Since the financial crises triggered in 1997, developing countries' use of external private capital in relation to their economic activity has declined. This reflects a reduced demand for external capital in some countries and a constrained supply for other countries on account of uncertain market conditions. The outcome of these trends in flows is a generally improved external indebtedness position.

Following their collapse during the financial crises of 1997–99, private capital flows to developing countries resumed growth in 2000 in the wake of strong economic recovery beginning in 1999. But since, over the past three years, these capital flows failed to keep pace with global output and trade, they are a significantly smaller share of developing-country gross domestic product (GDP) and exports today than they were in 1996 and 1997. As a consequence, developing countries’ indebtedness ratios (debt/gross national product and debt/exports) have also declined. In particular, the level of volatile short-term debt fell sharply in 1998 and 1999 and remained relatively flat in 2000.

Trends in capital flows to—and from—developing countries reflect three forces: increased, although still imperfect, financial integration of the global economy, recent structural changes that draw investors to sophisticated business environments, and the continued importance of psychological factors in determining international flows. As reported in this chapter:

- The rise in capital inflows to developing countries through much of the 1990s received much attention. However, capital outflows also increased during the decade. Thus, despite the substantial rise in inflows, the contribution of foreign capital to consumption and investment fell sharply: developing countries’ aggregate current account was in a significant surplus of $60 billion in 2000. At least a part of the decade’s increase in capital inflows may reflect transactions tied to capital outflows, perhaps to avoid taxes. However, increased outflows also reflect increased economic integration with the rest of the world.
- The worldwide boom in cross-border capital flows has been directed toward industrial economies, especially the United States, reflecting optimism about technological trends. The share of developing countries in these flows declined sharply after the crises. The increased concentration of flows within a relative few developing countries reemphasizes the importance of a hospitable investment climate to attract and sustain foreign direct investment (FDI) flows, which, although resilient during the crises, have since tapered off. FDI flows to developing countries are likely to rise again as the rate of diffusion of recent technological innovations picks up, increasing the expected rate of return on investments in developing countries.
- Capital market flows were bolstered over the last year by improvements in domestic creditworthiness. But reduced market liquidity since the crises and continued investor aversion to risk suggest that the memory of the crises remains. For those countries with marginal access to, but significant dependence on, international capital markets, the risk of being unable to roll over their borrowings is potentially significant. At the same time, demand for external capital remains limited in the East Asian crisis countries, where underutilized industrial capac-
ity and the slow pace of corporate restructuring keep investment low. Thus, despite the strong rise in capital inflows this year, capital inflow to GDP ratios are likely to remain off their peaks in the next few years. And a severe downturn in the global economy could lead to a very sharp reduction in capital market flows.

This chapter begins with an overview of the principal trends in aggregate resource flows to developing countries. The rest of the chapter discusses private capital flows, first the trends in FDI and then capital market flows and their projections. The discussion of official international flows is deferred to chapter 4.

**Trends in external finance to developing countries**

External resources to developing countries increased from around $246 billion in 1999 to $299 billion in 2000 (table 2.1). However, developing countries' aggregate current account achieved a surplus of $60.3 billion, and their international reserves increased by only $53 billion, twice as much as in 1999. Hence, in 2000, as throughout the 1990s, much of the capital inflow was reflected in either recorded outflows or “errors and omissions” in the balance of payments statistics. Errors and omissions, in turn, reflect the inability of international financial statistics to identify a significant portion of capital transactions.

Capital outflows from developing countries have different causes and implications. They are a source of concern where they represent capital flight because of a weak investment climate or where tax incentives induce “round tripping” of capital (box 2.1). However, outflows also represent integration with the global economy. Companies in developing economies, especially the more advanced ones, have been investing beyond their own national borders. Feldstein (2000) notes also that gross flows in and out of the country represent hedging of risks.

**Long-term resource flows rise**

Both long-term resource inflows (flows with a maturity of more than 1 year) and short-term flows increased in 2000 but remain significantly below the levels achieved before the East Asian crises (table 2.1). FDI declined modestly (by 4 percent) in 2000—the first decline in a decade—reflecting a slowdown in merger and acquisition (M&A) activity and the completion of some large-scale privatization projects (table 2.2). Capital market flows rose in 2000, after falling in 1998 and 1999, but remained about half their 1996 level. Nonconcessional flows from official sources declined significantly, as the need for large crisis assistance packages abated and repayments on previous packages continued. Concessional official flows rose slightly, continuing the rise that started in 1998 after the sustained fall from 1992 to 1997 (see chapter 4).

**Private flows fail to match recovery**

Although private flows to developing countries rose this past year, this increase has not matched the recovery in the growth of output and trade. By 2000 both output and trade exceeded their levels before the crises, yet private capital flows remained about 15 percent below the peak 1997 level. Thus the ratio of private capital flows to GDP has fallen

---

**Table 2.1 Trends in external finance**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sources of funds</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net long-term resource flows</td>
<td>143.1</td>
<td>194.0</td>
<td>354.4</td>
<td>358.7</td>
<td>283.7</td>
<td>246.2</td>
<td>299.3</td>
</tr>
<tr>
<td>Net short-term flows</td>
<td>123.0</td>
<td>155.8</td>
<td>311.2</td>
<td>342.6</td>
<td>334.9</td>
<td>264.5</td>
<td>295.8</td>
</tr>
<tr>
<td>Uses of funds</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current account deficit</td>
<td>16.9</td>
<td>93.1</td>
<td>150.3</td>
<td>228.3</td>
<td>188.5</td>
<td>246.9</td>
<td>306.6</td>
</tr>
</tbody>
</table>

a. Estimated.
b. Inflows of debt are net of amortization payments, and FDI is net of disinvestment. For this reason, these flows are sometimes referred to as “net” resource flows.
c. Errors and omissions.

TRENDS IN PRIVATE CAPITAL FLOWS

substantially in developing countries as a group (figure 2.1). Capital market flows fell at the onset of the crisis, whereas FDI initially was resilient. However, the recent decline in FDI implies that the ratio of FDI to GDP has also fallen for developing countries as a group.

Developing-country shares of private capital flows decline

Developing countries account for 85 percent of the world’s population but only a little over 20 percent of world output and about 30 percent of world trade, in current dollars (table 2.3). These shares have moved only modestly in recent years. Until 1997, developing countries’ share in global private capital flows was rising, primarily because of a rise in their share of FDI flows from less than a quarter in 1991 to more than one-third in 1997. Their share of private capital market flows also increased, but at a much slower pace. Since then, however, developing countries’ share in total global capital flows has fallen sharply, even though the period has been one of buoyant cross-border capital flows generally. Developing countries suffered because of the crises, of course, but also because capital (especially FDI) was attracted to industrial countries by the high return opportunities available there.

Foreign direct investment

FDI flows to developing countries remained resilient through the financial crises (see World Bank, Global Development Finance 2000), al-

Box 2.1 Capital outflows: causes and implications

Capital outflows from developing countries increased during the 1990s as many countries removed legal restrictions on capital transactions. Increased opportunities for capital outflows allow residents to diversify risk, thus improving their ability to withstand economic and financial shocks. Perhaps more important, part of the outflow of capital from developing countries represents investment in lower-wage countries by companies based in the more advanced newly industrializing countries of East Asia—to the benefit of both the investor and the recipient country (see, for example, Kim 2000).

Despite these benefits, considerable concern remains about the economic impact of capital outflows. In some countries such outflows remain illegal, and many observers view them as undesirable (for a recent discussion, see Loungani and Mauro forthcoming). Circumvention of the remaining legal barriers to capital outflows reduces tax revenue, and some such transactions may support criminal activities. Moreover, even when capital outflows are privately beneficial, they may have adverse impacts on the domestic economy by draining foreign exchange reserves, reducing the resources available for domestic investment, and slowing development of the financial sector.

Perhaps the most important implication of the large capital outflows observed recently is that net capital inflows are, as a result, smaller than they seem. If domestic residents can take money out of the country to avoid tax liabilities, and then bring it back into investments that are tax-exempt, both large outflows and large inflows will be observed. This may be common in two of the countries that report the largest capital outflows: the Russian Federation (Loungani and Mauro forthcoming; Sicular 1998) and China (Sicular 1998; Wei 2000a). But the problem may be more widespread. The growth of offshore centers with special tax treaties fosters the movement of capital to and from these intermediaries. The inflows are typically recorded but the outflows are not, and thus the latter appear in the errors and omissions line.

