

Private Capital Flows to Developing Countries

LAST YEAR'S *GLOBAL DEVELOPMENT FINANCE* described a sharp fall in long-term financial flows to all developing countries in 1998, reflecting a sharp decline in capital market flows—bank loans, bonds, and portfolio equity flows—to these countries following the crises in East Asia and Russia. Amid uncertainty surrounding the outcome of Brazil's currency crisis, the report painted an uncertain near-term outlook for 1999, with a further decline in private capital flows likely as the credit ratings of many developing countries were lowered. Foreign direct investment, however, was expected to remain resilient. Events since then have broadly confirmed this assessment.

The overall trends and prospects in private-source external financing for developing countries described in last year's report reflect a sharp change from the mood of the early and mid-1990s, when booming inflows of private capital eased external financing constraints on development and provided greater access to improved technology and markets. The generalized retreat in private capital flows that followed marked a return to a much more cautious stance regarding the benefits and the risks of global capital markets for developing countries.

This year's report continues to underscore that shift in emphasis:

- Net long-term flows from international capital markets to developing countries as a group continued to fall in 1999, from the low levels reached in 1998 to levels last seen in the early 1990s. Ten of the 27 countries that account for more than 90 percent of private flows to all developing countries (and over 90 percent of GDP but 65 percent of total developing coun-

try population) suffered deep financial crises in 1997–99. But whereas the decline in flows in 1998 reflected a generalized retreat from emerging markets, the decline in flows in 1999 masked a more complex story. Some borrowing countries (and their private sectors) continue to be severely constrained in their access to capital markets. Among them are a few countries in deep crisis or facing difficult macroeconomic or political challenges. At the same time, however, perceptions of risk in several countries appear to be improving, and their access to capital markets is returning to more normal levels, as reflected in substantial declines in interest rate spreads. Nevertheless, a few of the countries whose access to capital markets has improved (for example, Korea and Thailand) have also experienced a sharp decline in their demand for funds, which contributed to the decline in overall flows in 1999.

- By contrast, foreign direct investment (FDI) has remained buoyant and continues to help boost the transfer of technology to developing countries and strengthen their links with international markets. FDI is now the largest single source of capital flows to developing countries. However, the growth in FDI has slowed from its rapid pace during the early 1990s despite some rise in privatization transactions (particularly in Latin America) and increased mergers and acquisitions activity in the crisis countries. FDI is expected to increase moderately over the next few years as the global economy continues to recover from the financial crises of the late 1990s. Nevertheless, the rate of growth of FDI is expected to remain below that in the 1990s, when several developing countries reduced re-

restrictions on foreign investment, growth in developing countries was more robust, and rapid increases in demand in industrial countries encouraged export-oriented FDI.

- Capital market flows are expected to recover gradually in the beginning years of the new century. The supply of funds to the riskier emerging market borrowers is likely to remain restrained for the next few years in the wake of the recent crises. Nevertheless, credit rationing should ease for many borrowers as their economies continue to recover. The demand for finance in the crisis countries should rise as well, although the expected, relatively slow recovery in investment will likely continue to constrain flows to some extent. Flows are likely to remain volatile, and individual countries will face substantial uncertainty in their ability to maintain access to funds.
- Some have proposed that private credit ratings be used to determine the amount of capital that banks must hold relative to their lending to developing countries. These proposals need to be carefully reviewed. The evaluation of sovereign credit risk inevitably involves subjective judgments concerning governments' willingness to repay. Credit ratings have tended to react to changes in creditworthiness rather than accurately predict them; hence their use in determining capital requirements could accentuate the procyclical nature of capital flows to emerging markets. In any case, credit agencies today cover only a small fraction of emerging market borrowers, particularly in the private sector.

Recent trends in capital flows

The recent financial crises have led to a sharp decline in net long-term capital flows to developing countries (table 2.1). Net long-term flows totaled \$291 billion in 1999, down \$28 billion from the year before and \$53 billion below the peak in 1997.¹ Sharp declines in private debt and portfolio flows from international capital markets in both 1998 and 1999 account for virtually all of this decline. Net debt flows from the international capital markets fell to only \$19 billion in 1999, compared with \$103 billion at their 1997 peak. This reflects a sharp retrenchment in lending by international banks, more modest falls in net bond flows (see below), and also a fall in demand for funds. Official flows also fell slightly from their high level of 1998, when large financing packages were extended to several crisis countries. In sharp contrast to these developments, net FDI flows stabilized in 1998 and rose by \$21 billion in 1999. At the same time, net short-term flows continued the decline initiated with the financial crisis. Outflows on developing countries' short-term debt equaled \$24 billion in 1999 (excluding the impact of debt restructuring) after an outflow of \$31 billion in 1998. In East Asia, short-term outflows have totaled \$54 billion over the past two years, and in Latin America, \$20 billion.

Flows from international capital markets

The drop in net private flows to developing countries in 1999 was driven by a collapse in gross flows from international capital markets (bond issues, syndicated bank lending, and portfolio

Table 2.1 Net long-term flows to developing countries, 1990–99

(billions of U.S. dollars)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999 ^a
Total	98.5	124.0	153.7	219.2	220.4	257.2	313.1	343.7	318.3	290.7
Official flows	55.9	62.3	54.0	53.4	45.9	53.9	31.0	39.9	50.6	52.0
Private flows	42.6	61.6	99.7	165.8	174.5	203.3	282.1	303.9	267.7	238.7
International capital markets	18.5	26.4	52.2	99.8	85.7	98.3	151.3	133.6	96.8	46.7
Debt flows	15.7	18.8	38.1	48.8	50.5	62.2	102.1	103.4	81.2	19.1
Bank lending	3.2	5.0	16.4	3.5	8.8	30.4	37.5	51.6	44.6	-11.4
Bond financing	1.2	10.9	11.1	36.6	38.2	30.8	62.4	48.9	39.7	25.0
Other	11.3	2.8	10.7	8.7	3.5	1.0	2.2	3.0	-3.1	5.5
Equity flows	2.8	7.6	14.1	51.0	35.2	36.1	49.2	30.2	15.6	27.6
Foreign direct investment	24.1	35.3	47.5	66.0	88.8	105.0	130.8	170.3	170.9	192.0

Note: Net long-term resource flows are defined as net liability transactions or original maturity of greater than one year. Although the Republic of Korea is a high-income country, it is included in the developing country aggregate since it is a borrower from the World Bank.

a. Preliminary.

Source: World Bank Debtor Reporting System.

