital account. From those presentations it is possible to infer an average propensity to reinvest of just below 40 percent over the period 1996–2001 (figure 4.9).

The countries with the highest average propensity to reinvest earnings are in Eastern Europe and

Figure 4.9 Proportion of FDI earnings reinvested, by region, 1996–2001

Reinvested earnings as a percentage of FDI earnings (balance-of-payments basis)



Note: The number of countries is indicated in parentheses. SAR = South Asia, ECA = Europe and Central Asia, LAC = Latin America and the Caribbean, MENA = Middle East and North Africa, AFR = Sub-Saharan Africa.
Source: IMF, *Balance of Payment Statistics 2001*.

Central Asia, where the regional average was 46 percent in 1996–2001. Reinvestment ratios exceeded 50 percent in Lithuania (72 percent), Latvia (69 percent), the Czech Republic (62 percent), the Kyrgyz Republic (61 percent), Croatia (57 percent), Moldova (56 percent), and Estonia (53 percent). Individually, however, the country with the highest reinvestment rate was China (81 percent over the period 1997–2000), which helps to account for the large scale of China's overall net FDI inflows.

The second key stabilizer to FDI flows is depreciation of fixed capital. FDI data reflect gross investment flows. But as soon as a multinational company buys or builds capital equipment or structures in a developing country, those assets begin to depreciate. To maintain the capital stock intact, the investor must add new investment—often through retained earnings. In extractive and manufacturing industries, the need for new investment to offset depreciation is obvious. But in services, too, there is a constant need to upgrade equipment, especially in view of the shortening of the useful life of information technology capital assets.

Estimations of the portion of net inward FDI devoted to maintaining existing capital stock are somewhat arbitrary. UNCTAD (2002) estimates that the stock of inward FDI for the sample of countries covered by this publication was about $1.5 trillion. Our own estimates put that stock at closer to $1.2 trillion. (Both estimates are on a historic cost basis.) Taking the midpoint of the two estimates and assuming a conservative 5-percent rate of depreciation would imply an annual depreciation of about $68 billion. An annual inflow of FDI of $143 billion thus implies about a 6-percent increase in the net capital stock of FDI held in developing countries.

FDI as a stock adjustment process

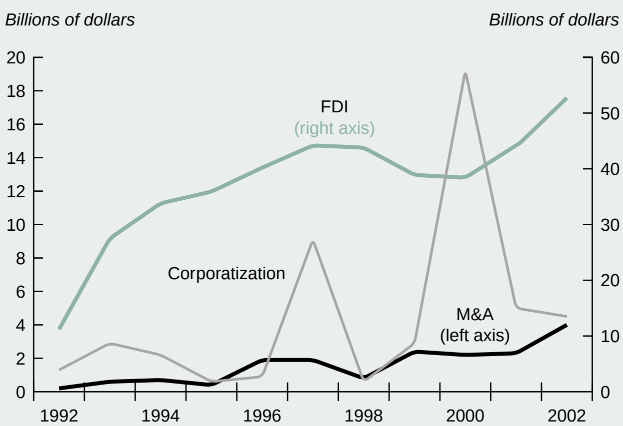
In assessing the sustainability of the current flow of FDI, it is helpful to bear in mind the implied stocks involved. One way of viewing FDI is as a global adjustment in capital stock—as companies come to recognize the benefits of producing in foreign locations and developing countries offer opportunities to expand and diversify production bases (see World Bank 2002b, chapter 2). Two of the three salient features of this stock adjustment process suggest a sustained flow of FDI; the third implies more caution:

- Foreign investors in developing countries still hold about $2 in debt for every $1 in equity claims (see chapter 1). This gap has been shrinking in recent years as debt claims fall and equity claims rise. While the relative shift from debt to equity could continue simply through the paying down of debt claims, it is most likely that it will also be effected through a rise in equity claims.
- The stock of fixed capital owned by foreigners in developing countries (about $1.2 trillion) is small compared to the overall capital stock of the OECD area and to the share of developing countries in the global capital stock. This would suggest that there is more room for producers and service providers to diversify the physical location of their capital stocks.
- The stock of government-owned assets to be privatized and sold to foreigners is now relatively small. Much of it was sold in the 1990s, which accounts for the recent tailing off in privatization-related FDI. There are important exceptions. In some countries, strategic industries remain under state ownership, such as energy in Mexico. Moreover, the privatization process has barely begun in China (box 4.5).

Box 4.5 Corporatization and FDI in China

Although privatization is slowing in Latin America and Eastern Europe, China still offers significant potential for FDI stemming from corporatization (the process of taking state-owned enterprises and turning them into shareholder-owned enterprises). Between 1997 and 2001, only about $46 billion was raised through corporatization, mergers, and acquisitions in China—compared to about $210 billion raised from new greenfield fixed investments by foreigners. As the process of corporatization accelerates in the years ahead, this is bound to attract more foreign investment.

FDI, M&A, and corporatization in China, 1992–2002



Note: China's corporatization revenues for 2000–02 are World Bank staff estimates based on various sources, including media reports, relevant government reports, and sources cited below.
Sources: World Bank, *Global Development Finance*, various years; UNCTAD, *World Investment Report 2002*; *Economist Intelligence Unit, Country Report*, various issues; Euromoney Bondware; World Bank staff estimates for 2002.

Risk perceptions and rates of return

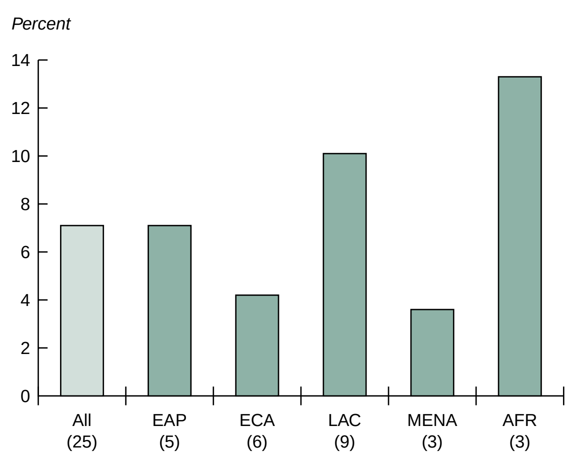
While the arguments presented above make a solid case that a reasonably high flow of FDI could be sustained into the future, two important considerations warrant caution.