Controls on capital outflows have typically had little success (for a review see Edwards 1999, especially for the Latin American experience). Similarly, Collier, Hoeffler, and Pattillo (1999) report large capital outflows from African countries (in relation to their domestic wealth) despite efforts to rein them in. Loungani and Mauro (forthcoming) report that controls in effect at the height of capital outflows from the Russian Federation in late 1998 may have had, at best, a limited impact. However, some analysts regard Malaysia’s temporary restrictions on capital outflows (implemented in September 1998 and replaced with graduated exit levies in February 1999) as having helped limit the impact of the financial crisis in that country (Edison and Reinhart 1999).4

In the final analysis, sound economic policies are likely to be the best antidote to large capital outflows. For the transition countries of Central and Eastern Europe, the evidence is clear: as reforms set in and growth prospects improved, capital outflows turned into inflows (see Loungani and Mauro forthcoming, figure 5). Some intermediate measures may help, as in China, where residents can legally use foreign currency deposits to diversify risk without having to transfer the money abroad. Ultimately, better accounting of these flows is essential for improving our understanding of them and for formulating better policies.
Table 2.2 Net long-term resource flows to developing countries, 1991–2000

(billions of dollars)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>123.0</td>
<td>155.8</td>
<td>220.4</td>
<td>223.7</td>
<td>261.2</td>
<td>311.2</td>
<td>342.6</td>
<td>334.9</td>
<td>264.5</td>
<td>295.8</td>
</tr>
<tr>
<td>Official flows</td>
<td>60.9</td>
<td>56.5</td>
<td>53.6</td>
<td>48.0</td>
<td>55.1</td>
<td>31.9</td>
<td>42.8</td>
<td>54.6</td>
<td>45.3</td>
<td>38.6</td>
</tr>
<tr>
<td>Private flows</td>
<td>62.1</td>
<td>99.3</td>
<td>166.8</td>
<td>175.7</td>
<td>206.1</td>
<td>279.3</td>
<td>299.8</td>
<td>280.3</td>
<td>219.2</td>
<td>257.2</td>
</tr>
<tr>
<td>Capital markets</td>
<td>26.3</td>
<td>52.2</td>
<td>100.2</td>
<td>85.6</td>
<td>99.1</td>
<td>147.8</td>
<td>127.2</td>
<td>103.5</td>
<td>33.8</td>
<td>79.2</td>
</tr>
<tr>
<td>Debt flows</td>
<td>18.8</td>
<td>38.1</td>
<td>49.2</td>
<td>50.5</td>
<td>63.0</td>
<td>98.7</td>
<td>97.0</td>
<td>87.9</td>
<td>–0.6</td>
<td>31.3</td>
</tr>
<tr>
<td>Bank lending</td>
<td>5.0</td>
<td>16.2</td>
<td>3.4</td>
<td>8.7</td>
<td>30.5</td>
<td>33.7</td>
<td>45.2</td>
<td>50.0</td>
<td>–24.6</td>
<td>0.7</td>
</tr>
<tr>
<td>Bond financing</td>
<td>10.9</td>
<td>11.1</td>
<td>36.6</td>
<td>38.2</td>
<td>30.8</td>
<td>62.5</td>
<td>49.0</td>
<td>40.9</td>
<td>25.4</td>
<td>30.3</td>
</tr>
<tr>
<td>Other</td>
<td>2.8</td>
<td>10.8</td>
<td>9.2</td>
<td>3.6</td>
<td>1.7</td>
<td>2.4</td>
<td>2.7</td>
<td>2.7</td>
<td>–3.0</td>
<td>0.3</td>
</tr>
<tr>
<td>Equity flows</td>
<td>7.6</td>
<td>14.1</td>
<td>51.0</td>
<td>35.2</td>
<td>36.1</td>
<td>49.2</td>
<td>30.2</td>
<td>15.6</td>
<td>34.5</td>
<td>47.9</td>
</tr>
<tr>
<td>Foreign direct investment</td>
<td>35.7</td>
<td>47.1</td>
<td>66.6</td>
<td>90.0</td>
<td>107.0</td>
<td>131.5</td>
<td>172.6</td>
<td>176.8</td>
<td>185.4</td>
<td>178.0</td>
</tr>
</tbody>
</table>

Note: Inflows of debt are net of amortization payments, and FDI is net of disinvestment. For this reason, these flows are sometimes referred to as “net” resource flows.

a. Estimated.
b. Based on OECD DAC’s Geographic Distribution of Flows, as in chapter 4.

though they had, even in those years, begun to level off after their rapid growth during the early to mid-1990s. Some of the factors that had maintained high levels of FDI, such as M&A in East Asia and large-scale privatization in Latin America, have since largely played themselves out. Moreover, the international environment for FDI has become increasingly competitive, with a growing share of world FDI flows going to industrial economies, especially the United States. Although the long-term prospects for growth in the supply of FDI to developing countries continue to look good, a sound investment climate is essential for countries to attract FDI and also, as chapter 3 discusses, to realize its benefits. 

M&A have accounted for a substantial share of FDI in recent years. Although a large share of these flows is going to the industrial countries, especially the United States, they have an important role to play in developing countries, especially the more advanced, middle-income countries. Privatization of state-owned assets has brought significant benefits across the developing world, including recently in the financial sector. The immediate benefit of cross-border M&A in East Asia following the crisis was to provide funds to help solvent firms with short-term liquidity problems avoid bankruptcy or forced sales of assets. However, there is still insufficient evidence that cross-border M&A transactions have had a significant impact in restructuring the crisis countries’ economies. For example, those sectors where M&A have been particularly active (such as the nontradable sector, which accounts for about half of recent transactions) have not yet shown signs of recovery in production (Mody and Negishi 2001). In the long run M&A can lead to new capital inflows (by the acquirers themselves and by their suppliers) and improved access to technology and organizational techniques.

A surge in global FDI flows—but declining shares for developing countries

World FDI flows have continued to grow rapidly and even accelerated somewhat in the second half of the 1990s (left-hand panel of figure 2.2). These
flows reached $1.1 trillion in 2000, up 14 percent from the previous year. M&A have grown particularly rapidly (right-hand panel of figure 2.2), reaching $720 billion in 1999.

Industrial countries account for much of this upsurge in activity: their share in world FDI flows has risen from a low of 65 percent in 1994 to an estimated 84 percent in 2000. The share of developing countries in global FDI flows has fallen correspondingly. Rapid economic growth in the United States increased that country’s share of global FDI from 18 percent in 1995 to an estimated 26 percent in 2000.

These trends reflect, in part, the high rates of return potentially available in industrial-country markets as a result of rapid technological advances, especially in information technology industries. Moreover, the benefits of adding to existing information networks have helped boost the attractiveness of acquisitions in foreign markets by technologically advanced companies. Feldstein

---

**Table 2.3 Developing-country shares**

(Percent except where stated otherwise)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>In global total private capital flows</td>
<td>11.8</td>
<td>12.4</td>
<td>12.6</td>
<td>12.8</td>
<td>12.4</td>
<td>13.2</td>
<td>14.4</td>
<td>9.9</td>
<td>7.6</td>
<td>7.6</td>
</tr>
<tr>
<td>In global capital market flows</td>
<td>9.7</td>
<td>9.4</td>
<td>9.4</td>
<td>9.0</td>
<td>9.0</td>
<td>9.8</td>
<td>10.8</td>
<td>6.2</td>
<td>4.7</td>
<td>5.3</td>
</tr>
<tr>
<td>In global FDI flows</td>
<td>22.3</td>
<td>27.4</td>
<td>29.5</td>
<td>35.2</td>
<td>32.3</td>
<td>34.9</td>
<td>36.5</td>
<td>25.9</td>
<td>18.9</td>
<td>15.9</td>
</tr>
<tr>
<td>In global output</td>
<td>19.8</td>
<td>19.2</td>
<td>19.7</td>
<td>20.0</td>
<td>20.7</td>
<td>22.1</td>
<td>23.2</td>
<td>21.6</td>
<td>21.7</td>
<td>22.5</td>
</tr>
<tr>
<td>In global trade</td>
<td>26.5</td>
<td>28.3</td>
<td>28.3</td>
<td>28.4</td>
<td>29.5</td>
<td>31.3</td>
<td>32.4</td>
<td>30.7</td>
<td>30.7</td>
<td>33.4</td>
</tr>
<tr>
<td>In global population</td>
<td>84.1</td>
<td>84.3</td>
<td>84.4</td>
<td>84.5</td>
<td>84.6</td>
<td>84.7</td>
<td>84.9</td>
<td>85.0</td>
<td>85.1</td>
<td>85.2</td>
</tr>
</tbody>
</table>

**Memo items (billions of dollars):**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Global capital market flows</td>
<td>794</td>
<td>850</td>
<td>1,226</td>
<td>1,501</td>
<td>1,928</td>
<td>2,403</td>
<td>2,929</td>
<td>3,033</td>
<td>3,910</td>
<td>4,324</td>
</tr>
<tr>
<td>Global FDI</td>
<td>160</td>
<td>172</td>
<td>226</td>
<td>256</td>
<td>331</td>
<td>377</td>
<td>473</td>
<td>683</td>
<td>982</td>
<td>1,118</td>
</tr>
</tbody>
</table>

*Note: Private capital flows are defined as the sum of gross capital market commitments plus FDI.


---

**Figure 2.2 Foreign direct investment and cross-border mergers and acquisitions**

Note: The top 10 recipients of FDI based on the volume of accumulated FDI flows over the period 1991–2000 are (in descending order) China, Brazil, Mexico, Argentina, Malaysia, Poland, Chile, the Republic of Korea, Thailand, and the República Bolivariana de Venezuela. The top 10 target countries of M&A activity, based on the accumulated values of sales over the period, are Brazil, Argentina, Mexico, the Republic of Korea, Chile, the Philippines, Poland, South Africa, the República Bolivariana de Venezuela, and China.

*a. A group of 47 countries as classified by the United Nations.

(2000) suggests that these recent trends may reflect a one-time reallocation of capital in response to the significant rise of knowledge as a production input. However, over time, some developing countries stand to gain as the technologies become more mature and the advantages of low-cost locations reassert themselves.