Box 2.1 Limitations on long-term flows data

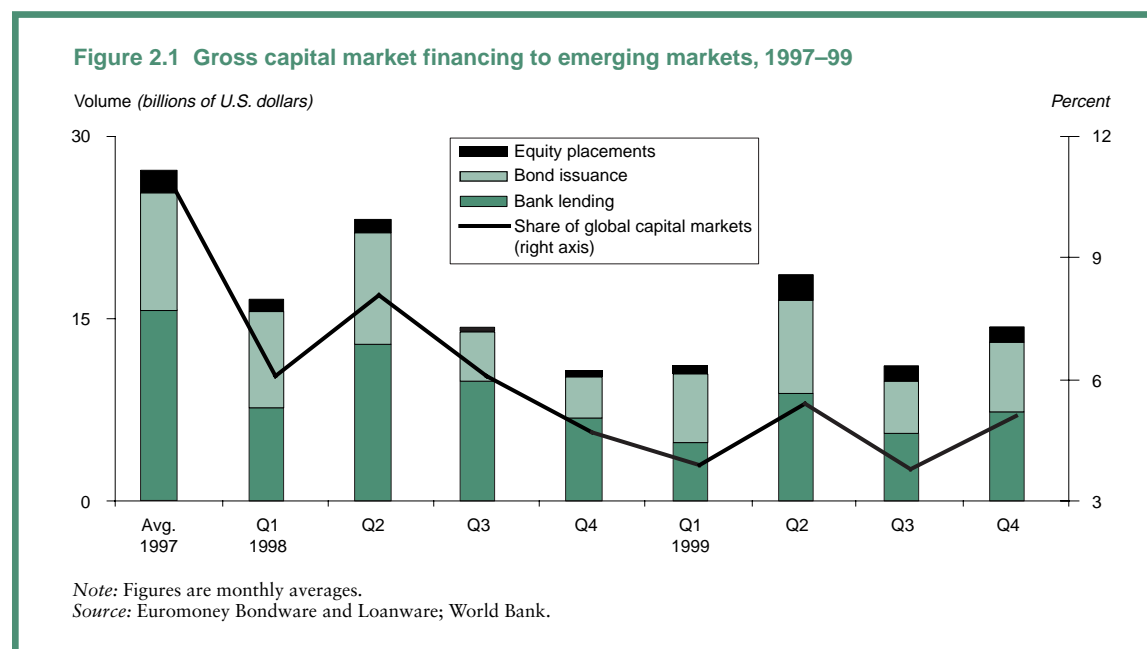
The data on net long-term flows are subject to some limitations. First, data on private flows to developing countries are available only on an annual basis, although certain components (for example, loan commitments and bond issues) are reported more regularly. The annual data on net flows cannot fully reflect sudden breaks in market financing (as occurred after the Russian debt moratorium, for example). Second, the quality of estimates for the most recent year varies enormously by category. Fairly accurate information is available on both a net and a gross basis for official flows, and, from market sources, on gross disbursements from bond markets and commercial banks. Debt repayments are calculated from information on the terms of debt contracts, although actual payments may vary from what the contracts specify. Data on portfolio equity flows are particu-

larly difficult to estimate. Data on international equity placements are readily available, but estimates of direct foreign purchases in developing country stock markets are based on reports from the exchanges themselves and differ in accuracy and coverage. Third, the data include only long-term liability transactions, that is, gross disbursements minus repayments. Capital outflows such as net lending or acquisition of assets abroad by developing country residents are not reflected. This results in a substantial difference between net long-term flows as shown in this report and net external finance as shown in the balance of payments (see below). Other sources of this discrepancy include short-term flows, time lags in data reporting, discrepancies in reporting, cash versus accrual accounting, difficulties in accounting for derivatives, and inadequate data from offshore financial centers.

equity). Gross flows averaged only \$11 billion in the first quarter of 1999 (figure 2.1), the period that witnessed the sharp devaluation in Brazil. This figure is just above the low point reached in the fourth quarter of 1998 following the Russian crisis. Flows recovered slowly over the course of the next three quarters, but for the year as a whole

they were 14 percent below 1998 levels and half the peak level reached in 1997.

However, unlike 1998, when investors withdrew from emerging markets as a group, the decline in flows in 1999 was sharply differentiated by borrower-country circumstances. Investors continued to retreat from several of the riskier bor-



rowers. These included countries in severe financial crisis and those facing particularly difficult macroeconomic or political challenges. Losses incurred by banks since mid-1997 through unhedged exposures in emerging markets have had significant valuation effects on banks' balance sheets, which has drastically reduced their appetite for high-risk assets. Institutional investors, an important source of capital in the mid-1990s, have reduced their participation in the markets, and even some of the higher risk macro and relative-value hedge funds have shifted their investments to industrial country markets.² Perceptions of increased risk were further supported by concern over the international policy on burden sharing, by debt servicing pressures on some Latin American countries, by the overhang of corporate debt in Korea, and by the possibility of technological glitches resulting from the year 2000 (Y2K) computer bug.

At the same time, several countries have seen an improvement in market access as they have recovered from the financial crisis. A few of the East Asian crisis countries have experienced a return in investor confidence, but the continued low level of investment and reductions in the degree of leverage by several corporations in the wake of the problems experienced during the crisis have kept their external borrowing limited. Syndicated bank lending to emerging markets had historically been

dominated by East Asian borrowers until 1997. The almost 65 percent fall in bank lending to the region in 1998 largely reflected creditors' decisions to cut back on new lending. In 1999, however, the gross flows to the East Asian crisis countries (Indonesia, Korea, Malaysia, and Thailand) rose only marginally to \$29 billion, compared with \$71 billion in 1997, largely because of low demand. The fall in gross flows to these four countries between 1997 and 1999 accounted for about one quarter of the total fall in flows to emerging markets.

The regional distribution of flows does not fully reflect the distinction between supply-constrained and demand-constrained countries, but it does give some indication of how both factors combined to reduce flows to emerging markets over 1998–99. Gross flows to East Asia peaked in mid-1997 and then plummeted as investors withdrew from the crisis countries (figure 2.2). The recovery of flows to this region was limited in 1999, despite the strong output recovery (GDP growth averaged 5.5 percent in the East Asian crisis countries in 1999), as the demand for funds remained low. Flows to Latin America and to developing countries in Europe and Central Asia remained high through mid-1998 but then dropped steeply with the investor response to the Russian debt moratorium. Although the rate of descent has slowed significantly (and flows to Europe and Central Asia actually began to recover in late 1999), several of these countries continue to experi-

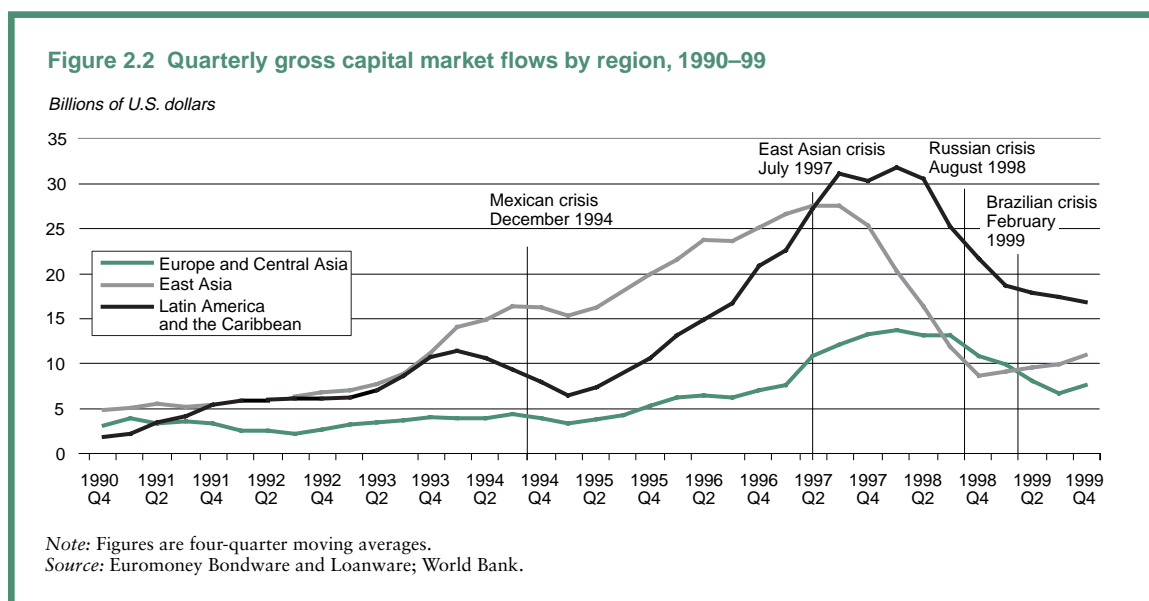
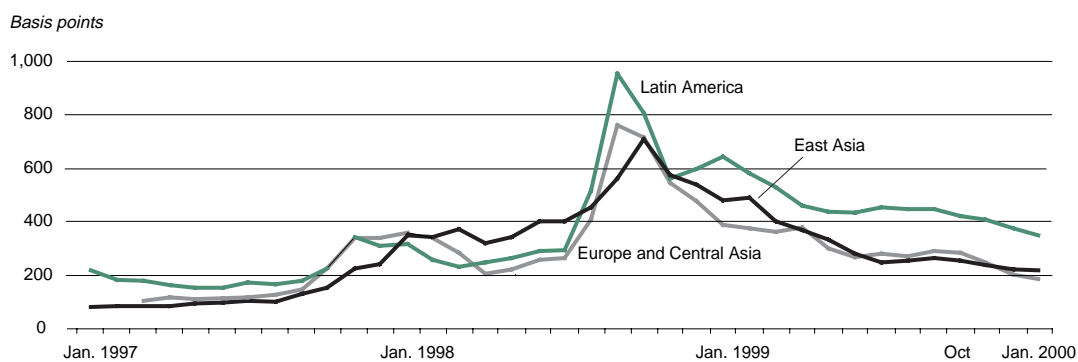