Growing risk perceptions. A key factor in the surge in FDI in the 1990s was the combination of growing investor confidence in the political and regulatory environment in developing countries and the availability of insurance products that allowed investors to hedge against political risks. Events surrounding the Argentine devaluation and default may well lead some investors to raise the degree of risk they attach to foreign investment, especially in Latin America. While such fears may be overblown, policymakers in developing countries would be well advised to focus on creating and maintaining a stable, credible investment climate.

Low returns. An important threat to sustained flows of FDI is doubt over whether such investments can continue to be justified in view of the low returns realized in recent years (figure 4.10). As seen in the case of portfolio equity investments, poor returns have generated low flows. Undoubtedly, FDI investors have stronger stomachs—and fewer mark-to-market requirements—than portfolio investors. But they cannot be wholly indifferent to realized returns on FDI—and the evidence is not wholly encouraging.

Analyzing returns on FDI is hazardous, because the data are limited (Lehmann 2002).[12] But in 25 countries for which meaningful data are available, the average rate of return (in U.S. dollars) on FDI investment was 7.1 percent for the period 1993–2000. Admittedly crude, this estimate was computed by taking balance-of-payment data on FDI income earned and deflating the data using estimates of the stock of FDI. Distinctions can be made among the countries in the sample. Returns from the Arab Republic of Egypt, with an average of 1.3 percent, were very low. By contrast, returns from the Dominican Republic, with an average of 35 percent,

Figure 4.10 Average annual rates of return on inward FDI, by region, 1993–2000



Note: The number of countries is indicated in parentheses. EAP = East Asia and Pacific, ECA = Europe and Central Asia, LAC = Latin America and the Caribbean, MENA = Middle East and North Africa, AFR = Sub-Saharan Africa.
Source: IMF, *Balance of Payment Statistics 2001*.

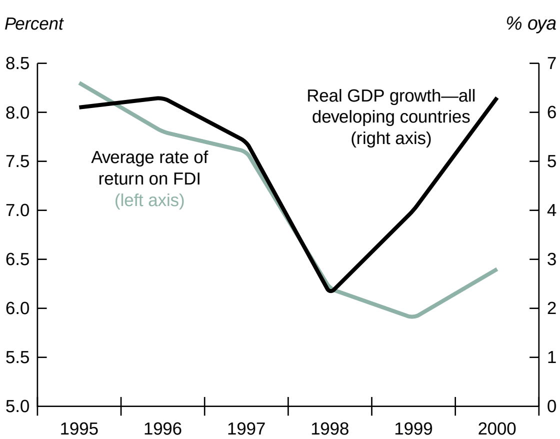
were extremely high.[13] By region, the highest returns were generated in Sub-Saharan Africa (where the oil sector dominates), and the lowest in the Middle East and North Africa. Countries attracting the largest inflows of FDI—Brazil, China, and Mexico—posted returns that were remarkably close to the average.

At face value, these returns do not look too bad. Although they are not much higher than G-7 bond yields for the same period, investors may well have been happy to receive an average short-run return of 7 percent while waiting for a larger payoff on an investment that most see as having a longer-than-average life. This sanguine interpretation needs to be conditioned by two very important caveats, however:

- *The trend in these measured returns is not favorable*. For most countries in the sample, the trend in rates of return on FDI has been down through the 1990s (figure 4.11). On average, the decline was interrupted in 2000, when the global economy rebounded; the profit fortunes of FDI investors are clearly linked to those of the corporate sector in the economy overall and, ultimately, to overall GDP growth. It is thus highly likely that the data for 2001 and 2002—weak years for developing-country growth—will be disappointing. Broader corporate-sector performance, which is crucial to the evolution of both domestic and foreign investment, is discussed in more detail in chapter 5.
- *These returns measure income flows only and do not reflect capital losses (or gains)*. If, for example, a U.S. auto manufacturer invests in a developing country that then suffers a steep currency devaluation and deep recession, the resulting losses would not be reflected in macro-level reports (provided by the IMF) or company-level reports (provided by the U.S. Department of Commerce). Similarly, foreign companies' losses in the past 18 months in Latin America extend far beyond the income statement. Foreign owners of banks in Argentina have seen the value of their investments evaporate. In such extreme circumstances, an explicit write-down of the book value of their assets on the balance sheet is required. Even if this is not done, the stock market will take these capital losses on board when attaching a value to an FDI investing firm.

FDI has been the major source of private-sector equity-related capital in developing countries even during the recent global economic downturn. However, with privatization winding down, the growing risk perceptions attached to these investments, together with their already not very encouraging returns, might adversely affect the stability of flows in the medium term. The same factors would also hamper portfolio equity flows to developing countries, which are already fairly small and quite volatile.

Figure 4.11 Rate of return on FDI and GDP growth, 1995–2000



Sources: World Bank, *World Development Indicators, 2002*; IMF, *Balance of Payment Statistics 2001*.

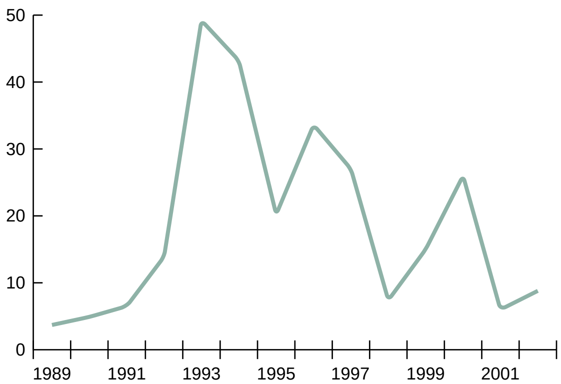
Portfolio equity flows in 2002

Portfolio equity flows to emerging markets are estimated to have increased to around $9 billion in 2002, up from $6 billion in 2001.[14] This rise is best seen as a blip up on a series that has shown a significant decline since peaking in 1993 (figure 4.12; box 4.6 on page 97).