**Developing-country trends.** FDI flows to developing countries rose dramatically during most of the 1990s, from $35 billion in 1991 to $185 billion in 1999, before falling back to $178 billion in 2000. The share of FDI in developing countries’ GDP jumped from less than 1 percent to about 2.5 percent over this period (figure 2.3). The largest gains went to the top 10 developing-country recipients of FDI, which accounted for 74 percent of total FDI flows to the developing world in 2000. FDI inflows in these countries were equivalent to about 3.8 percent of their GDP.

As already noted, the slowdown in FDI flows to developing countries reflects both the increased attractiveness of investment in industrial economies and the playing out of factors that had kept FDI buoyant. For example, cross-border asset sales from East Asia have declined from their level during and immediately after the crisis. Also, as noted in appendix 4, although privatization activities in developing countries remain vibrant, large-scale privatization projects in Latin America—a driving force of FDI in the region over the past few years—appear to have peaked. This is particularly evident in the infrastructure and financial sectors.

Thus declines in new foreign investment commitments in major recipient countries have begun to be reflected in a slowdown in FDI flows.

The recent slowdown is likely to be followed by another period of growth in FDI, albeit perhaps not so rapid as during the 1990s. The rate of diffusion of recent technological innovations to developing countries should pick up, particularly as the Internet and other improvements in telecommunications exert their effect. These forces will increase the expected rate of return on investments in developing countries relative to that in industrial countries. Furthermore, globalization and more widespread economic integration will encourage deeper sectoral reform, thereby creating more opportunities for FDI, both in new (greenfield) investment projects and through privatization of existing state assets. Of course, the timing of such a resurgence of FDI is difficult to predict. But in the long run, FDI will continue to play a significant role in the growth of developing economies, not only because of its sheer volume and relative stability but also because of the various associated spillover effects in technology and skills.

**Low-income countries.** The low-income countries as a group failed to participate fully in the surge in FDI over the 1990s. FDI flows to these countries rose from $3 billion in 1991 to $12 billion in 2000 but remained less than 2 percent of their GDP. The share of the low-income countries in all FDI flows to developing countries fell to 7 percent, or less than three-quarters the 1991 share (table 2.4). Within low-income countries, the 47 least developed countries, as classified by the United Nations, received an estimated $4.5 billion in FDI in 2000. Much of the inflows to this group went to five countries that attract FDI for natural resource–based industries such as petroleum and minerals. Bangladesh has been an important exception, attracting flows into both the infrastructure and manufacturing sectors (box 2.2).

Sub-Saharan Africa has had particular difficulty in attracting FDI, reflecting insufficient market size, poor infrastructure, political uncertainty, corruption, and restrictive policy regimes toward foreign investment (Bhinda and others 1999). However, several African countries have improved the environment for FDI recently by easing restrictions on FDI inflows, entering into international agreements (providing for investment guarantees and dispute settlement mechanisms), and conclud-
ing bilateral investment treaties to protect foreign investors' interests (United Nations Conference on Trade and Development 1999, 2000a). These reforms have led to some diversification of FDI inflows toward activities outside the resource-based sectors that have traditionally dominated FDI to the region. Countries that are not major exporters of oil or minerals received about half of FDI inflows to Sub-Saharan Africa in 1995–2000, compared with only 24 percent in 1991–94 (figure 2.4). For example, Lesotho, Mozambique, Tanzania, and Uganda, which receive the bulk of their FDI in agriculture, light manufacturing, and utilities, saw sharp increases in FDI inflows (table 2.5; see also Economist Intelligence Unit 2000).

The investment climate and FDI
The major challenge for developing-country governments in attracting FDI is to establish a favorable climate for investment. Developing countries achieved significant improvements in the regulations governing FDI during the 1990s. Licensing requirements were removed, sectors previously closed to foreign investment were opened, restrictions limiting the share of ownership by foreign investors were eased, rules governing trade and foreign exchange transactions involving foreigners were liberalized, laws on the protection of intellectual property were strengthened, the regulatory framework for domestic financial markets was improved, and tax systems were made more neutral as between

<table>
<thead>
<tr>
<th>Table 2.4 FDI flows to middle- and low-income countries and least developed countries (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDI inflows as a share of total developing-country FDI</td>
</tr>
<tr>
<td>Middle-income countries</td>
</tr>
<tr>
<td>Low-income countries</td>
</tr>
<tr>
<td>Ratio of FDI inflows to GDP</td>
</tr>
<tr>
<td>Middle-income countries</td>
</tr>
<tr>
<td>Low-income countries</td>
</tr>
<tr>
<td>FDI flows to least developed countriesb</td>
</tr>
<tr>
<td>As share of total developing-country FDI</td>
</tr>
<tr>
<td>As ratio to their GDP</td>
</tr>
</tbody>
</table>

a. Estimated.
b. A group of 47 countries as defined by the United Nations.
Source: World Bank, Global Development Finance: Country Tables and sources cited therein, various years; World Bank, World Development Indicators, various years; and World Bank staff estimates for 2000.

Box 2.2 Foreign direct investment in Bangladesh

I
n the early 1990s Bangladesh removed several restrictions on foreign investors, including prior approval requirements, limits on foreign equity participation, and limits on repatriation of profits. Foreign direct investment (FDI) inflows jumped from $14 million in 1996 to $180 million in 1999, a faster rate of growth over this period than in any other low-income country. Even so, FDI flows were equivalent to only 0.4 percent of the country’s gross domestic product by 1999. The rise in FDI was accompanied by some shift from a primary focus on the natural gas sector to manufacturing and services. Manufacturing and services industries operating outside the country’s export processing zone received more than 30 percent of total inflows from 1996–99. Major stakes in local cellular phone companies are now held by foreign firms, including Norway’s Telenor and Telecom Malaysia International. Nevertheless, the energy sector remains a major recipient of FDI flows. Although the foreign capital has been welcome, the challenge ahead lies in harnessing it for long-term development purposes. In particular, regulatory regimes that ensure productive efficiency and reasonable costs to consumers will be required. Also, appropriate exchange rate management and improvements in the performance of state enterprises in the energy sector will be important in supporting the balance of payments as profit repatriation increases over the next decade (World Bank 1999).
domestic and foreign investors (European Round Table of Industrialists 2000; United Nations Conference on Trade and Development 1999).

Developing countries also implemented improvements in the broader investment climate. A series of three surveys of 28 developing countries (selected to provide adequate representation of all regions that receive major FDI flows) found that all achieved some improvement in the overall investment climate from 1992 to 1999. Moreover, in the first survey (covering 1987–92), 10 of the countries were viewed as having relatively high impediments to private investment, and only one provided more freedom to private investment than the Organisation for Economic Co-operation and Development (OECD) countries. By the third survey (1997–99), however, no country had high impediments to investment, and 13 had more open investment climates than the OECD countries (European Round Table of Industrialists 2000). These changes have had an appreciable role in increasing FDI flows to developing countries. For example, all the Latin American countries in the sample received the highest rating for the quality of the investment environment, and FDI inflows to these countries increased at annual rates of 50 percent between the first survey and the third. In general, improvements in countries’ investment climate were associated with rapid growth of FDI inflows (left-hand panel of figure 2.5). Similarly, reduced corruption and improved governance were positively correlated with FDI growth (right-hand panel of figure 2.5).

In many countries, however, more remains to be done. Corruption, unnecessary regulatory requirements, complicated or nontransparent administrative procedures, and insufficient protection of physical and intellectual property rights still impose substantial costs on foreign and domestic investors (Hoekman and Saggi 1999). Corruption tends to have a greater impact on foreign direct investors, given their closer interactions with local officials as well as with domestic suppliers and clients, than on banks and portfolio investors. A recent study found that corruption (as measured by the extent of irregular, additional payments in connection with business transactions) in 53 countries that host FDI significantly reduced FDI inflows; a one-standard-deviation increase in the corruption index was associated with a 33 percent fall in FDI (Wei 2000b). Another study examined the impact of transparency, including corruption as well as other influences on investment such as bureaucratic quality and law and order. For 52 industrial and developing countries over the period 1991–95, the study found that a one-point increase in an index of the level of transparency (the level of the index for the 52 countries ranged from 8.5 to 38) was associated with an average 40 percent increase in FDI inflows. This represents a substantial rise in FDI for such a small change in relative transparency (Drabek and Payne 2000).

**Mergers and acquisitions**
Cross-border M&A activity is conventionally defined as transactions in which a foreign purchaser acquires more than a 10 percent stake in an existing domestic enterprise. As already noted, such transactions were the principal source of the up-
surge in FDI over the past few years, reaching $720 billion in 1999, up 35 percent from 1998. Global M&A flows largely reflected transactions between firms within industrial countries. The United States was the primary destination of such flows (figure 2.6), with the largest transactions in the telecommunications, finance, and insurance industries. Developing countries accounted for only 9 percent of total cross-border M&A in 1999. However, despite this small share, M&A transactions are taking on an increasingly important quantitative and economic role in developing countries.

**Developing-country trends.** M&A activity in developing countries has increased substantially in recent years. The number of cross-border M&A transactions rose by 50 percent from 1995 to 1999. M&A transactions account for a large share of the dollar value of FDI flows to developing countries over the past few years. Differences in definitions between data on FDI and data on cross-border M&A imply care is required when comparing the two on a global basis (box 2.3). However, if we assume that these differences in definitions are not significant for developing countries, the share of M&A in their FDI rose from 18 percent in 1995 to 36 percent in 1999. Cross-border M&A in developing countries reached $75 billion in 1998 but fell to $67 billion in 1999 (right-hand panel of figure 2.7).