Figure 2.3 Regional secondary market spreads on international bond issues

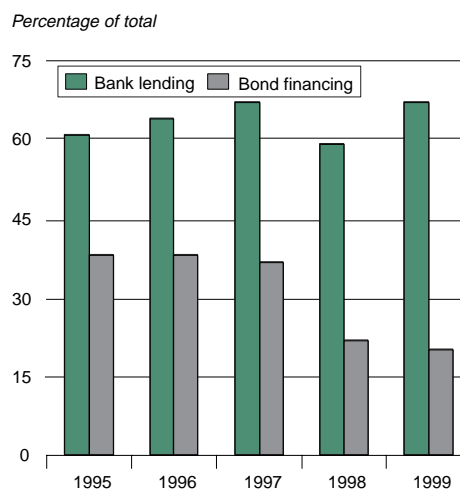
Source: Datastream; Bloomberg; World Bank.

ence difficulties in obtaining funds from international capital markets.

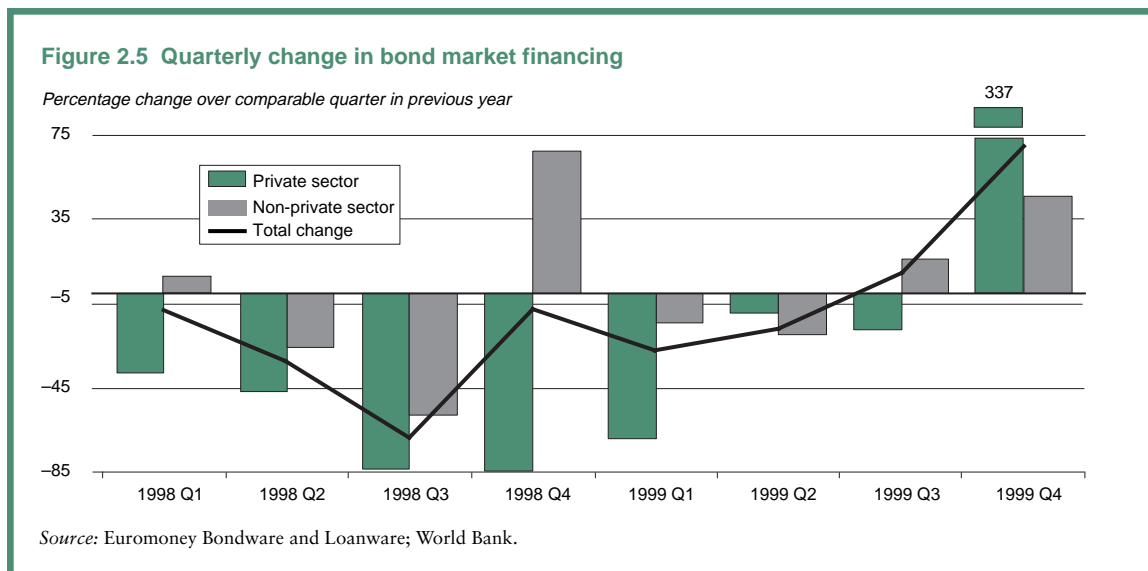
The differences in access of major developing country borrowers to the capital markets are also seen in the data on secondary market spreads. Investors' heightened risk perceptions as a result of the financial crises were reflected in the rise in secondary market spreads on Brady bonds from 500 basis points at the end of 1997 to over 1,100 basis points in late 1998. Almost every major sovereign borrower experienced a rise in secondary market spreads on its outstanding bonds from December 1997 to December 1998. Spreads on Brady bonds rose further in the wake of the Brazilian crisis, to over 1,400 basis points, among the highest levels since the Mexican crisis.³ Average spreads on benchmark international bonds from Latin America also rose, from 580 basis points in November 1998 to almost 700 basis points in January 1999, although premiums outside the region rose by less than in Latin America.⁴

By contrast, secondary market spreads for most borrowers narrowed over the course of 1999 from the high levels of the early part of the year, but the extent of improvement differed significantly by country, indicating a greater degree of differentiation by investors after the generalized retreat from emerging markets in 1998. Spreads dropped sharply in all major East Asian borrowers through January 2000, further evidence that reduced demand is driving the low level of flows to the region. Nevertheless, spreads on Indonesian debt remained over 500 basis points and spreads in the region remain well

above the admittedly low levels of late 1996. In Latin America, spreads on Brazilian Eurobonds have narrowed sharply (to 540 basis points in mid-January 2000 compared with 1,220 basis points in January 1999) and spreads on Mexican debt have fallen to about 200 basis points, while spreads on the debt of Argentina, Colombia, and the Republica Bolivariana de Venezuela are 140 to 300 basis points above the levels of late 1996. Eastern European borrowers also have seen a fall in spreads

Figure 2.4 Share of private sector borrowers in bank lending and bond financing

Source: Euromoney Bondware and Loanware; World Bank.