Portfolio investments by region

In 2002, East Asia and Pacific accounted for $5.4 billion, or almost 60 percent, of the total portfolio-equity flows to developing countries, up sharply from $2.9 billion in 2001 (table 4.3). Flows to Latin America slumped to $1 billion from $2.3 billion the year before, due to an outflow of funds from Argentina and foreigners' sales of Brazilian equities

Figure 4.12 Portfolio equity investment in emerging markets, 1989–2002



Sources: World Bank, *World Development Indicators, 2002*; IMF, *Balance of Payment Statistics 2001*.

Table 4.3 Net portfolio equity flows to developing countries, 1999–2002
(billions of dollars)

	1999	2000	2001	2002
Total	15.0	26.0	6.0	9.4
East Asia and Pacific	4.6	19.3	2.9	5.4
China	3.8	21.4	3.0	4.0
Europe and Central Asia	2.0	1.2	0.3	1.4
Latin America and the Caribbean	−3.6	−0.4	2.3	1.0
South Asia	2.4	1.7	1.6	0.8
Sub-Saharan Africa	8.9	4.0	−1.0	0.7

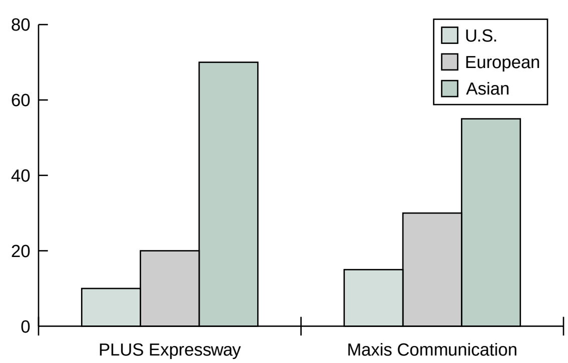
Sources: World Bank data based on information from IMF, *Balance of Payment Statistics;* national sources; market sources.

in the secondary market. Increases in investments in the Russian Federation helped boost flows to Europe and Central Asia to $1.4 billion in 2002, up from just $0.3 billion in 2001. A turnaround in South Africa—from net outflows in 2001 to net inflows in 2002—helped bolster Sub-Saharan Africa's share.

Several trends stand out:

- *China dominates*, accounting for more than 40 percent of all developing-country inflows of portfolio equity in 2002 and almost 75 percent of the East Asia region's. China's dominance reflects the concentrated nature of portfolio equity flows (box 4.7 on page 98). This dominance is unlikely to change anytime soon. Until December 2002, most of the Chinese stock market was closed off to foreign investors.[15] Now, however, it is opening. And privatization has yet to occur on a large scale in China (box 4.5).
- *In Asia, portfolio investments included some telecom-related flows*. The Indonesian government—rated B3 by Moody's, the lowest in East Asia—sold some of its stakes in mobile telecommunication companies to foreigners. In October China raised $1.5 billion from the sale of another tranche of China Telecom, although the amount of stock sold and its price were both below initial plans. The collapse in funding for the global telecommunications sector was a key feature of global financial trends in 2001–02. Raising fresh capital in this sector has been impossible for most issuers. That it is being done in parts of developing Asia testifies to the region's ability to insulate itself from some of the negative financial-market trends that have affected the global economy in the past year.
- *Asia and the Russian Federation continue to heal from their crises*. In 1997–98, a substantial amount of portfolio investment (both equity and debt) was withdrawn from Malaysia, and many thought that the subsequent imposition of exchange controls would cut the country off from fresh inflows. Malaysian issuers, however, accounted for about 12 percent of all portfolio-equity inflows to developing countries in 2002, with investors coming from the United States, Europe, and Asia (figure 4.13). In 1998, the Russian Federation

Figure 4.13 Investment profile for equity placement in Malaysia



Source: World Bank staff estimates based on information from Dealogic Bondware.

Box 4.6 Revision of the World Bank's data series on portfolio equity investment

The World Bank's data series on portfolio equity investment has been revised historically to include emerging markets that have begun to track and report flows of portfolio equity. The revised series represents the best possible picture of such investments, the measurement of which remains unstandardized across countries and institutions.

What has changed?

The revised series combines balance-of-payments data reported to the IMF, information compiled by the World Bank from official and market sources (supplemented by estimates based on stock market performances), and information reported by the IIF. The previous series (generated since 1993) was based on aggregation of gross international equity placements, investments by country funds, and estimates of foreigners' direct purchases in emerging economies' stock markets.

Why the need for revision?

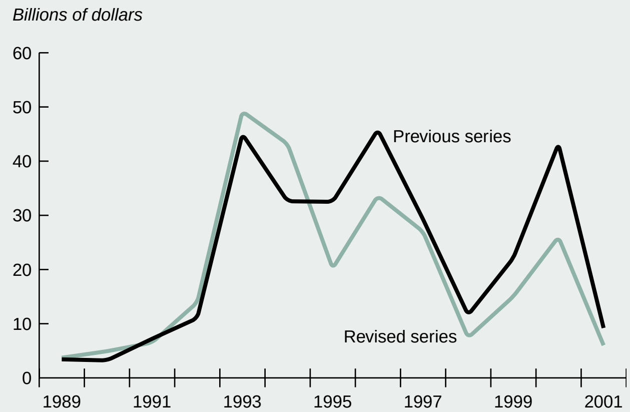
The old series was dominated by gross international market issues—a good measure of foreigners' initial purchases of equities. Because portfolio equity flows to emerging markets were just beginning to gain momentum at the time, the difference between gross and net was assumed to be minimal—an assumption reinforced by restrictions on capital repatriation in many countries. But foreigners did sell those equities, especially in times of financial-market stress. The new series captures *net* inflows of portfolio equity, since both the IMF and IIF report gross inflows minus outflows.

The old series contributed to the understanding of financial crises. Unlike foreign direct investment, which had been historically tracked by host countries and reported by the IMF and the OECD, there existed at the time the series was created no single source of data on portfolio equity flows. A handful of organizations reported portfolio equity flows data sporadically and with big differences in definitions, country coverage, and degree of detail. Only after the Mexican crisis of 1994–95 did a few countries begin to track such investments. The number of reporting countries has increased slowly over time, with several countries extending their series going back in time to the early 1990s.