Virtually all of these transactions have been concentrated in the middle-income countries, largely reflecting privatization transactions in Latin America and postcrisis asset sales in East Asia. Latin America has been the largest recipient of cross-border FDI in the form of M&A, largely

---

**Figure 2.5 Investment climate and FDI flows in host countries**

**Figure 2.6 FDI in the United States by type of entry**

Note: Investment climate index is on a scale of 1–6. Governance indicators are based on six areas (voice and accountability, political stability, government effectiveness, regulatory framework, rule of law, and control of corruption) on a scale of −2.5 to 2.5.

Box 2.3 Foreign direct investment and mergers and acquisitions: definitional issues

Foreign direct investment (FDI) can take two forms: greenfield investments to build new capacity, or the acquisition of assets of existing local firms. In principle, the balance of payments statistics that record FDI include both forms, although they do not differentiate between them. Hence trends in FDI through cross-border mergers and acquisitions (M&A) are typically constructed by assembling reports of individual transactions. However, three differences between the coverage of data on M&A transactions and the balance of payments statistics make it difficult to formulate precise comparisons of data from the two sources. First, the data on cross-border M&A transactions include purchases that are financed with domestic resources (for example, by borrowing from domestic banks); such transactions do not appear as FDI in the balance of payments statistics. Second, the aggregate value of cross-border M&A transactions represents payments for the assets purchased by foreign investors. On the other hand, FDI as defined in the balance of payments is on a net basis: equity, reinvested earnings, and intrafirm debts are inflows, but debits on the capital account due to disinvestment are subtracted. Third, transaction values of cross-border M&A are recorded at the time of announcement or completion of the deal, even when the payments are made over more than a single year (United Nations Conference on Trade and Development 2000b). In the balance of payments accounts, only flows occurring within a given year are recorded for that year.

Increased competition in nontradable sectors. This new generation of M&A-based FDI is breaking new ground by entering into sectors that produce nontradable goods and services, whereas greenfield FDI has been largely focused on manufacturing. About half of M&A activity in East Asia has been in such nontradable industries as wholesale and retail trade, real estate, and the financial industry. By breaking into these often-monopolistic activities, foreign investment can have a significant economic impact through the transfer of modern operational practices and through greater competition in the domestic economy. Evidence from the Latin American privatizations of infrastructure assets suggests strongly that the productivity benefits

Figure 2.7 Aggregate FDI and M&A: regional trends

are significant—and that the poor gain better access to services (Klein 2000).

However, the extent of competition will depend upon the effectiveness of domestic competition policy. Evidence from the financial sector suggests that foreign banks have indeed had beneficial effects through greater competition, but a greater foreign presence is not necessarily associated with more financial sector stability (box 2.4).

Was there a "fire sale" after the Asian crisis? The recent wave of M&A transactions in East Asia has raised the concern of "fire sales" of domestic assets. Some argue that assets have been sold to foreigners at prices below their long-term value because sellers lack liquidity and markets are thin. This is not an easy proposition to evaluate. Even though asset prices did drop precipitously after the crisis, it is not clear whether they were below their long-term values. Krugman (1998) suggests that these sales can be interpreted in two very different ways. Precrisis asset values may have been inflated by implicit guarantees that ultimately failed, so that the crisis merely restored asset values to their appropriate level. In that case the assets were sold at equilibrium long-term prices. The alternative explanation is that excessive depreciation of the local currency, perhaps the result of contagion in international markets, forced domestic firms to liquidate to pay off short-term foreign currency debt. Foreign firms that were not as liquidity-constrained purchased these domestic firms or projects, which, once the exchange rate returns to its equilibrium level, will generate a stream of profits above the liquidation value. Under these assumptions, wealth was transferred from the domestic economy to foreigners, because assets were sold below their long-term value.

It is difficult to obtain sufficient price information on these postcrisis M&A transactions to evaluate the discounts involved. However, the evidence suggests that the surge in M&A activity in East Asia reflected more the easing of restrictions on foreign ownership than a rash of distress sales. For example, the Republic of Korea, the country that recovered the fastest from the crisis, gained the most from the stepped-up M&A activity. Also, M&A activity continued in the region even after currencies started appreciating again. The evidence on sales of distressed assets is mixed. Although some Thai assets sold for about 25 percent of their book value, a range of Korean assets sold for around 50 percent of book value, and in Malaysia some sales were reported at prices as high as 80 percent of book value. These differing prices indicate the widely differing quality of assets sold.

Capital market flows
Gross capital market commitments to developing countries rose to $236 billion worldwide in 2000, a 27 percent increase over 1999 (table 2.6). Nevertheless, these commitments have not caught up with the recovery in production and trade since the financial crisis but instead remain at three-fourths of their 1997 level. The level of capital market financing to most countries reflected supply constraints owing to investors’ reduced appetite for risk and to increases in short-term interest rates. In addition, demand for capital financing from the East Asian crisis countries was limited by continued low investment rates, reflecting excess capacity and the slow pace of corporate restructuring.

Within the developing world, capital market financing has become even more highly concentrated over the past few years. Middle-income countries accounted for 97 percent of all capital market financing to developing countries, up from 95 percent in 1997. The bulk of capital market financing to low-income countries is in the form of syndicated bank lending (typically for short-term, trade-related financing), and this has declined since 1997. Moreover, financing to just three middle-income countries (Brazil, China, and Turkey) increased by $43 billion in 2000, or just $7 billion less than the total rise in capital market flows to developing countries as a group. Korea and South Africa received an additional $11 billion. Thus capital market financing to the rest of the developing world fell by $4 billion.

This section first provides a brief overview of debt and the rapidly growing portfolio equity financing. It then highlights some important domestic and external determinants of capital flows into developing countries and concludes with forecasts of capital flows.

Debt flows
Gross flows to developing countries from bond markets increased modestly (about 10 percent) in 2000, and bank lending commitments rose by almost one-third. Several developing countries faced
The globalization of financial services and the easing of restrictions on foreign participation since the mid-1990s have boosted foreign direct investment (FDI) flows to the financial sector in developing countries. In the transition economies of Central and Eastern Europe, FDI to the financial sector has largely entered through the purchase of government-owned banks. The share of bank assets under foreign control (that is, in banks where foreigners own more than 50 percent of the equity) in Hungary, Poland, and the Czech Republic increased to more than 50 percent by the end of 1999, compared with less than 10 percent in 1994 (see figure). FDI in Latin America’s financial sector has mostly come about through the purchase of privately owned domestic banks. The share of banking assets under foreign control reached 25 percent at the end of 1999, up sharply from 8 percent in 1994. Finally, in East Asia foreigners have purchased local banks in financial distress. There the share of assets under foreign control increased to 6 percent in 1999 from less than 2 percent in 1994.

Foreign participation can have an important impact on both efficiency and stability in developing-country banking systems. Competition from foreign banks can force domestic banks to become more efficient. Recent studies indicate that foreign-owned banks in developing countries tend to perform more efficiently than locally owned banks (International Monetary Fund 2000b). Claessens, Demirgüç-Kunt, and Huizinga (2001) found that, during 1988–95, foreign banks had higher interest rate margins, profitability, and tax payments than did domestic banks. Foreign banks in developing countries tend to be more profitable and have a smaller percentage of nonperforming loans than do locally owned banks, largely because of better credit practices and better access to international markets. (In the East Asian crisis countries, foreign banks primarily acquired insolvent local institutions; hence their percentage of nonperforming loans is high, as the table below reveals.)

Foreign banks can help improve the host country’s financial stability through increased access to global financial markets. However, greater competition from foreign banks can also lower the franchise value of domestic banks, giving them an incentive for greater risk taking and potentially contributing to financial instability. As a consequence, the evidence on the role of foreign banks in promoting stability is mixed (International Monetary Fund 2000b). Effective supervision and regulation of domestic financial markets as well as sound balance sheets of existing local institutions are important to ensure the benefits of foreign entry in the financial sector.

### Box 2.4 Mergers and acquisitions in the financial sector

The globalization of financial services and the easing of restrictions on foreign participation since the mid-1990s have boosted foreign direct investment (FDI) flows to the financial sector in developing countries. In the transition economies of Central and Eastern Europe, FDI to the financial sector has largely entered through the purchase of government-owned banks. The share of bank assets under foreign control (that is, in banks where foreigners own more than 50 percent of the equity) in Hungary, Poland, and the Czech Republic increased to more than 50 percent by the end of 1999, compared with less than 10 percent in 1994 (see figure). FDI in Latin America’s financial sector has mostly come about through the purchase of privately owned domestic banks. The share of banking assets under foreign control reached 25 percent at the end of 1999, up sharply from 8 percent in 1994. Finally, in East Asia foreigners have purchased local banks in financial distress. There the share of assets under foreign control increased to 6 percent in 1999 from less than 2 percent in 1994.

Foreign participation can have an important impact on both efficiency and stability in developing-country banking systems. Competition from foreign banks can force domestic banks to become more efficient. Recent studies indicate that foreign-owned banks in developing countries tend to perform more efficiently than locally owned banks (International Monetary Fund 2000b). Claessens, Demirgüç-Kunt, and Huizinga (2001) found that, during 1988–95, foreign banks had higher interest rate margins, profitability, and tax payments than did domestic banks. Foreign banks in developing countries tend to be more profitable and have a smaller percentage of nonperforming loans than do locally owned banks, largely because of better credit practices and better access to international markets. (In the East Asian crisis countries, foreign banks primarily acquired insolvent local institutions; hence their percentage of nonperforming loans is high, as the table below reveals.)