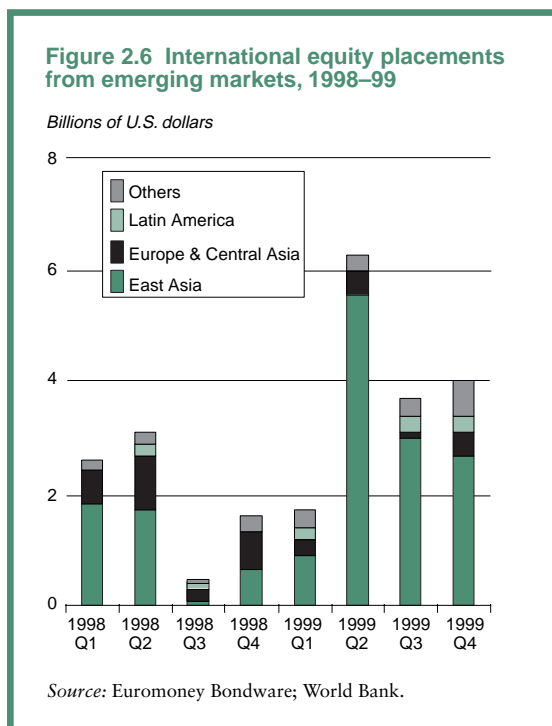


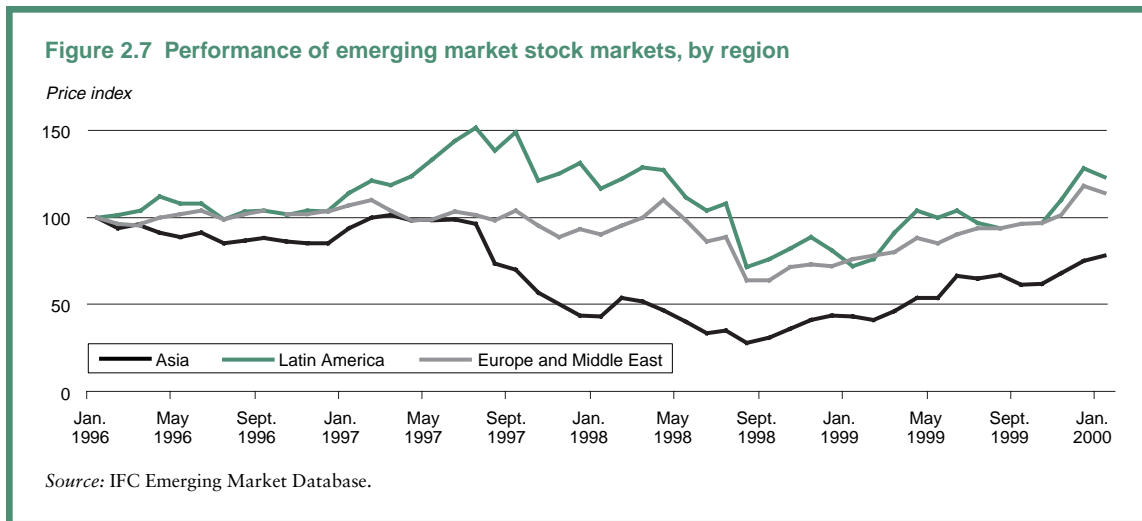
since late 1998. Countries that remain in severe crisis (Ecuador, Pakistan, Russia, and Ukraine) continue to have spreads that vary from one to several thousand basis points.

The decline in gross flows in 1999 was accompanied by a massive shift in finance from the pri-

ivate to the public sector, which in most cases provides a ceiling to credit ratings in the private sector. The volume of bond issues by public sector borrowers in developing countries dropped by 46 percent from 1997 to 1999, but flows to private sector borrowers plummeted to only one-third of their 1997 level. Fully 60 percent of bond finance went to sovereign issues in 1999, compared with 40 percent in 1997. Thus, the effects of the capital flow reduction on economic activity, and especially private investment, were direct and rapid.

Unlike bank and bond flows, the volume of gross international equity placements from emerging markets recovered strongly in 1999, to more than double the 1998 level, but remained at only 70 percent of the 1997 level. This surge in equity flows reflected the sharp recovery of equity markets in emerging market economies in 1999 from the low levels of late 1998. Stock market prices in East Asia rose by 71 percent on average from December 1998 to December 1999, and those in Latin America by 57 percent (figure 2.7). Nevertheless, market conditions were less robust later in the year in several countries, and several issues out of Asia were postponed whereas others were offered at discounts. Equity flows were primarily supported by large privatization transactions in East Asia, which accounted for 65 percent of total placements in 1999. Apart from privatization, investments for new capitalization showed little increase over 1998. International equity placements



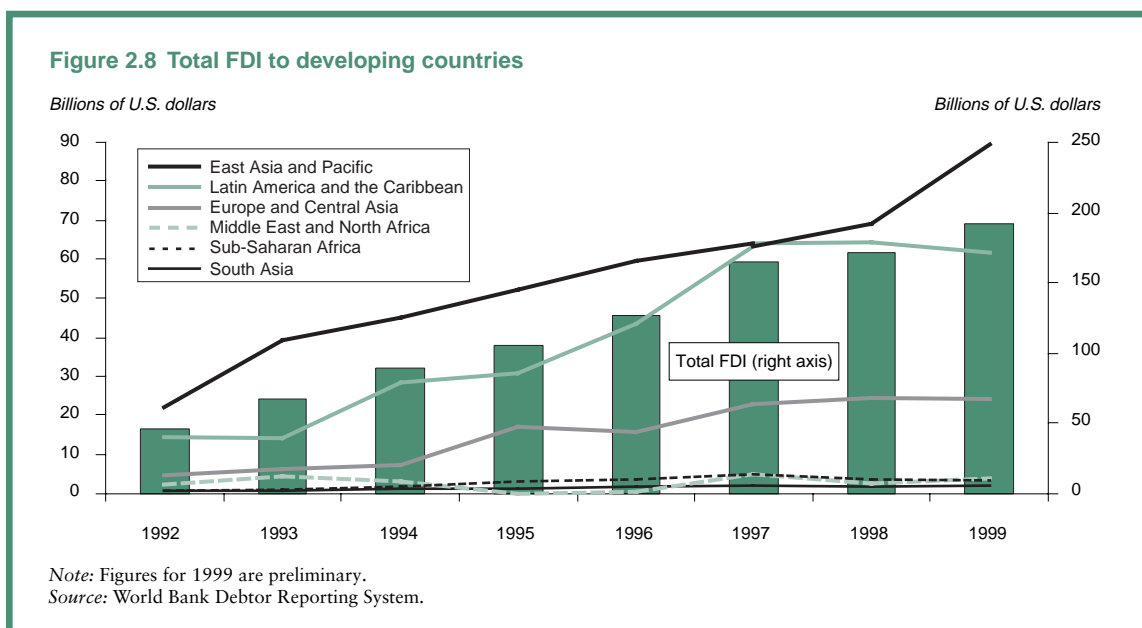


from Latin America bordered on nonexistent. International equity placements in the aggregate continued to account for only 10 percent of gross capital market flows.

Foreign direct investment

FDI flows have remained resilient over the past two years, despite the series of financial crises, although their rate of increase has slowed considerably from that of the mid-1990s. FDI flows to developing countries are estimated at \$192 billion

in 1999, equal to 2.8 percent of GDP, up from \$171 billion in 1998 (figure 2.8). About half of the increase in 1999 is accounted for by one-time payments under Argentina’s privatization program. The modest rise in FDI flows is in sharp contrast to the experience of the mid-1990s, when net FDI inflows jumped from 0.8 percent of developing country GDP in 1991 to 1.8 percent in 1994, and then rose to 2.7 percent by 1997. Slower growth prospects in developing countries and increased uncertainty in the global economy have discour-



aged foreign investors from continuing this rapid increase in new long-term commitments.

The greater resilience in FDI flows than of capital market flows in the face of the financial crises is partly due to the fact that FDI is more responsive to long-term growth trends than to short-term changes in financial returns. FDI flows are also determined in part by access to natural resources and human capital, which were not immediately affected by the crises. Moreover, currency depreciations in the crisis countries reduced their production costs and asset values in foreign currency terms.⁵ This, together with opportunities for profitable corporate restructuring through mergers and acquisitions in crisis-affected countries, provided additional incentives to foreign investors.⁶ Nevertheless, FDI flows are also subject to slow-down or reversal in the event of economic difficulties. For example, increased uncertainty with economic crises may cause investors to reduce new commitments, accelerate affiliates' repayments of debt to home offices, or take offsetting positions through derivatives. In the latter case, the decline in investors' exposure to the country is not even recorded in the data on FDI flows. In a limited number of countries, investment financed by joint ventures' external borrowing may be incorrectly classified as FDI, and thus may tend to behave similarly to capital market flows. But such cases make up only a very small fraction of total FDI flows to developing countries.

Since the mid-1990s, FDI has become the largest component of external financing to developing countries. Its growth has been facilitated by the liberalization of many developing economies and the growth of global trade and output in a context of rapidly falling costs of transport and communications. The share of developing countries in global FDI flows grew rapidly in the 1990s, from 24 percent in 1991 to 36 percent in 1997, before declining to an estimated 25 percent in 1998. The decline in that year was due to large increases in mergers and acquisition activity in industrial countries (UNCTAD 1999). FDI plays a significant role in economic growth of the host country when accompanied by sound domestic policies and greater openness (Dasgupta and Imai 1997).⁷ It also tends to crowd in rather than displace other investments, (Bosworth and Collins 1999), and it promotes growth even more through spillovers of technol-

ogy, skills training, increased domestic competition, and increased exports.