Why the combination of various sources?

Limitations in the availability, timeliness, and reliability of data make it necessary to combine several sources.

Comparison of old and revised series, 1989–2001



Many countries, including some major ones—China, Indonesia, Malaysia, the Philippines—reported no data until the mid-1990s; Malaysia still reports zero portfolio equity flow in its balance-of-payments series. Data in the balance-of-payments statistics of other countries has not always been consistent with other information, such as data on gross issuance data in international markets.

How does the new series compare?

The previous and revised World Bank series show similar trends in portfolio equity flows to emerging markets (see figure). The old series, however, consistently reported higher volumes, mainly because international equity placements entered the old series on a gross basis. The difference between the series is clearest in the figures for East Asia.

Major divergence from other sources

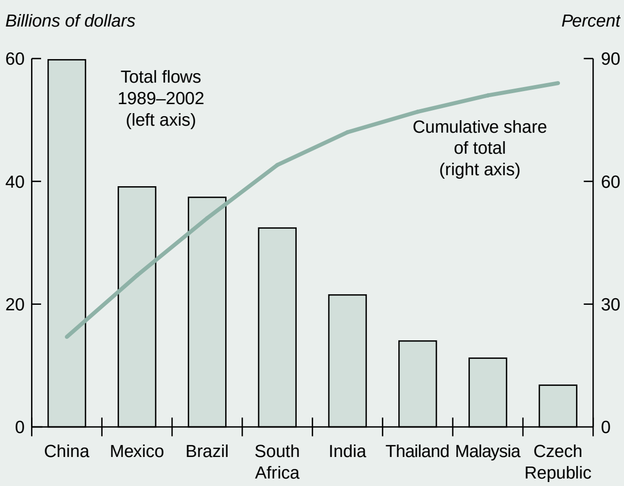
Both the new and old World Bank series diverge significantly from the IMF's balance-of-payments series in the case of two countries: China and Malaysia. For China, the new World Bank series captures the many equity placements that are attributed by market sources to China but do not appear to be captured by Chinese reporting. For Malaysia, the fact that portfolio equity flows are not reported in the country's balance-of-payments data creates the obvious difference.

Box 4.7 Concentration of portfolio equity flows

Portfolio equity investments, like FDI, tend to be concentrated in a handful of countries. Over the past 13 years, for example, the top eight recipient countries have accounted for 84 percent of total net flows of portfolio equity investment (see figure below). As with FDI, the largest net recipient has been China, which has attracted 22 percent of the total since 1989.

Portfolio equity investments may be concentrated in another way as well. In 2002, a small number of new international equity placements accounted for a significant portion of the overall flow. Of 115 emerging-market deals in the international equity market in 2002, 14 (about 15 percent) accounted for 75 percent of the total raised via international placements (see table below).

Concentration of portfolio equity flows, 1989–2002



Major international equity placements, 2002

	Millions of Dollars	Sector
Brazil		
Companhia Vale d o Rio Doce	961	Extractive
China		
BOC Hong Kong Ltd	2,204	Banking & Finance
China Telecom Corp Ltd	1,523	Telecom
Indonesia		
PT Telekomunikasi Indonesia	125	Telecom
PT Indonesian Satellite Corp	108	Telecom
Malaysia		
PLUS Expressways Bhd	423	Transport
Maxis Communications Bhd	401	Telecom
Mexico		
Grupo Financiero BBVA	783	Banking & Finance
Russian Federation		
Wimm-Bill-Dann O JSC	238	Agribusiness
NK Yukos OAO	147	Extractive—Oil & Gas
OAO Sibneft	127	Extractive—Oil & Gas
South Africa		
African Rainbow Minerals	149	Extractive
Harmony Gold Mining Co Ltd	111	Extractive
Old Mutual plc	350	Banking & Finance
Percentage of total emerging market placements	*76*	

Source: Dealogic Bondware.

was the epicenter of the market meltdown. The government's domestic debt default, combined with widespread concern about corporate governance, made it hard to conceive of selling equity securities to foreigners. In 2002, however, Russian issuers raised $1.3 billion.

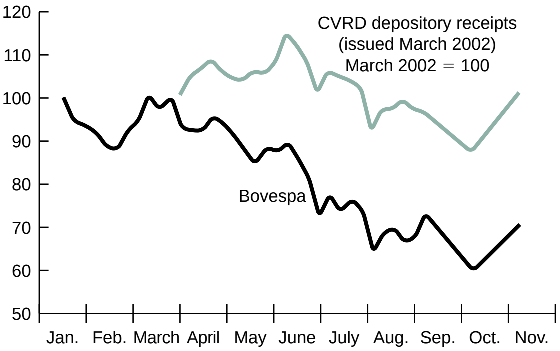
- *Flows into the mining and extractive sectors were strong*. Globally, issues were concentrated in the primary sectors. Most Russian issues, for example, were in oil and gas. And flows to South Africa were concentrated in the gold-mining sector, where the combination of a depreciated exchange rate and rising gold price appealed to investors. The Brazilian government sold its 35-percent ownership in the mining giant Companhia Vale do Rio Doce (CVRD) via placement of depository receipts. That privatization transaction was oversubscribed five times, even though Argentina had announced shortly before the formal launch that it would default on its debt. Moreover, the performance of the stock subsequent to the sale was strong relative to the local stock market in Brazil, underlining the strength of the sector overall (figures 4.14 and 4.17).

Emerging stock market performance in 2002

Emerging stock markets followed the pattern of the mature markets in 2002—a strong first half, weak third quarter, and some recovery at the end of the year (figure 4.15). Through 2002, however, returns in emerging markets have continued to be higher than in the mature markets, both in absolute terms and adjusted for volatility. By region,

Figure 4.14 Brazilian stock market (Bovespa) versus CVRD, January–November 2002

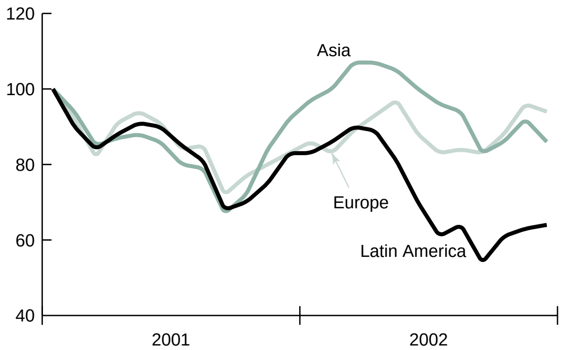
Index, Jan. 2002 = 100



Source: Bloomberg.