Foreign banks can help improve the host country’s financial stability through increased access to global financial markets. However, greater competition from foreign banks can also lower the franchise value of domestic banks, giving them an incentive for greater risk taking and potentially contributing to financial instability. As a consequence, the evidence on the role of foreign banks in promoting stability is mixed (International Monetary Fund 2000b). Effective supervision and regulation of domestic financial markets as well as sound balance sheets of existing local institutions are important to ensure the benefits of foreign entry in the financial sector.

### Performance indicators of foreign and domestically owned banks in three developing regions, 1996–98

<table>
<thead>
<tr>
<th>Region</th>
<th>Return on equity</th>
<th>Cost-to-income ratio</th>
<th>Ratio of nonperforming loans to total loans</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Foreign a</td>
<td>Domestic</td>
<td>Foreign a</td>
</tr>
<tr>
<td>Eastern Europe</td>
<td>19.3</td>
<td>−5.0</td>
<td>59.9</td>
</tr>
<tr>
<td>Latin America</td>
<td>6.3</td>
<td>47.7</td>
<td>77.9</td>
</tr>
<tr>
<td>East Asia</td>
<td>−35.7</td>
<td>−14.3</td>
<td>63.8</td>
</tr>
</tbody>
</table>

a. Institutions in which foreigners own more than 50 percent of equity.

Source: International Monetary Fund 2000b.
high lending rates and continued to experience difficulties in accessing international capital markets despite the substantial recovery of global output and trade since the financial crises.

Investors’ concern over conditions in developing-country markets was reflected in the continued high level of secondary market spreads on emerging-market eurobonds over comparable U.S. Treasury securities. Although spreads continued to decline from the high point reached in September 1998, at the onset of the Russian crisis, average spreads (as indicated by J.P. Morgan’s Emerging Market Bond Index+, or EMBI+) stood at 707 basis points in mid-January 2001. Spreads at this level were down from about 900 basis points at the beginning of 2000 but remained 200 basis points above levels seen in 1997 and the first half of 1998. Borrowing costs, as measured by the yield (the spread plus the benchmark U.S. Treasury rate) implied by EMBI+, remained higher during the last two years than before the crisis (figure 2.8).10

The average borrowing cost paid by developing countries in the primary markets for new bonds and syndicated loans rose as well, and remained higher than during the financial crises (probably reflecting a flight to quality during the crises). The average spread paid by developing countries over the relevant risk-free rate for launching eurobond

### Table 2.6 Capital market commitments to developing countries by type of flow

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Amount (billions of dollars)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>76.9</td>
<td>80.1</td>
<td>115.7</td>
<td>135.5</td>
<td>173.3</td>
<td>236.4</td>
<td>315.8</td>
<td>189.3</td>
<td>185.5</td>
<td>236.4</td>
</tr>
<tr>
<td>Bond issuance</td>
<td>11.0</td>
<td>20.1</td>
<td>50.1</td>
<td>45.7</td>
<td>52.6</td>
<td>97.6</td>
<td>114.3</td>
<td>73.0</td>
<td>70.3</td>
<td>77.2</td>
</tr>
<tr>
<td>Bank lending</td>
<td>61.3</td>
<td>54.0</td>
<td>57.5</td>
<td>72.8</td>
<td>112.7</td>
<td>125.2</td>
<td>179.1</td>
<td>107.8</td>
<td>94.0</td>
<td>124.4</td>
</tr>
<tr>
<td>Equity placement</td>
<td>4.6</td>
<td>6.0</td>
<td>8.1</td>
<td>17.0</td>
<td>8.0</td>
<td>13.7</td>
<td>22.4</td>
<td>8.6</td>
<td>21.1</td>
<td>34.8</td>
</tr>
<tr>
<td>of which, China</td>
<td>0.0</td>
<td>0.7</td>
<td>1.9</td>
<td>2.6</td>
<td>0.9</td>
<td>2.1</td>
<td>9.4</td>
<td>1.1</td>
<td>3.3</td>
<td>21.2</td>
</tr>
<tr>
<td><strong>Share of middle-income countries’ (percent)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>77.9</td>
<td>95.6</td>
<td>94.2</td>
<td>90.9</td>
<td>92.7</td>
<td>93.3</td>
<td>94.7</td>
<td>93.8</td>
<td>96.3</td>
<td>96.7</td>
</tr>
<tr>
<td>Bond issuance</td>
<td>94.6</td>
<td>99.9</td>
<td>98.5</td>
<td>96.3</td>
<td>97.9</td>
<td>96.8</td>
<td>97.0</td>
<td>97.5</td>
<td>99.4</td>
<td>99.6</td>
</tr>
<tr>
<td>Bank lending</td>
<td>73.2</td>
<td>94.1</td>
<td>90.9</td>
<td>91.8</td>
<td>90.0</td>
<td>90.9</td>
<td>93.2</td>
<td>90.8</td>
<td>94.1</td>
<td>94.7</td>
</tr>
<tr>
<td>Equity placement</td>
<td>100.0</td>
<td>94.7</td>
<td>91.5</td>
<td>72.7</td>
<td>96.6</td>
<td>90.2</td>
<td>95.5</td>
<td>99.4</td>
<td>95.7</td>
<td>97.4</td>
</tr>
</tbody>
</table>

a. Includes China.

Source: Capital DATA Bondware and Loanware, and World Bank staff estimates.

### Figure 2.8 Developing-country yields and U.S. interest rates

Source: Bloomberg and J.P. Morgan.
issues rose almost 70 basis points from 1998 levels, to 450 basis points in 2000.11 Average interest rates on bank loans also rose in 2000 compared with 1998 levels (left-hand panel of figure 2.9). Bank lending rates are traditionally lower than bond rates, reflecting the shorter maturity of bank loans and the closer relationships between banks and borrowers (and hence lower default risk) than between banks and bondholders.

This rise in primary spreads has been accompanied by a fall in average lending maturities. The average maturity on bonds issued by developing countries was roughly stable during the crisis; however, it then shortened by more than two years (about 25 percent of the 1998 level) in 1999 and stayed at about the same level in 2000 (right-hand panel of figure 2.9). Average maturities on syndicated bank lending have changed little since the crisis. All in all, the rise in spreads and the shortening of debt maturities since the crisis indicate that concerns over credit risk in developing economies remain high.

Portfolio equity flows

From a longer-term perspective, perhaps the most important developments in capital flows to developing countries are taking place in the equity markets. In contrast to trends in debt flows, equity placements in developing countries have increased sharply over the past two years, from $8.6 billion in 1998 to $34.8 billion in 2000. Equity flows in 2000 accounted for 15 percent of all capital market flows to developing countries, compared with 5 percent in 1998.

Several factors have contributed to this growth. Technological innovations in the information and telecommunications industries caused a runup in technology stocks in industrial countries. This led some investors to buy technology stocks in developing countries in the expectation of similar gains as they adopt these new technologies. Prices of technology stocks in emerging markets rose sharply in 1999 and early 2000, but a steep decline ensued as technology stocks in the industrial countries dropped later in the year.

In addition, it has become easier for industrial-country investors to participate in developing countries’ equity placements. More emerging market companies are able to issue American Depository Receipts (or their equivalent); these instruments allow foreigners to buy stakes in these firms with greater procedural simplicity and security than if they invested directly in developing-country markets (see International Monetary Fund 2000b for a detailed discussion). At the same time, more emerging market companies are listing their shares on stock exchanges in the major industrial countries. More rapid communications have reduced transaction costs and increased market liquidity. And

---

**Figure 2.9 Primary market cost of borrowing**

**Developing countries’ cost of borrowing in primary debt**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bond financing</td>
<td>8.0</td>
<td>8.5</td>
<td>9.5</td>
<td>9.2</td>
<td>9.6</td>
</tr>
<tr>
<td>Bank lending</td>
<td>6.7</td>
<td>7.2</td>
<td>7.4</td>
<td>8.2</td>
<td>8.9</td>
</tr>
</tbody>
</table>

**Average maturity in credit markets**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bond financing</td>
<td>7.1</td>
<td>4.4</td>
<td>4.8</td>
<td>4.7</td>
<td>5.3</td>
</tr>
<tr>
<td>Bank lending</td>
<td>8.3</td>
<td>8.2</td>
<td>8.2</td>
<td>5.6</td>
<td>5.6</td>
</tr>
</tbody>
</table>

*Source: Capital DATA Bondware and Loanware, and World Bank staff estimates.*
efforts to meet higher standards of corporate governance may provide for easier monitoring of managers, leading to reduced agency costs.

The prospects for equity flows to developing countries are promising, but important challenges lie ahead. Like total capital market financing, portfolio equity flows are highly concentrated in a few countries. In 2000 just four countries—Brazil, China, Mexico, and Turkey—accounted for about 85 percent of all equity flows to developing countries. Flows to these countries—especially Brazil, China, and Turkey—have supported their stronger-than-average stock market performance over the past two years, although in the latter part of 2000 even these countries were hurt by the general fall in markets (figure 2.10). In Turkey, concerns over domestic conditions such as an increasing current account deficit, slow privatization, and stubborn inflation also contributed to the decline in stock prices.