FDI flows are important in both low- and middle-income countries. Indeed, the average ratio of FDI to GDP in 1997–99 was almost the same in the two groups, 2.7 percent in middle-income countries and 2.6 percent in low-income (table 2.2). But the latter number reflects the influence of China, the largest developing country recipient of FDI. Excluding China, FDI equaled only 1 percent of low-income countries' GDP in 1997–99, in large part because of the very low level of FDI to South Asia (0.7 percent of GDP). By contrast, FDI to the low-income countries in Sub-Saharan Africa was relatively robust, just under 1.5 percent of GDP. FDI to Sub-Saharan Africa has in the past been driven by access to raw materials. In 1990–92, FDI equaled 1.3 percent of GDP in low-income Sub-Saharan African countries that export minerals or oil, and only 0.2 percent of GDP in countries that export agricultural products. However, by 1997–99, several agricultural exporters had achieved very substantial increases in FDI, which had risen to 1.2 percent of GDP.

The rise in FDI to agricultural exporters has been associated with improvements in policy regimes in many of these countries. Countries that substantially improved the stability of macroeconomic policies, opened their economies to external trade, and strengthened their legal and institutional frameworks experienced a significant rise in the ratio of FDI to GDP. The agricultural exporters with better-than-average policy performance increased the ratio of FDI to GDP to 1.4 percent in 1997–99, while the countries with worse-than-average policies increased the FDI ratio to only 0.9 percent.⁸ This result is consistent with a recent study showing that strengthening the legal framework governing FDI can have a significantly positive impact on FDI (Gastanaga, Nugent, and Pashamova 1998).

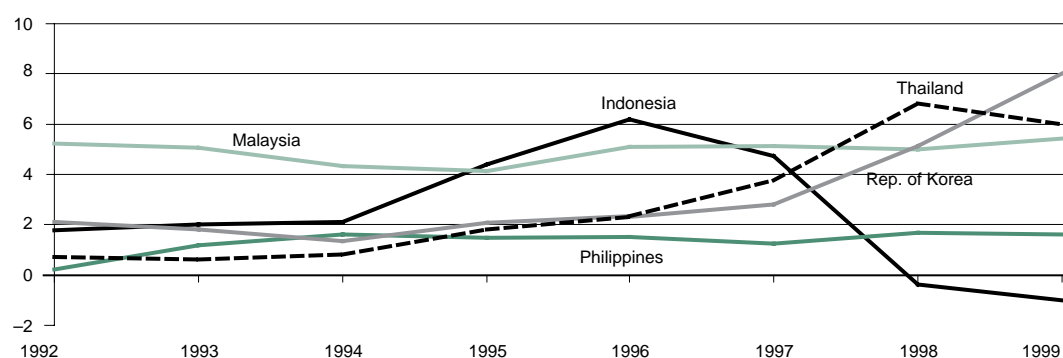
Table 2.2 Foreign direct investment in the 1990s
(percentage of GDP, average over period)

	1990–92	1995–96	1997–99
Middle income	0.7	1.5	2.7
Low income	0.9	2.9	2.6
Excluding China	0.5	1.3	1.0

Source: World Bank.

Figure 2.9 FDI to East Asian crisis countries

Billions of U.S. dollars



Note: Figures for 1999 are preliminary.
Source: World Bank Debtor Reporting System.

FDI in developing countries is dominated by the construction of new facilities (greenfield projects), unlike in industrial countries where FDI has largely taken the form of mergers and acquisitions (M&A) between existing entities. Nevertheless, cross-border M&A transactions rose in the 1990s in developing countries. The share of developing countries in global majority-owned, cross-border M&A sales increased from 5 percent in 1991 to 11 percent in 1998. The share of M&A sales in total FDI flows to all developing countries rose from 7 percent in 1991 to 28 percent in 1998 (UNCTAD 1999). Much of this M&A activity in developing countries involved privatization of state enterprises. Privatization revenue through FDI transactions contributed \$67 billion to FDI flows in developing countries in 1998, accounting for 21 percent of their total FDI (see appendix on privatization transactions).

Net external finance and capital outflows

Despite the sharp rise in capital inflows to developing countries over the 1990s, the amount of external finance actually channeled to domestic investment and consumption declined from \$89 billion in 1991 to only \$24 billion in 1999 (table 2.3).⁹ Thus a growing share of capital inflows has financed outflows of capital from developing countries, although the size of these outflows is difficult to measure precisely, given the poor quality of the data.¹⁰ Capital outflows appeared to have been particularly important in reducing net external finance to Sub-Saharan Africa and, in 1997–98, to East Asia and Russia. The impact of higher capital outflows in the crisis countries on domestic demand was actually greater than might be suggested by the ex post balance of payments data. Without the

Table 2.3 Net resource flows and net external finance to developing countries, 1991–99

(billions of U.S. dollars)

	1991	1992	1996	1997	1998	1999 ^a
Net long-term resource flows	124.0	153.7	313.1	343.7	318.3	290.7
Net short-term flows	20.1	38.2	42.9	20.4	-47.6	-11.2
Total net flows (liabilities)	144.1	191.9	356.0	364.1	270.7	279.5
Net external finance	88.8	111.6	175.8	106.9	71.1	24.0
Current account deficit	51.1	68.3	85.6	80.1	41.4	-10.0
Change in reserves	37.7	43.3	90.2	26.8	29.7	34.0
Capital outflows and errors and omissions	-55.3	-80.3	-180.2	-257.2	-199.6	-255.5

a. Estimated.

Source: World Bank Debtor Reporting System and staff estimates; IMF, *International Financial Statistics*.

Box 2.2 FDI flows during the global crisis: lessons from four countries

The financial crises of 1997–99 underlined the importance of both a favorable policy environment and stability in source countries for continuing access to FDI flows. Poland and Mexico have maintained high levels of FDI thanks to strong economic policies, and they have also benefited from integration with industrial country neighbors. By contrast, China has achieved very rapid growth but has seen FDI flows slow with economic distress in source countries in the region and continuing difficulties in China's policy environment for FDI. Vietnam has seen a sharp decline in FDI flows due to failure to reform key administrative constraints on foreign investment.

Poland and Mexico have been highly successful in attracting FDI inflows despite the financial crises (see figure). In Poland, the transition to a market economy, the liberalization of policy toward foreign investment (Ladyka 1997), rapid export-led growth, and declining inflation led to an upsurge in FDI flows, particularly after the country's agreement with the London Club in October 1994 provided large-scale debt relief. In Mexico, FDI responded to a move toward more market-friendly policies initiated in the 1980s. FDI to Mexico has also benefited from the North American Free Trade Agreement, and FDI to Poland was buoyed by the country's prospects for admission to the European Union.

FDI to China may have added as much as 17 percent to GDP in the last few years (Sun 1998; Dees 1998). However, the economic difficulties facing source countries in East Asia and continued problems with the policy environment in China itself led to a 12 percent fall in FDI flows in 1999. New FDI commitments in January through October 1999 were 21 percent below their levels in the same period of 1998. Foreign investors continue to face significant requirements for exports, localization, and technology transfer, as well as restricted access to domestic markets, particularly in the nontradable sector (EIU 1999). China has announced further measures to ease constraints on foreign investment, and its potential entry into the World Trade Organization is also expected to boost FDI flows. Still, further policy reforms may be necessary to maintain the high level of FDI flows that China experienced in the mid-1990s.