Figure 4.16 Emerging stock market performance by region

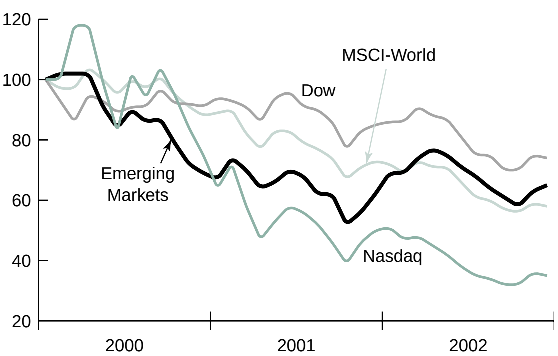
S&P/IFCI index, Jan. 2001 = 100 (dollar terms)



Sources: Standard & Poor's; International Finance Corporation.

Figure 4.15 Performance of equity markets

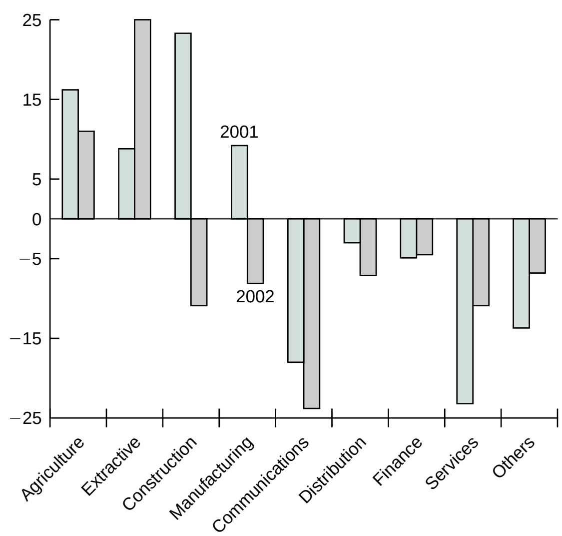
Index: Jan. 2000 = 100



Sources: Bloomberg; Standard & Poor's; International Finance Corporation.

Figure 4.17 Returns in emerging stock market by sector, 2001 and 2002

Percent



Note: Data for agriculture are from 2001. Other data are from 2002.
Sources: Bloomberg; Standard & Poor's; International Finance Corporation.

the weakest markets were in Latin America, where Argentina was down 60 percent and Brazil 38 percent in dollar terms (figure 4.16). Europe and Central Asia ended the year with an overall increase of 10 percent, again in dollar terms. However, volatility in Asian markets was more extreme, with strong gains through mid-year dissipating in the second half. The region finished with a loss of 7 percent (in dollar terms) for the year.

As in the mature markets, the mediocre results in emerging markets can be attributed to the poor performance of the technology and telecommunications sectors (figure 4.17), which together account for about one-third of stocks traded on emerging markets (the majority being from East Asia). Technology stocks were down by about 15 percent, while communication stocks lost about 25 percent of their value over the year.

The sectors that performed best were agribusiness and extractive industries. Although their average appreciation was about 20 percent in 2002, their contribution to overall performance was limited, as they account for only 14 percent of the overall S&P/IFCI index.

Why are portfolio equity flows so modest?

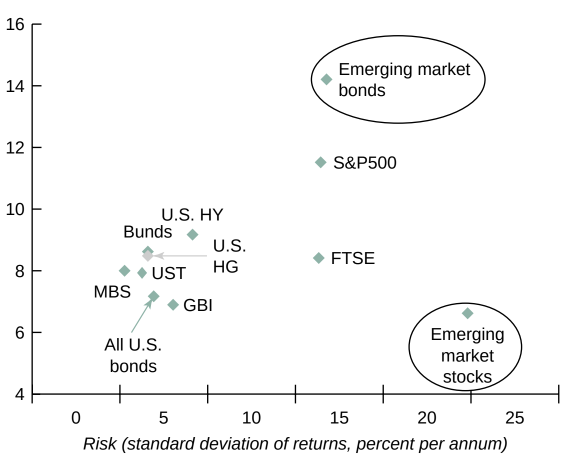
The early 1990s were the boom phase for portfolio-equity inflows to developing countries. In 1990–94, such flows averaged about $24 billion, nearly half the $52 billion annual average of FDI inflows. With the industrial countries languishing at the time, developing countries were seen by many investors as a source of future growth. Money poured into country funds and individual markets, producing spectacular gains in equity prices. Between December 1990 and December 1993, emerging-market stocks returned an annual average of 34 percent.[16] Between 1997 and 2001, however, portfolio-equity inflows dropped to $16 billion, less than one-tenth of the annual average FDI for the same period. Between December 1993 and October 2002 emerging-market equities returned –4.4 percent annually.

Why was there such a difference in the levels and trends of the two types of equity flows? If portfolio investors have found the purchase of equity in developing countries so unappealing in recent years, why do FDI investors find it so desirable? Three factors probably help account for the differences.

First, investors' perspectives differ. Portfolio flows to developing countries have been weak because the high prices of developing-country stocks in the early 1990s, coupled with subsequent devaluations and sagging growth, have made them a poor investment, on a risk-return basis, over the past decade (figure 4.18). Most FDI investors, too, have seen their returns fall in recent years and have been buffeted by economic crises, but they have persisted in their investments—in part because of their perspective on holding-period returns. FDI investors, who seek to maximize returns over the long run, are not forced continuously to justify their investments. In particular, they do not have to record large capital losses during periods of crisis. By contrast, portfolio investors are mark-to-market investors for whom low short-run returns and high volatility may trigger immediate withdrawals, especially in the case of mutual funds.