The volatility of equity flows remains an issue. Equity flows, by definition, do not mature and are not subject to redemption. Thus “rollover” risk is much less for equity than for either bonds or loans. Equity holders can withdraw their funds in a crisis, but typically only by incurring large losses on their holdings. This has led some to suggest that equity holders will have longer time horizons than debt holders. However, in practice this has not necessarily been the case. In three of the recent crises—in Mexico, East Asia, and the Russian Federation—mutual funds (which represent some of the most significant investments in emerging markets) withdrew large sums of money, contributing to the loss of liquidity.

Determinants of capital market flows

Both domestic factors and international market sentiment determine capital inflows. Domestic factors, as proxied by sovereign credit ratings, have either stabilized or improved. As noted above, however, international investors’ reduced appetite for risk has constrained the recovery of capital market flows to many countries since the financial crises of the late 1990s. On balance, there is evidence that some countries in Latin America continue to face credit ceilings in international capital markets, although in East Asia supply and demand for new funds (gross inflows) are about in balance (box 2.5). In East Asia, despite the region’s current account surpluses, new inflows of capital will be needed to repay existing debt obligations.

This section examines first the domestic and then the external determinants of capital market flows in the second half of the 1990s, with a view to developing (in the next section) forecasts of capital market flows to developing countries over the next few years.
Box 2.5  Are developing countries credit rationed?

Credit markets often clear through quantity rationing rather than through changes in interest rates. Lenders may not be willing to increase their exposure to some borrowers even at very high interest rates because of the risk of default. In fact, increases in interest rates, by increasing the financial burden on borrowers, may by themselves raise the risk of default. Credit rationing is particularly important in lending to developing countries because of the difficulties that foreign lenders face in collecting on defaulted debt, either because of sovereign immunity or because it is hard to enforce claims against private borrowers in many countries. This rationing may be a long-term phenomenon in some countries, but in others it may result from sharp changes in the demand for or supply of credit that give rise to a “credit crunch.”

Although credit rationing is no doubt common, it is difficult to determine whether any given borrower is subject to a quantity constraint or could borrow more by offering to pay a higher interest rate. An econometric approach to determining the probability of credit rationing involves estimating supply and demand functions for capital market flows (an aggregation of bond, equity, and syndicated loan flows). This estimation is used to determine the probability that capital is rationed—that supply is less than demand. Such supply and demand functions were estimated for capital flows to Brazil, the Republic of Korea, Mexico, and Thailand over the period 1992–2000.

For the two Latin American countries, the model found that the probability that capital was rationed was at or about 100 percent during the 1994 and 1998 crises. The model also suggests that both countries were still subject to rationing during 1999 and 2000, with the probability for Mexico around 80 to 90 percent.

Although the supply of capital to Korea and Thailand was clearly constrained during the 1997–98 East Asian crisis, the probability that credit was rationed was much lower in both countries in 1999 and early 2000. Indeed, for Thailand the model generates a probability of 50 percent, suggesting that price changes likely cleared the market. For Korea the probability of rationing is only slightly higher.

Although these results reflect many factors, the differing behavior of reserves in the two groups of countries provides particular insight into the evidence for rationing. Both the ratio of reserves to short-term debt and the ratio of reserves to imports have risen strongly in Korea since 1997. This reflects increased supply (because of greater creditworthiness) and reduced demand (because of the 1998 recession) for foreign capital. Both of these influences tended to reduce the probability that capital was rationed. The ratio of reserves to short-term debt in Thailand also rose, although that country’s reserves-to-imports ratio appears to have stagnated and even slightly worsened after rising sharply at first.

The behavior of these ratios in the Latin American countries is quite different. In general, the ratios are much lower. Further, the collapse in the reserves-to-imports ratio in Mexico in the 1993–94 period coincided with a steep rise in the probability of rationing. The results also indicate that credit to Mexico is still being rationed in international capital markets. In Brazil the ratio of reserves to short-term debt is strongly correlated with the supply of capital and (inversely) with the probability of rationing. This is particularly evident in the rise in the probability of rationing during 1999 and 2000.

The behavior of reserves, although an important indicator of both the supply of and the demand for capital, only tells part of the story. For example, the slightly increased probability of rationing at the very end of the estimation period for Korea mirrors a rise in demand for capital. This is due in large measure to a recovery in economic activity, reflected in an upturn in both output growth and stock prices toward the middle of 2000. On the other hand, the fairly flat output growth and stock price movements in Thailand during mid-2000 translate into flat capital inflow demand, so that the Thai economy does not appear credit rationed.

Source: Mody and Taylor, forthcoming.

Domestic factors. A variety of domestic factors influence capital flows into a country. A summary measure of these influences is the country’s sovereign rating, which reflects the country’s ability to repay its debt and takes into account the country’s growth prospects, its debt burden, the soundness of its economic policies, political uncertainties, and several other factors. Following the recent series of emerging market crises, ratings fell sharply almost across the board, and although they have been improving recently, the rating agencies have remained cautious in approving upgrades. Additionally, and although ratings should, in principle, encompass country liquidity, a widely watched measure is the level of a country’s foreign exchange reserves, to guard against sudden loss of favor by international investors. Once again, improvements are evident, especially in East Asia.
After the precipitous downgrading during the crisis, credit ratings in East Asia and, to a lesser extent, in Latin America, have remained lower than before the crises (figure 2.11). Sovereign ratings in Latin America continued to worsen after the Brazilian crisis of early 1999 until Mexico’s credit was upgraded in early 2000, and Brazil’s more recently.13

A particularly important source of vulnerability has been the extent of short-term debt (see Global Development Finance 2000). Even when a country’s debt position is sustainable over the long term, high short-term debt may cause a temporary loss of liquidity and hence render a country vulnerable to a sudden loss in confidence.11

Despite the decline in the average maturity of new loans noted above, the share of short-term debt (loans with a remaining maturity of one year or less) in developing countries’ total debt fell from 52 percent in 1997 to 46 percent in 2000 (table 2.7).14 This in part reflects the sharp withdrawal of short-term loans to East Asian banks during the crisis.15 The continuing decline in the share of short-term debt may have resulted from borrowers’ attempts to reduce their short-term exposure, after the crisis demonstrated the dangers of a sudden loss of confidence.

As discussed in Global Development Finance 2000 (World Bank 2000), it has been suggested that a country’s reserves should at least be equal to its short-term debt, to ensure that the country can meet liquidity challenges. By this measure East Asia has developed a strong safeguard; in Latin America as well, the level of reserves is sufficient to repay all debt payments due over the course of a year.

Emerging markets are also vulnerable to other domestic developments, including appreciation of the currency, deterioration in the current account, and banking sector fragilities. Developments last year in Argentina and Turkey highlight these vulnerabilities (box 2.6). In both cases, however, the problems were viewed as localized to those economies, thus causing only temporary concerns for emerging market issuers in general.

External factors. The strong global recovery from the financial crisis has had an important, positive impact on capital market flows to developing countries. Rapid growth in the United

---

**Table 2.7 Indicators of external vulnerability of developing countries and selected developing regions (percent)**

<table>
<thead>
<tr>
<th>Region and indicator (ratio)</th>
<th>1996</th>
<th>1997</th>
<th>1998</th>
<th>1999</th>
<th>2000a</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All developing countries</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Short-term debt to total debt</td>
<td>54.3</td>
<td>52.2</td>
<td>46.9</td>
<td>45.3</td>
<td>46.5</td>
</tr>
<tr>
<td>Reserves to short-term debt</td>
<td>138.4</td>
<td>130.8</td>
<td>164.2</td>
<td>187.7</td>
<td>203.6</td>
</tr>
<tr>
<td><strong>East Asia and Pacific</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Short-term debt to total debt</td>
<td>61.1</td>
<td>53.4</td>
<td>45.2</td>
<td>43.1</td>
<td>44.3</td>
</tr>
<tr>
<td>Reserves to short-term debt</td>
<td>127.0</td>
<td>126.7</td>
<td>233.2</td>
<td>328.5</td>
<td>377.9</td>
</tr>
<tr>
<td><strong>Latin America and the Caribbean</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Short-term debt to total debt</td>
<td>52.4</td>
<td>53.2</td>
<td>49.4</td>
<td>46.8</td>
<td>47.1</td>
</tr>
<tr>
<td>Reserves to short-term debt</td>
<td>116.4</td>
<td>106.4</td>
<td>104.4</td>
<td>105.3</td>
<td>104.4</td>
</tr>
</tbody>
</table>

a. Short-term debt and total debt are as of September 2000.
Box 2.6 Limited contagion from Argentina and Turkey

The spread of adverse investor sentiments can sharply limit developing country access to international capital markets and threaten the stability of the global financial system. In late 2000 and early 2001, financial upheaval in Argentina and Turkey raised once again a concern that those national crises may spread to other countries.

In Argentina, slow progress in reducing the fiscal deficit, the large and growing external debt burden, questions about the credibility of the fixed exchange rate regime given prolonged slow growth and high unemployment, and political conflicts over economic policies caused worry in international capital markets. In Turkey, concerns were raised over the real appreciation of the currency under a crawling peg exchange rate-based stabilization program, increasing current account deficits, slow progress in privatization, and stubborn inflation.