FDI in Vietnam has increased since the mid-1980s as a consequence of high economic growth, macroeconomic stability, and some easing of restrictions on FDI (World

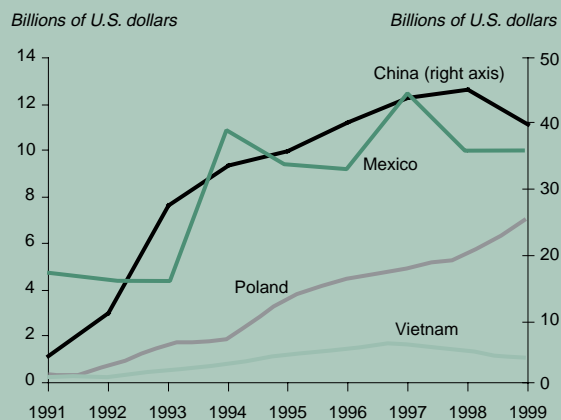
Bank 1993). However, actual disbursements have remained well below expected levels; only about 14 to 30 percent of the total licensed in foreign-invested projects over the 1988–95 period was actually disbursed. FDI peaked at \$2 billion in 1997 and then fell to only \$1.1 billion in 1999 (approved FDI projects fell by 46 percent in January to August 1999 from the same period in 1998) as a result of little progress in eliminating time-consuming and expensive administrative processes. In July 1999 the government began to take steps to improve the investment environment, including the elimination or reduction of licensing fees, cuts in telecommunications and electricity rates, a simplification of hiring procedures, and the granting of new tax incentives. Stronger privatization measures and improved physical and administrative infrastructure would appear to be key to resuscitating FDI flows. In addition, a reduction in trade barriers would help ensure that FDI flows are used efficiently. More than 70 percent of foreign investment is directed to sectors with effective protection rates above 50 percent, which has led to excessive investment in inefficient and overly capital-intensive activities (Poverty Working Group 1999).

sharp rise in interest rates (which depressed domestic demand), the large real currency devaluations, and (in some countries) controls on outflows, capital outflows would have been even larger.

These averages conceal marked differences among countries. Further insight into the impor-

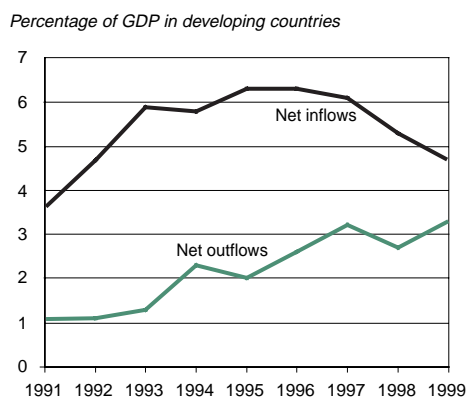
tance of capital outflows can be seen by separating out China, which appears to have experienced particularly large outflows. China far exceeds all other developing countries in its acquisition of external financial assets, in part because of transactions with its territory of Hong Kong. China also

FDI flows: China, Mexico, Poland, and Vietnam



Source: World Bank Debtor Reporting System.

Figure 2.10 Net capital inflows and outflows in all developing countries (excluding China), 1991–99



Source: World Bank.

is the largest developing country source of FDI, although this in part reflects round-tripping to take advantage of FDI incentives (World Bank 1997b). Estimates of capital outflows are extremely uncertain, however, and may reflect various inconsistencies in the balance of payments accounts rather than actual transactions. Excluding China, the shifts in capital outflows (that is, the rise through 1997 and the subsequent fall) for developing countries roughly match the parallel rise and fall in capital inflows over the period (although the estimated change in inflows and outflows varies considerably in individual years, particularly in the 1999 estimates). One possible explanation for this relationship is that capital outflows and inflows in many cases reflect the same transaction, as individuals borrow abroad to on-lend externally. Another is that a rise in capital inflows (absent offsetting policies such as sterilization) tends to reduce domestic interest rates or cause the currency to appreciate, thus encouraging capital outflows, or both.

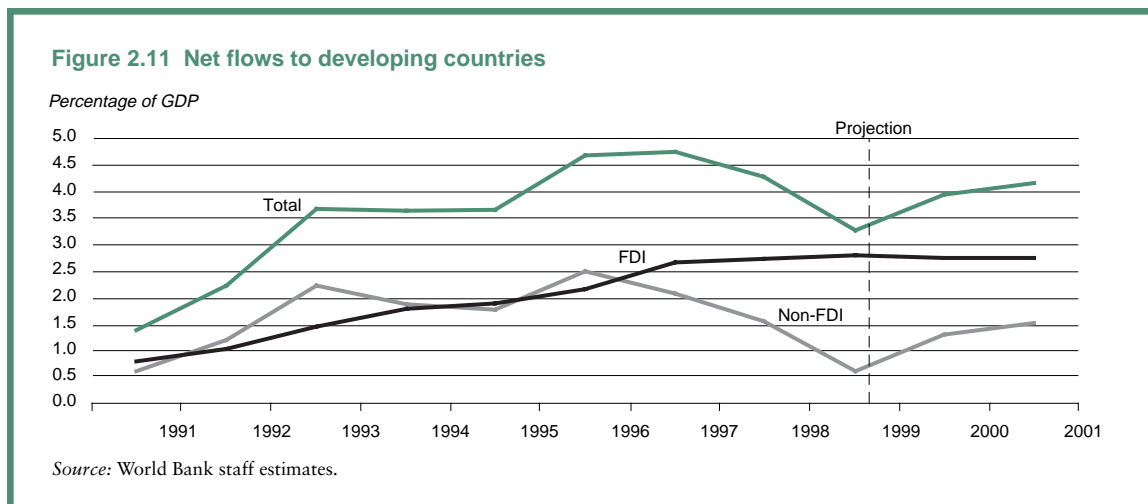
Forecasts of net long-term flows

Continued concern over the risks of lending to some emerging markets, the slow recovery of demand in the crisis countries, and more moderate increases in FDI flows than in the past are likely to result in only a gradual recovery of net private

flows in 2000–01. Total net private capital flows are projected to average about 4 percent of developing country GDP in 2000–01, above the 3.3 percent of GDP level of 1999 but well below the peak of 4.8 percent in 1997 (figure 2.11).¹¹ Forecasting private flows is extremely difficult, given the frequency of sharp turning points in the data and changes in market sentiment that are not necessarily explicable in terms of underlying economic trends. The forecasts presented below, which are partly based on a model incorporating the “pull” and “push” factors widely discussed in the literature, should be treated as indicating likely trends in the data, absent any further, dramatic surprises. (Box 2.3 describes the methodology used in developing the private flows forecasts.)

Capital market flows

It is estimated that capital market flows (bonds, bank loans, and portfolio equity) will increase to 1.5 percent of developing country GDP in 2000–01, compared with 0.6 percent in 1999 (figure 2.11). This increase principally reflects the expected progress toward normalization of developing countries’ access to international capital markets. Flows will remain below the 1995–97 boom (as a share of GDP), which may reflect better use of capital and thus be supportive of long-term growth (see box 2.4). It is assumed that another major crisis will not materialize and that the continuing recovery in developing countries will encourage renewed investor confidence. Nevertheless, lending to the riskier borrowers will continue to be constrained, in part by memories of the market turbulence of 1997–99. Flows to Eastern Europe, traditionally a relatively small borrower, may accelerate with strong economic performance and the increased number of potential entrants to the European Union (EU), only somewhat offset by the continuing and severe problems affecting recovery in Russia. In East Asia, which accounts for a substantial proportion of capital market flows to developing countries, the recovery of demand in the crisis countries is expected to be moderate, as the growth in investment is expected to be slow despite the strong cyclical recovery. Flows should recover in Latin America, the other major borrowing region. Mexico and Uruguay, where secondary market spreads are relatively low, should have relatively easy access to loans. Brazil, too, should retain substantial access to the markets. On the other hand, the crisis in Ecuador, continuing



slow growth in Argentina, uncertainties surrounding policy in the Republica Bolivariana de Venezuela, and the political conflict in Colombia will continue to limit flows to those countries.

Foreign direct investment

FDI to developing countries should continue to increase in 2000–01, roughly in line with growth of their GDP. FDI is directed at servicing the local or regional markets by, for example, crossing tariff barriers, reducing transportation costs, and taking advantage of lower costs of production. Thus, the prospects for host-country growth are an important determinant of FDI. Developing countries' GDP growth is expected to increase to 4.6 percent in 2000–01, compared with 3.1 percent in 1999, and this rise should provide some support for continued growth in FDI flows.