Figure 4.18 Risk and return by asset class

Return (percent per annum), monthly data December 1990–August 2002



Source: J.P. Morgan, Chase, and Bloomberg.

Second, investors in developing countries seek control as well as ownership. One reason why FDI investors may fare better in developing countries is that by exercising control they are able to steer the enterprise in a desired direction. By contrast, portfolio investors are, by definition, minority shareholders and may fear that they will find their interests subordinated to those of local owners—a fear that may deter investment even if ill-founded.

A wide and growing literature supports the thesis that stock-market development depends on a good legal system, one that allows for enforcement of the rights of minority shareholders (Demirguc-Kunt and Levine 2001). Weakness in domestic legal structures can be partially overcome if companies list themselves on major exchanges (Claessens, Klingebiel, and Schmukler 2002). By doing so, they may also benefit from cheaper funding than they could find if they remained listed on local markets. For several reasons, however, this solution is not very satisfactory. Migration to a major exchange does not prevent companies from abusing the rights of minority shareholders, but it does reduce liquidity in the local market for the companies that remain, diminishing the effectiveness of this potentially very important vehicle for the promotion of growth of local firms (Levine and Schmukler 2001).

Third, FDI may be rising relative to portfolio equity because it is straightforwardly substituting for it. The companies that FDI investors buy may well be those that portfolio investors hold. Banamex stock was widely held by international investors at the time the Mexican company was bought by Citigroup in 2001. The acquisition thus would have generated a large inflow of FDI but some offset in the form of lower portfolio investment. This effect was even clearer when Spain's Repsol bought Argentina's YPF. Up until the sale,

Box 4.8 FDI can reduce portfolio equity flows: Repsol-YPF

If an investor buys a company in another country by partly acquiring the stock from foreign investors in portfolio equity, the transaction will show up as a portfolio equity outflow that is generally more than offset by a net inflow of FDI.

A good illustration of this phenomenon is provided by the two-stage acquisition of the Argentine oil company, YPF, by the Spanish oil company, Repsol, in 1999. Repsol went into the acquisition already owning 2 percent of YPF's stock. In the first quarter of 1999, it paid the Argentine government $2 billion for the 15 percent of YPF stock that it still held. At this point, YPF's minority foreign portfolio holding, worth $270 million, became an FDI holding. In the second quarter of the year, Repsol bought the remaining 83 percent of the shares, 67 percent of which were owned by foreign portfolio investors. Repsol paid $13.2 billion for the 83 percent stake, of which $10.6 billion was thus a repatriation to foreigners of their portfolio equity investment in Argentina. Added to the conversion of Repsol's own previous portfolio stake, the total outflow of portfolio equity investment related to the YPF sale was $10.9 billion, which partly offset the net FDI inflow of $15.5 billion. The impact of the transaction on Argentina's balance of payments was a net inflow of $4.6 billion.

When adjustment is made for the YPF transaction, Argentina's balance-of-payments figures become much smoother (see table below). FDI shows a steady upward trend through 2000, while underlying portfolio equity investment was close to flat in 1998–99, before turning negative in 2000.

FDI and portfolio equity flows in Argentina, 1998–2000
(billions of dollars)

	1998	1999	2000
FDI recorded	7.3	24.0	11.7
ex-YPF	—	8.5	—
Portfolio equity recorded	−0.2	−10.8	−3.2
ex-YPF	—	0.1	—
Net BoP inflow from YPF	—	4.6	—

Source: IMF, *Balance of Payments Statistics*, 2001; World Bank staff estimates.

YPF had been the main Argentine stock held by foreign portfolio investors (box 4.8).

Forecasts for equity flows in 2003–2005

Portfolio equity flows are projected to show steady gains in 2003–05. New international issuance is projected to rise slightly, and there should be a resumption of net inflows into the secondary market. One uncertainty is how much money might flow to China now that the A-share market is now partly open to foreigners. This is by far the largest component of the Chinese stock market, with a market capitalization of about $300 billion—about three times the size of the markets in mainland equity securities previously open to foreigners.

FDI is expected to continue as the dominant form of capital flow to developing countries over the next three years. After the decline of the last two years, FDI flows are expected to stabilize in 2003 at around $145 billion (or 2.6 percent of GDP), before rising in 2004 and 2005 (table 4.4). Although by 2005 FDI inflows in nominal dollar terms are expected to rise in almost all regions, they are expected to rise faster than GDP only in East Asia and the Pacific (especially China) and in Europe and Central Asia. They are unlikely to keep pace with GDP growth in Latin America and the Caribbean and Sub-Saharan Africa. In Latin America and the Caribbean, FDI flows are expected to decline further in 2003 before recovering in 2004–05.

This outlook is based on an econometric model in which FDI flows to developing countries rise as the prospective rates of return of such investments rise, and as risks decline (see the annex

Table 4.4 Net inward FDI forecasts
(billions of dollars)

	2002	2003	2004	2005
Total	143	145	159	175
East Asia and Pacific	57	61	69	76
Europe and Central Asia	29	30	32	34
Latin America and the Caribbean	42	38	39	42
Middle East and North Africa	3	3	4	4
South Asia	5	6	7	9
Sub-Saharan Africa	7	7	8	9

Box 4.9 Surveys of FDI

The outlook for FDI in developing countries presented in this chapter is consistent with survey evidence. The World Bank's Multilateral Investment Guarantee Agency published a survey of FDI in January 2002. Each year in September A.T. Kearney publishes its "FDI Confidence Index." Both surveys confirm that the two main drivers of FDI in developing countries are the investment climate and relative returns on investment. A third factor that FDI investors considered important was free-trade arrangements—either WTO accession (China) or regional trade arrangements such as the Free Trade Area of the Americas (Brazil). The forward-looking survey by A.T. Kearney (based on interviews with 1,000 company executives worldwide) reported that investors were planning to maintain steady levels of foreign investment in 2003, even though overall they were revising their investment plans downward. This survey reported that China had overtaken the United States as the preferred destination for FDI (see table). The next emerging market in Kearney's ranking was Mexico (in ninth place). Overall the relative ranking of developing countries has generally worsened over the past year, with the exception of Eastern Europe. Three developing countries have dropped out of the top 25: Argentina, Malaysia, and Turkey.