In the face of large capital outflows, rising domestic interest rates, dwindling access to capital markets, and the possibility of credit downgrades, both countries sought emergency funding from the International Monetary Fund (IMF) and took internal measures to reduce their external vulnerability and restore investor confidence. An IMF supplemental reserve facility ($7.5 billion) was arranged for Turkey by early December, and funding for Argentina ($40 billion) was announced later that month. While full-blown crises were averted at that time, Turkey faced a second crisis in February 2001 and the crawling peg exchange rate regime had to be abandoned. In mid-March, the IMF agreed to the framework for a new program of assistance.

Both Argentina and Turkey are major borrowers in international capital markets. The two countries accounted for about 20 percent of total market-based financing for developing countries in 1999–2000 and 10 percent of outstanding developing-country debt. This raised concerns about the impact of these countries’ economic difficulties on capital flows to developing countries in general. However, spillovers from these crises were limited. In part, this reflected the nature of the crises. “First-generation” crises arise when a country’s economic fundamentals are evidently weak, and contagion to other countries is then rare. “Second-generation” crises are based not on a specific weakness but arise when a country’s fundamentals are in a “zone of vulnerability”; these crises, by causing panic, are more closely associated with contagion to other countries.

Both Argentina and Turkey, market perceptions of weakness in country fundamentals were at the source of the crises. During the first Turkish crisis in late 2000, the cutting off of a mid-size bank from borrowing in the domestic market caused it to liquidate its securities portfolio and hence triggered a squeeze in interbank liquidity that was unexpected in its severity; there was some danger, therefore, that the crisis would spread. IMF-led packages and, in the case of Turkey, measures to ease the liquidity crunch, streamlining of banking regulations, and the government’s liability management had a calming effect on markets. Following the second crisis, a depreciation of close to 30 percent against the dollar brought about a degree of renewed stability.

States, economic recovery in most emerging markets, and the high rate of growth in trade have increased both the demand for new capital flows and their supply, as countries are perceived as more creditworthy.

Continued aversion to risk and high volatility due to the strong influence of psychological factors are reflected in a number of market indicators. Market liquidity has remained low in both debt and foreign exchange markets since the East Asian and Russian crises (Borio 2000). Turnover is significantly lower, especially, but not only, in emerging market securities, and bid-ask spreads are higher. The continued aversion to risk suggests that
the memory of the financial crisis has not faded. At the same time, the high volatility in U.S. stock markets and the high rate of default in the U.S. corporate sector have contributed to concerns. 12 The rest of this section discusses three factors that have traditionally had a bearing on capital flows to emerging markets: movements in interest rates, risk sentiment (as indicated by the price of debt to corporate borrowers), and volatility in stock market prices. In addition, recent changes in the laws and institutions that govern debt restructuring may have had an important precedent that will have ripple effects on bond issuance by emerging markets. Nevertheless, the predicted dire consequences of irreversible damage to market access and a contagious rise in the spreads on other emerging market bonds have not come to pass.

The debt restructurings were implemented through bond exchanges. Bondholders redeemed existing bonds for new bonds promising a smaller aggregate stream of repayments in present value terms. In each case a “sweetener” was used to induce the exchange. Before the restructuring, the high probability of default had significantly lowered the market price of the bonds. The debtor government, by offering the new bonds at a higher-than-market price, induced a speedy exchange (see Lipworth and Nystedt 2000). In the event, the market price of the bonds rose even further after the exchange, thus providing a handsome gain for many investors.

Although these bond exchanges appear to have balanced the interests of debtors and creditors, they may not offer a long-term solution to the problem of debt restructuring. The ability to provide sweeteners rested on what may have been an excessive decline in prices preceding the exchange. More important, a new development since then has strengthened the hands of creditors. One creditor was able to sue the government of Peru and receive full payment on a coupon due. The likelihood of successfully suing a sovereign had until then been seen as small because the ability to attach sovereign assets is limited. However, the creditor was able to intercept certain external payments that Peru was making and lay a claim on those payments (see Lindenbaum and Duran 2000). The implications for future sovereign debt restructuring are potentially serious. Holdout investors (those who do not agree to the terms of a bond exchange) now may be able to credibly threaten to stake a claim to payments intended for those who have agreed to the bond exchange.

Box 2.7 Implications of sovereign debt defaults

Ecuador, the Russian Federation, and Ukraine recently defaulted on their outstanding bonds, in the first sovereign bond defaults since the mid-1930s. Defaults occurred both on Brady bonds (bonds issued in exchange for restructured commercial bank debt) and on eurobonds. Pakistan did not default, but existing bonds were restructured with a new repayment schedule that implied some debt forgiveness. These defaults may be part of the reason why debt flows to developing countries have failed to recover, and they represent important precedents that will have ripple effects on bond issuance by emerging markets.

In 1997–99 rising U.S. interest rates were associated with a fall in the spreads on emerging market debt. This largely reflected the countercyclical monetary policy pursued by the U.S. Federal Reserve, which had lowered interest rates to sustain economic activity during the financial crisis, just as emerging market spreads were rising. The relationship between U.S. interest rates and primary spreads (spreads charged on newly issued bonds) followed a similar pattern (Eichengreen and Mody 1998). The more traditional relationship was restored over the past year, when an increase in policy interest rates, coupled with rising demand for funds and heightened risk perceptions, boosted short-term market rates and contributed to a rise in spreads.

Increased concern over risk may have contributed to constraints on capital market flows to developing countries. One indicator of market sentiment is the return that investors demand on U.S. market spreads, as reflected in the EMBI. The Mexican crisis is sometimes attributed to the rapid rise in U.S. interest rates in 1994 (panel A of figure 2.12).

However, in 1997–99 rising U.S. interest rates were associated with a fall in the spreads on emerging market debt. This largely reflected the countercyclical monetary policy pursued by the U.S. Federal Reserve, which had lowered interest rates to sustain economic activity during the financial crisis, just as emerging market spreads were rising. The relationship between U.S. interest rates and primary spreads (spreads charged on newly issued bonds) followed a similar pattern (Eichengreen and Mody 1998). The more traditional relationship was restored over the past year, when an increase in policy interest rates, coupled with rising demand for funds and heightened risk perceptions, boosted short-term market rates and contributed to a rise in spreads.
corporate debt. Panel B of figure 2.12 shows the patterns over time of swap spreads, which measure the difference in yields between superior-quality corporate and U.S. Treasury securities, and high-yield spreads, which measure the difference in yields between below-investment-grade corporate ("junk") bonds and Treasury securities. Both spreads rose sharply at the time of the Russian default, as investors retreated from high-risk assets. Swap spreads fell in 1999 as the global recovery
gathered steam and financial market conditions eased, but they again increased significantly over the past year and are near their highest levels in the 1990s. The same is true of spreads on junk bonds.

Since junk bonds are close substitutes for emerging market assets, both are affected by changes in investors’ sensitivity to risk. For many years, junk bonds have traded at lower spreads than emerging market bonds with the same ratings, perhaps because of the greater possibilities for diversification in the junk bond market. Moreover, as Caballero (2000) has noted, emerging market liquidity has tended to dry up just when it was most needed—in times of crisis, when bond spreads fluctuate wildly and market-making becomes impossible. However, emerging market spreads are now slightly lower than spreads in the junk bond market. This may reflect temporary factors, particularly the fact that certain important countries in the EMBI—Mexico, the Russian Federation, and the República Bolivariana de Venezuela—have benefited from the recent oil price rise.

The volatility of U.S. stock market prices has had an important impact on stock markets in developing countries, and hence on portfolio equity flows. Periods of volatility in the U.S. stock market have been exactly matched by high volatility in emerging stock markets (panel C of figure 2.12). Estimates of correlations in levels differ depending on the time period under consideration. In some periods of high volatility the correlations in weekly returns have been high. Even when the correlations have been low, the evidence suggests that emerging stock markets respond to U.S. stock markets with a small lag. Thus, in effect, market movements match relatively closely.

These trends are not surprising. Technology stocks now play a dominant role in most emerging markets, and movements in technology stock prices in developing countries have been closely related to movements of technology stock prices in the United States. Thus investors who seek to place their money in emerging markets today are not likely to get the diversification benefits they may have achieved in earlier years. For this reason, equity flows have been guided less by diversification motives and have been narrowly concentrated in a few countries that appear to offer high returns (see the discussion above on trends in equity flows).

Forecasts of capital market inflows to emerging markets

Capital market flows are projected to rise moderately over the next few years, according to results of an econometric model that takes into account the determinants of capital market flows discussed above, among others. The forecasts are based on both global and domestic determinants of flows. Global factors include U.S. industrial production, U.S. interest rates, the U.S. swap and high-yield spreads (as proxies for a measure of risk aversion), and the EMBI. Factors local to the recipient country include the level of domestic credit, movements in output and prices, movements in short-term interest rates and stock prices, the country’s credit rating, and foreign exchange reserves as a percentage both of imports and of short-term debt.

The forecast model uses the vector autoregressive technique, which allows for lagged interactions between capital inflows and the domestic factors that influence them. These embedded lags permit the joint forecasting of capital flows and the domestic factors. Global factors are forecast independently, and their evolution influences the forecast of capital flows into a country, but the capital flows of an individual country do not influence the forecast of the global factors. With respect to the global factors, the projections make the following assumptions, among others. It is assumed that the EMBI will decline gradually to around 600 by the end of 2003; that the U.S. high-yield spread will remain at about 800 basis points until then; that U.S. industrial production will grow at an annual rate of 3 to 4 percent over the forecast period, after a slowdown in early 2001; that the U.S. short-term interest rate will moderate at around 4 percent; and that the spread between U.S. long-term and short-term interest rates will narrow to less than 300 basis points by the end of 2003.