The acceleration of world import demand should also help to boost export-oriented FDI flows. In recent years, the fall in transportation and communication costs and the lowering of trade and other barriers to cross-border investments have increased the share of FDI directed toward global production networks—evident, for example, in the rising volume of exports that represent intrafirm transactions. Thus FDI is increasingly seen as determined by global demand, and hence is highly correlated with world trade.¹³ Empirical support for the link between FDI and exports can be found in country studies of Austria (Pfaffermayr 1996) and Japan (Wakasugi 1994; Kawai and Urata 1998; Goldberg and Klein 1997; Bayoumi and Lipworth 1998) as well as the United States (Lipsey and Weiss 1981;

Eaton and Tamura 1994). In the immediate aftermath of the financial crises of 1997–99, world trade growth slowed to 4.2 percent per year (from an average of 6.9 percent from 1990 to 1997), and this may help explain the recent slowdown in FDI flows. World trade is expected to accelerate to more than 6 percent in 2000–01 with the acceleration of world GDP, and this, too, will support a renewed increase in FDI flows. Continued progress toward the integration of Eastern European countries into the EU will also encourage increased FDI to that region.

Other factors will tend to constrain FDI flows over the next two years, however. Mergers and acquisition activity in the East Asian crisis countries is likely to slow as exchange rates and asset prices recover, although this may be balanced by increased investor confidence over continued growth in these economies. Privatization activity in Latin America and Eastern Europe is also expected to decline after the high levels in 1998–99.¹⁴ On balance, FDI to developing countries is projected to remain at 2.8 percent of developing country GDP in 2000–01, roughly the same as the peak level reached in 1999. This would represent a break from the rapid growth of FDI during the 1990s, when growth in GDP and world trade was more robust. FDI increased relative to developing country GDP in every year of that decade, rising from 0.8 percent in 1991 to 2.8 percent in 1999. An improved policy environment toward foreign investment, improved infrastructure, and greater access to domestic as well as regional markets in developing countries may enhance the effects predicted by the model, leading to some further increase in FDI flows.

Box 2.3 Model-based forecast of capital market flows

The table below provides a quantitative estimate of the impact of risk aversion and cyclical factors on capital market flows in 1999 and the forecast period (2000–01). Only about one-third (0.6 percentage point of developing country GDP) of the decline in capital market flows in 1999 (from the 1996–97 average) can be attributed to the specific factors used in the model. Of this amount, about half is attributable to higher risk aversion and a quarter to persistence in flows from the earlier period; the rest results from slightly higher interest rates and stronger growth in industrial countries and weaker growth in developing countries. Of the two-thirds of the decline in capital market flows that the model does not explain, some 40 percent is probably due to the collapse of domestic demand in the East Asian crisis countries. The remainder may be due to a rise in risk aversion that is not captured by the dummy variable or a demand decline in other large crisis countries undergoing recession, such as Russia, or both. Changes in several of the factors used to forecast capital market flows are expected to support a modest rise in flows over 2000–01. The forecast assumes that developing countries avoid a major crisis over the next two years, that developing country GDP growth rises relative to industrial country growth, and that demand from the East Asian crisis countries increases. Together, these influences are projected to increase capital market flows to 1.5 percentage points of GDP, higher than in 1999 but well below the 2.3 percent average for 1996–97.

The model results are based on a blend of cyclical factors; structural factors such as global trade integration, technological innovations, and deregulation; and abrupt

changes in creditworthiness due to external shocks, the availability of new information, and changes in investors' appetite for risk. This approach builds on a series of articles, including World Bank 1997a; Calvo, Leiderman, and Reinhart 1993; Taylor and Sarno 1997; Chuhan, Claessens, and Mamingi 1993; Montiel and Reinhart 1997; and Claessens, Oks, and Polastri 1998. In the first stage, a global pool of flows to all developing countries is determined by investors in the industrial countries, taking into account conditions in the global financial markets and in developing countries as a whole. (This is done because developing country assets are not easily substitutable for industrial country assets given their different risk characteristics.) This pool is then allocated in the second stage to country-specific developing countries depending on a second set of country-specific determinants of such flows. One difficulty with this approach is that the anticipated rise in capital market flows in 2000–01 reflects a very differentiated story, with some countries remaining supply constrained and others seeing a slow recovery of inflows due to slow growth of demand. Since the model begins with a forecast of aggregate flows, it may miss important changes in flows that reflect individual country characteristics.

The first stage of this model is estimated for FDI, capital market flows, and official flows to all developing countries from 1978 to 1997. The explanatory variables include industrial country GDP growth, real interest rates (the London interbank offered rate adjusted for inflation) and GDP growth in developing countries (cyclical factors); privatization and world trade (structural factors); the presence

Decomposition of changes in capital market flows

(percentage of developing-country GDP, except where stated otherwise)

Factors explaining changes in capital market flows	Level, 1996–97 average	Level, 1999	Effect of change from 1995–97 to 1999 on capital market flows	Forecast average, 2000–01	Effect of change from 1999 to forecast average on capital market flows
Risk aversion and crisis effects	0 ^a	1 ^a	–0.32	0	0.32
Real LIBOR (percent per year)	3.0	3.3	–0.02	3.7	–0.03
Developing-country growth rate (percent per year)	4.4	3.1	–0.08	4.6	0.10
Industrial-country growth rate (percent per year)	2.5	2.7	–0.02	2.7	0.00
Persistence (lagged dependent variable)	1.77	1.55	–0.16	1.22	–0.23
Estimated capital flows	1.92	1.31	–0.61	1.47	0.15
Actual capital flows	2.3	0.61	–1.69		0.86
Unexplained residual	0.38	–0.70	–1.08		0.70
Of which: fall in demand in Asia	0.9	0.5	–0.4	0.7	0.2
Other unexplained ^b	–0.52	–1.20	–0.68	–0.7	0.5

a. The index for crisis in developing economies is set equal to 1 during crisis and 0 otherwise.

b. Other factors may include additional risk aversion not captured in the model or a fall in demand in other crisis countries.

Source: World Bank staff estimates.

Box 2.3 (continued)

or absence of financial crisis; and the lagged dependent variable to capture the persistence of flows.¹² The results track the turning points, cycles, and the volatility of FDI and non-FDI flows quite well. The persistence of capital market flows is evident in the size of the coefficient (close to 1) and positive sign and significance of the lagged dependent variable. Despite the short time series, statistical tests confirm that the ordinary least square estimates are consistent.

In the second stage, each type of capital flow is assumed to be a function of total capital flows to all devel-

oping countries and several country-specific creditworthiness indicators, including the current account balance (lagged one year), income per capita, and GDP growth. We also assume that each type of capital flow is influenced by the other types. This second-stage model is estimated using panel data for 37 developing countries for the 1978–97 period. This model should be viewed as a preliminary approach to forecasting private flows. Substantial scope exists for improving the specification, the variables selected, and the data used for estimation.

The impact of sovereign credit ratings on capital flows

The decline in lending to emerging markets has been accompanied by an increased role for credit rating agencies in determining developing countries' cost of funding and access to capital.¹⁵ Recently, the Basel Committee on Banking Supervision has suggested relying (in part) on these ratings when determining banks' capital requirements for exposure to sovereign and commercial borrowers (Bank for International Settlements [BIS] 1999). This proposal responds to criticisms that the present risk-weighted capital requirements set forth by the BIS do not adequately reflect differences in the riskiness of different borrowers. For example, sovereign loans to all non-OECD (Organisation for Economic Co-operation and Development) borrowers carry the same capital requirement (relative to the size of the loan), despite the widely varying risk in sovereign lending to different developing countries.