FDI confidence index
(country rankings)

	September 2002	September 2001
China	1	2
Mexico	9	5
Poland	11	11
Brazil	13	3
Czech Republic	14	16
India	15	7
Hungary	16	21
Russian Federation	17	—
Thailand	20	14

—Not available.
Source: A.T. Kearney 2002.

to this chapter). Recent surveys of foreign direct investors suggest similar conclusions (box 4.9).

The most important factors behind the expected recovery in FDI during 2003–05 are an increase in expected rates of return in developing countries *relative to those in developed economies* and a decrease in the volatility of energy prices. Developing economies are expected to grow faster in 2003–05 than in recent years, and also faster than the G-7 economies. Developing-country exports of goods and services are also expected to rise in the medium term, attracting export-oriented FDI.[17]

East Asia and the Pacific overtook Latin America and the Caribbean as the most attractive developing region for FDI in 2002, a trend that is expected to continue in 2003–05. The regional surge is almost entirely caused by China, which is set to continue to be the largest FDI recipient in the developing world over the medium term, according to a September 2002 survey by A.T. Kearney.[18] Its relatively stable political environment, robust economic growth, successful bid for the 2008 Olympics, and recent accession to the WTO are the main drivers behind China's surge. WTO accession will facilitate entry of foreign investors to hitherto forbidden sectors, particularly the nontradable sector, and the consequent increase in FDI is expected to outstrip any decline in FDI that may result from the elimination or reduction of special incentives offered to foreign investors in export-processing zones. China has begun to reduce or abolish preferential treatment for foreign investors (in the form of preferential access to foreign exchange, lower tax rates, cheaper land leases, and other breaks). This is expected to reduce so-called round-tripping of FDI (World Bank 2002a) and, together with the recent decision to allow foreigners to buy Chinese stocks, to raise portfolio equity flows to China. Some of the new flows may come through mergers and acquisitions.

Political and security problems may prevent other developing countries in East Asia—Malaysia, Thailand, the Philippines, Indonesia—from seeing much increase in FDI, according to the September 2002 A.T. Kearney survey, although the picture should vary by sector. The majority of surveyed investors in light manufacturing and the telecommunications and utilities sectors believe that China will not crowd out FDI to other countries; on the contrary, FDI may flow to countries in the region that produce exports for China's domestic markets—now more open after China's WTO entry.

FDI is also expected to increase in Europe and Central Asia in 2003–05. Although most countries in the region, except the Russian Federation, have completed most of their privatization program, the prospect of entry into the European Union is providing an alternative boost to several countries. The Russian Federation is fast reemerging as an attractive destination for foreign investment—A.T. Kearney (2002) lauded it for the year's biggest improvement in investment outlook, citing positive economic prospects and progress in government reforms.

Sluggish growth and a slowdown in economic and political reforms are expected to continue to hold back FDI flows to Latin America. All countries in the region suffered large drops in FDI in 2002, and recovery to precrisis levels is unlikely in the medium term. The region's future, according to investors surveyed by A.T. Kearney, will depend on political and economic reforms as well as the evolution of the Free Trade Area of the Americas.[19]

Even after its recent economic problems, Brazil was the second-largest recipient of FDI among developing countries in 2002. However, the country is not expected to experience any significant revival in FDI inflows in 2003. Foreign investment flows to Mexico should improve modestly, driven by the projected economic recovery in the United States, relatively strong growth of Mexican GDP and exports, and the continued switch from debt to equity. In the rest of the region, Colombia, Peru, and the República Bolivariana de Venezuela are expected to attract modest levels of foreign investment in the primary sector.

FDI flows to South Asia are expected to rise in 2003–05. India is expected to lead this increase if economic reforms and the government's efforts to attract foreign investment continue over the next three years. India's attractiveness to investors in nonfinancial services (telecommunications and utilities) increased significantly following deregulation of the services sector and reductions in tax and tariff rates affecting the wholesale and retail sectors. On the negative side of the ledger, growing security concerns and their associated costs may well hamper investment flows to the region.

Security problems are a major issue in North Africa and the Middle East as well. In addition, the forecasted decline in the oil price may reduce oil-related foreign investment. Foreign investment in Africa is expected to remain unchanged from 2002. Opposition to privatization, high crime rates, and a heavily regulated labor market hinder the outlook for South Africa.

Several downside risks affect the outlook for FDI. First, international travel has become more difficult since September 11, 2001. Second, the recent accounting scandals in the United States have revived concerns about the lack of transparency in the corporate sector in developing countries. The latter consideration is likely to affect all types of capital flows to developing countries, especially those deriving from mergers and acquisitions.

Methodological annex: FDI forecasting model

THE FORECASTS OF FDI FLOWS PRESENTED IN this chapter are based on an econometric model that uses the following explanatory variables:

- The GDP growth rate of the top seven industrial countries (three-year moving average) is used to account for global economic conditions. As the G-7 countries are the major suppliers of FDI, any economic slowdown will adversely affect flows to developed and developing countries.
- The difference between the GDP growth rate of developing countries (three-year moving average) and that of the G-7 countries is a proxy for investors' expectations about excess rates of return in the medium term from investments in a developing country. This variable is especially important for foreign investment directed at supplying domestic markets.
- The growth rate of exports of goods and services (lagged one year) reflects a developing country's attractiveness to export-oriented, efficiency-seeking investors.
- The rating of *Institutional Investor* magazine is a proxy of the investment climate in a developing country—including macroeconomic policies, infrastructure, and institutions.
- An increase in the price of oil should stimulate oil-related foreign investment. It can simultaneously raise the demand for external financing in oil-importing countries and the supply of capital from oil-exporting countries.
- The volatility of oil prices (represented by their one-year rolling standard deviation) is used as a proxy for global economic uncertainty. Increased volatility of energy prices was cited as one of the top five concerns of multinational companies in recent A.T. Kearney surveys (A.T. Kearney 2001 and 2002).
- A lagged dependent variable (FDI/GDP) represents the persistence of FDI flows over time. One reason for such persistence is that FDI includes reinvested earnings and further investments to replenish existing stocks.