Following the significant increase in flows in 2000, capital flows are expected to increase at the more modest rate of 7 percent per year through 2003 (table 2.8). This trend reflects several underlying factors, including the momentum of flows, changes in global conditions, and changes in economic performance in emerging markets. Global factors driving this forecast include the expected slowdown of the U.S. economy, combined with declines in U.S. interest rates and the moderation in the EMBI since its recovery in late 2000. Momen-
tum also plays an important role in the forecasts for 2001. The sharp fall in capital flows in 1998, which continued into 1999, led capital flows to fall considerably below the trend for growth in production and trade. Although all three forms of capital market flows are expected to increase over the next three years, the projected rise in equity flows is particularly sharp. Since equity flows in the past have generally been extremely low and probably below the equilibrium level, the forecast surge in this category of flows may represent a degree of catch-up to a level from which growth will then be more moderate.

For Asia, gross flows are expected to decline slightly in 2001 because of the region’s continued current account surpluses (or only modest deficits), high level of reserves, and expected increase in domestic credit. But with sustained economic recovery, demand for international capital is projected to increase significantly in 2002 and 2003. Flows to Latin America are projected to rise strongly in 2001 but remain flat over the next two years. The projections for developing Europe and Central Asia are volatile and difficult to interpret, given the recent history of volatility in the region. In Africa the growth of capital flows is fueled principally by the rise in GDP growth and improved prospects for South Africa.

Underlying these regional projections are highly differentiated country performances. On the domestic side, increases in capital flows forecast by the model are almost always associated with forecasts of increasing credit ratings and stock prices, and stable or declining ratios of short-term debt to reserves. Such countries are also typically forecast to experience stable or moderately rising consumer prices—a strong forecast upsurge in the consumer price index is associated with declining capital inflow forecasts. The level of domestic credit and domestic industrial production show mixed signals, although the majority of countries with increasing inflow forecasts also have increasing domestic credit and industrial production forecasts. The economic intuition seems clear: higher inflows result in an accumulation of reserves and a rise in stock prices, a restoration of market confidence, and an upward revision of the credit rating, which induces further capital inflows into the country.

The reported projections are relatively robust to changes in assumptions about specific global financial variables. For example, if U.S. interest rates were to rise temporarily, with other global factors unchanged from the base scenario, capital flows would drop immediately and then recover after six to eight months to resume their original trend. The initial decline in capital inflows, following a rise in interest rates, causes the domestic currency to depreciate, making the export sector more competitive and leading to an improvement in credit ratings. These factors then generate a resumed inflow of foreign capital, which leads to an accumulation of reserves, which attracts further inflows.

By contrast, shocks to global real factors have a greater impact on capital flows. If growth in U.S. industrial production is assumed to be zero (3 to 4 percentage points per year less than in the base case), projected flows to emerging markets drop

Table 2.8 Actual and projected capital market flows to principal developing countries (billions of dollars)

<table>
<thead>
<tr>
<th>Region or type of flow</th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
<th>2001a</th>
<th>2002a</th>
<th>2003a</th>
</tr>
</thead>
<tbody>
<tr>
<td>31 principal developing countries</td>
<td>156.4</td>
<td>148.5</td>
<td>204.4</td>
<td>218.4</td>
<td>240.1</td>
<td>249.2</td>
</tr>
<tr>
<td>Latin America and the Caribbean</td>
<td>79.0</td>
<td>65.0</td>
<td>77.5</td>
<td>95.7</td>
<td>97.8</td>
<td>98.4</td>
</tr>
<tr>
<td>Asia</td>
<td>49.9</td>
<td>62.2</td>
<td>101.5</td>
<td>98.9</td>
<td>117.1</td>
<td>121.6</td>
</tr>
<tr>
<td>Europe and Central Asia</td>
<td>20.5</td>
<td>6.0</td>
<td>7.7</td>
<td>6.1</td>
<td>3.5</td>
<td>3.7</td>
</tr>
<tr>
<td>Middle East and North Africa</td>
<td>4.0</td>
<td>6.7</td>
<td>4.1</td>
<td>4.9</td>
<td>5.6</td>
<td>6.1</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>3.0</td>
<td>8.6</td>
<td>13.7</td>
<td>13.0</td>
<td>16.1</td>
<td>19.2</td>
</tr>
<tr>
<td>Bond financing</td>
<td>67.5</td>
<td>62.1</td>
<td>70.4</td>
<td>80.0</td>
<td>81.1</td>
<td>79.9</td>
</tr>
<tr>
<td>Equity placement</td>
<td>7.0</td>
<td>20.2</td>
<td>35.5</td>
<td>36.6</td>
<td>43.5</td>
<td>49.1</td>
</tr>
<tr>
<td>Bank lending</td>
<td>82.0</td>
<td>66.1</td>
<td>98.5</td>
<td>101.8</td>
<td>115.5</td>
<td>120.1</td>
</tr>
</tbody>
</table>

Note: Given the data requirements involved, the regional aggregates are based on flows to 31 individual emerging markets that accounted for more than 80 percent of private capital flows to all developing countries in 1999. Thus total flows are less than the aggregate flows to all emerging markets reported in table 2.6.

a. Projected.

Source: Capital DATA Bondware and Loanware, and World Bank staff calculations.
substantially and continue to decline without any sign of recovery. For Asia, flows decline by about 10 percent compared with the base case. The impact of a slowdown in U.S. industrial production is significant because the United States and industrial countries in general are an important destination for developing countries’ exports.

In this regard the recent boost in U.S. productivity may explain a significant part of the recovery in capital inflows to emerging markets over the past 12 months—and any slowdown in that productivity growth may portend more difficult market access for emerging market borrowers.

This discussion highlights two important facts about maintaining access to international capital markets. Domestic policies are critical: low inflation, adequate reserves, and an economic policy framework that maintains the confidence of investors are essential for continued access. At the same time, changes in financial and real developments in the global economy have a powerful impact. A recession in the industrial countries would likely lead to a sharp decline in developing countries’ access, even for countries with sound policies. Thus measures aimed at managing the potential volatility of capital flows are essential if developing countries are to reap their benefits (see chapter 3).

Notes

1. The inability to identify capital account transactions at the country level is reflected in a sizable capital account balance at the global level, which in principle should be zero. This global capital account discrepancy mirrors a similar discrepancy in the global current account, with aggregate import values exceeding exports (International Monetary Fund 2000a; Marquez and Workman 2000).

2. Although foreign investment receipts on account of privatization declined, the aggregate value of commitments is likely to increase in the year 2000 (see appendix 4).

3. Here we define private capital flows as the sum of gross capital market flows and foreign direct investment (FDI) (as in table 2.3).

4. For a discussion of capital controls, see World Bank, Global Development Finance 2000, chapter 5.

5. See chapter 3 and previous editions of Global Development Finance on the various benefits of FDI.

6. Transparency was measured by a composite index based on rankings for the level of corruption, law and order, bureaucratic quality, contract viability, and the risk of government expropriation of private assets, all taken from the International Country Risk Guide published by the Political Risk Services Group.

7. These data are from the United Nations Conference on Trade and Development, whose definition of developing countries differs somewhat from that used by the World Bank. The major differences are that the U.N. definition excludes South Africa but includes several of the higher-income economies of the Caribbean and the Middle East.

8. The reforms involved reducing taxes on mergers and acquisitions transactions, easing sectoral restrictions on foreign investment, and removing limits on the share of a company that foreigners may hold.

9. The discussion of trends in capital market flows in this section is based on commitments made by investors. For bond and equity flows, these commitments typically translate almost immediately into disbursements; however, for bank lending, commitments are often disbursed over more than a year.

10. An index of sovereign eurobond spreads from 34 emerging market economies using a different weighting scheme (where the weights are constructed from the face value of eurobonds outstanding as of the end of 1998) also indicates that borrowing costs for these economies have remained higher in the last two years than in the period before the Russian crisis.

11. Care has to be taken in interpreting these simple averages, however, since they do not account for country factors, the type of borrower (sovereign or private), or debt maturity.

12. However, see Barth and Zhang (1999) for the contrary view that there is no evidence that mutual funds made significant withdrawals from Asia during the crisis.

13. Moody’s raised Mexico’s rating to investment grade in February 2000, but this action did not prompt upgrades by other rating agencies.

14. This table shows short-term debt by remaining maturity (the Bank for International Settlements definition). This is different from the “original maturity” concept used by the World Bank. See Global Development Finance 2000 (World Bank 2000) for further clarification of these definitions. The share of short-term debt in total debt of developing countries as defined by the World Bank also declined, from 20 percent in 1997 to 16 percent in 2000.

15. The share of claims with maturities between one and two years on developing countries reported by Bank for International Settlements banks rose from 4.7 percent to 7.8 percent during the same period. This is consistent with the decline in the average maturity of new bonds and syndicated loans noted above.

16. High spreads on corporate borrowings are often used as a general measure of risk sentiment and as a reflection of “flight into quality.” However, trends during the past year did not always reflect a generalized increase in risk perception but also reflected idiosyncratic increases in risk (most important, an increase in default rates in the technology and media sectors).

17. Part of the increase in spreads is due to the decline in long-term Treasury rates following the retirement of U.S. government debt.

References

The word processed describes informally reproduced works that may not be commonly available through libraries.


______. Various years. *World Development Indicators*. Washington, D.C. 