The model is similar to the one used in *GDF 2002*, with some important differences. The oil price and its volatility are two new explanatory variables. The growth rates of developing countries and the G-7 countries have been modified. And the investment climate is represented here by the *Institutional Investor* country rating instead of by the World Bank's country performance indicator (World Bank 2002a, p. 50). The model is estimated using panel data for 1991–2001 for 28 developing

Table 4A.1 FDI forecasting model, regression results

Explanatory variable	Coefficient
G7 growth rate, 3-year moving average	0.109*
Growth rate—G7 growth rate (3-year moving average)	0.018*
Growth of exports of goods and services	0.004**
Institutional Investor rating	0.023*
Oil price	0.005*
Volatility of oil price	−0.037*
FDI as percentage of GDP (lagged 1 year)	0.504*
Unweighted adjusted R^2	0.53
Weighted adjusted R^2	0.62
Durbin–Watson statistics	1.97
Number of observations	308

*Indicates significance (computed using White heteroskedasticity-consistent standard errors) at 1 percent level.
**Indicates significance (computed using White heteroskedasticity-consistent standard errors) at 5 percent level.
Note: Dependent variable is FDI as a percentage of GDP.

countries that accounted for more than 80 percent of FDI flows to developing countries in 2001. Regression results are summarized in table 4A.1 on page 104. Predictions of FDI/GDP for the 2003–05 period were obtained by forecasting growth rates of FDI as implied by the model and applying the obtained growth rates to estimated FDI figures for 2002.

Notes

1. Inflows of foreign direct investment (FDI) can be broken into three components: new fixed investments by foreigners (so-called green-field investment) and purchases of existing assets from the private sector (through merger or acquisition) or the public sector (privatization). Assuming the data in figures 4.1 and 4.2 are consistent, implied green-field investment in 2002 amounted to about $60 billion, or about 43 percent of the total.

2. See Sader (2000).

3. In Latin America, for example, WorldCom, AT&T, and France Telecom are now replaced by America Movil (Mexico) and Brasil Telecom. Similarly Vodacom of South Africa is expanding in Sub-Saharan Africa. In 2001, Turkey received more than $1.5 billion in FDI by selling licenses for mobile networks, and India received $1 billion in FDI related to acquisition of local telecom companies. In Brazil, Telecom Americas (Mexico) and Telecom Italia Mobile renewed their licenses in 2002, and Telecom Americas plans to acquire three more licenses to operate in 18 of the country's 26 states. Egyptian Orascom Telecom paid $0.7 billion to Algeria and $0.5 billion to Tunisia for mobile operator licensing. Morocco received $0.9 billion in the sale of mobile licensing to Medi Telecom. Vodacom of South Africa is already active in Nigeria, Cameroon, Rwanda, Uganda, and Swaziland; it is planning to expand in Lesotho, Mozambique, Tanzania, and Congo.

4. Data on the subsectoral distribution of FDI in services are rarely available for developing countries.

5. The share of oil-exporting countries in developing countries' FDI flows is only a proxy for the share of FDI going to extractive industries. It is possible that the sectoral composition of FDI to these countries has also changed over the 1990s.

6. According to UNCTAD (2002), about 55 percent of FDI flows to Africa (Sub-Saharan Africa and North Africa) went to primary sectors during 1995–2000.

7. See World Bank (2002a) and Aykut and Ratha (2002). The estimates are based on 31 developing countries that account for almost 90 percent of total FDI flows to developing countries.

8. Applying the same ratio to all 137 developing countries would imply total South-South FDI flows of almost $60 billion in 2000.

9. Some developing countries such Croatia, Ecuador, Hungary, and Malaysia compile but do not disseminate the data (Direct Investment Methodology Survey, IMF 2001).

10. These countries are Benin, Botswana, Côte d'Ivoire, Namibia, Senegal, Seychelles, Swaziland, Togo, and Uganda. Also note that it is not possible to say, a priori, whether a high or low ratio is better. A high ratio might reflect the fact that FDI is profitable and that investors have a willingness to reinvest profits. But it may also reflect the lack of access to capital from new sources.

11. In this case, it is reasonable to argue that the higher the ratio, the better.

12. There are two basic sources: (a) country data as reported to the IMF through balance-of-payments statistics, and (b) data on returns of U.S. firms as reported to the Department of Commerce (U.S. Department of Commerce 2002). The former are, in principle, more complete, although many analysts express skepticism about their quality. The latter are probably more accurate but relate only to U.S. FDI in developing countries, which was about 21 percent of the global FDI stock at the end of 2001. The data used in this section are mainly those from the IMF.

13. U.S. data corroborate this message on the Dominican Republic but give a completely different picture for the Arab Republic of Egypt (see Lehmann 2002).

14. This total comprises just net inflows of portfolio equity capital (that is, purchases of developing country equities, net of sales). It does not include net outflows (purchases of equities issued in high-income countries, net of sales, by residents in developing countries). Two important data revisions have been made to the portfolio equity inflow estimates for 2001 and previous years since *Global Development Finance 2002*. In that volume, 2001 portfolio equity inflows were estimated at $18.5 billion; in this volume they are just $6 billion. Why? First, the series was refined, which had the effect of reducing the 2001 estimate by $3.2 billion (see box 4.6). Second, the Republic of Korea is now excluded from our estimates, as it has graduated to high-income status. This had the effect of reducing the 2001 estimate by a further $9.3 billion.

15. Since December 2002, foreign investments in this market have been allowed via a Qualified Foreign Institutional Investor scheme. The scheme, however, imposes onerous conditions for the qualification of investors and limits the mobility of funds—it is likely to limit foreign participation, at least initially. The relaxation is another step in the direction of merging the A and B share markets.

16. These returns are calculated using the S&P/IFCI total return index for all emerging economies.

17. In preparing these forecasts, the investment climate variable (represented by IIR) is assumed to remain unchanged during 2002–05.

18. Based on preliminary numbers, China may outstrip the United States as the world's largest FDI recipient in 2002.

19. Brazil's ruling party (PT) organized a referendum in September 2002 opposing Brazil's participation in the Free Trade Area of the Americas. The PT officials have since changed their stance.

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