Greater attention to differences in risk levels could indeed improve the regulation of sovereign lending, but the proposed reliance on credit agencies' ratings raises several issues. Given the lack of a legal framework for enforcing claims, the evaluation of sovereign credit risk inevitably involves difficult and inherently subjective judgments about governments' willingness to repay. Most recently, the agencies have been criticized for failing to spot the warning signs of recent crises. More generally, because credit ratings have tended to react to changes in creditworthiness rather than accurately predict them, their use in determining capital requirements could accentuate the procyclical nature of capital flows to emerging markets. Finally, credit agencies cover only a small fraction of current emerging market borrowers, and their coverage of private sector borrowers is particularly thin. Depending on how the proposal is implemented, the reduction in access of nonrated borrowers (as

Box 2.4 Improvements in uses of foreign capital

Capital market flows to developing countries are expected to recover only gradually over the next two years, but, insofar as this reflects a more efficient use of capital in borrowing countries (in part due to adjustments after the crisis), a lower level of flows than during the 1995–97 boom is not necessarily bad. Some of the uses of capital during the previous boom did not contribute to growth, including the financing of high budget deficits, asset market booms, and imprudent lending associated with low-quality investments. In some countries, political uncertainties and concerns about overvalued exchange

rates also prompted large capital outflows that coincided with periods of surging borrowing from abroad. Reforms and adjustments forced by the crisis should lead to better use of foreign capital, for example, through improvements in fiscal policies, correction of overvalued exchange rates, and improved corporate governance and financial regulations. But the same crisis that has forced these adjustments and reforms has had large human costs and lingering economic costs: past accrued losses requiring bank recapitalization, higher fiscal costs, and distressed corporations.

banks shift to higher-rated borrowers) and the costs they would incur to obtain ratings could be significant.

How credit ratings for sovereign debt are determined

In assigning credit ratings to sovereign debt, credit-rating agencies assess the likelihood that the country in question will default on its debt service obligations. They view the ratings as a forward-looking estimate of the relative risks surrounding a government's ability and willingness to service its financial commitments according to the terms of the contract. Sovereign ratings are primarily based on publicly available information; the conventional belief that they are based on advance knowledge or superior information is questionable. These ratings are strongly correlated with credit spreads in the market, because market participants interpret this publicly available information similarly; however, this relationship is stronger for speculative grade issues than for investment grade issues (BIS 1998).

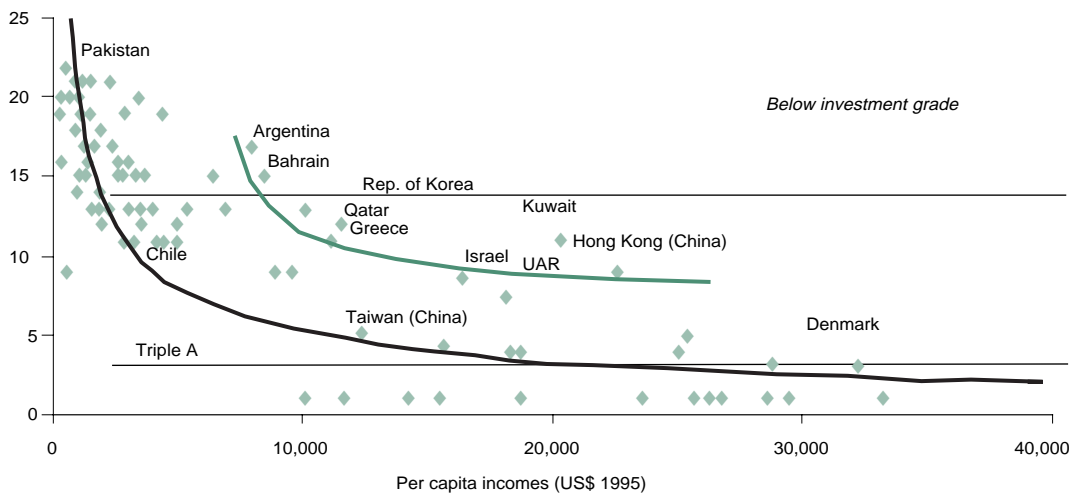
The major rating agencies do not employ specific statistical models to assess sovereign default risk.¹⁶ Their analyses are more subjective, based on both quantitative and qualitative criteria. They examine global factors that can influence a country's default risk and domestic determinants of ability

and willingness to pay. The ratings reflect an evaluation of a host of issues, generally divided into categories, including, for example, social and political issues, economic structure, fiscal and monetary policies, recent economic performance, and the size and structure of external debt (Standard & Poor's 1998). Willingness to pay is a qualitative issue, heavily dependent on political outcomes, and makes sovereign credit analysis far more complicated than corporate credit analysis.

Rating agencies report that they do not attach fixed weights to the economic and political variables used in determining a country's rating. They stress that analytical variables are interrelated and that the emphasis can change. However, empirical studies have identified a set of common economic variables that play a key role in determining credit ratings. In particular, sovereign credit ratings are closely related to GNP per capita (Cantor and Packer 1996). Dadush and Dasgupta (1999) find that the sovereign debt of more than three-fourths of 51 developing countries is rated below investment grade (that is, in the "junk-bond" category), whereas the debt of most mature industrial countries is rated in the safest category. Nevertheless, the relationship between income and rating category is not perfect. Several developing countries have investment grade ratings, while some

Figure 2.12 Credit ratings: selected countries

Credit ratings (1 = best; 25 = worst)



Source: Moody's Investor Service 1999.

higher-income countries, mostly oil exporters in the Middle East, Israel, Hong Kong (China), and Greece, appear to have special characteristics that raise their risk profile in the market despite their relatively high incomes.

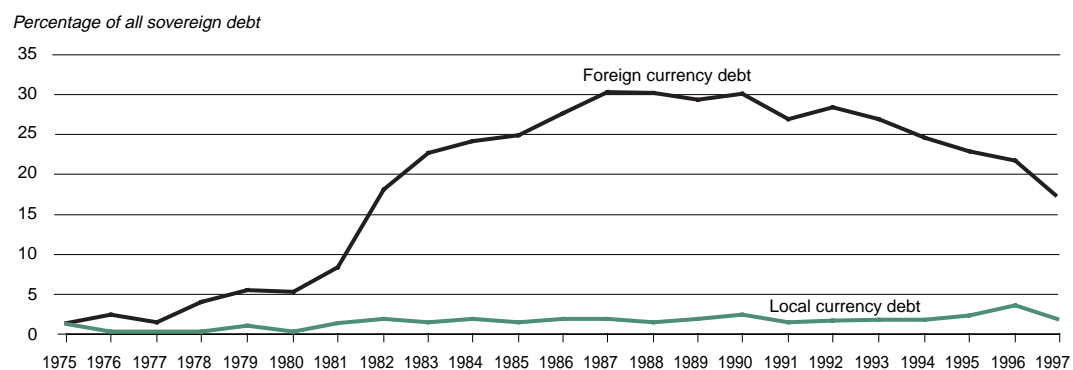
The historical record

It is difficult to evaluate the success of credit rating agencies in predicting defaults by developing country sovereigns. Rating of emerging market sovereign debt is a relatively recent phenomenon, and no sovereign bond issuer defaulted on foreign currency debts rated by rating agencies between 1975 and 1997.¹⁷ The last major round of sovereign defaults occurred in the 1980s—in the wake of the Mexican debt crisis in 1982—but most were by unrated sovereign borrowers. As a result, it is impossible to tell whether the differences among rating levels are empirically related to a higher probability of default. On the other hand, defaults on unrated debt have been frequent, indicating that the eligibility for a rating may have been a useful indicator of reduced likelihood of default. Figure 2.13 shows the share of unrated short- and long-term bank loans, privately placed debt issues, and unrated public bonds—most of them considered below investment grade—that have been in default since 1975.¹⁸ Also, there is a high negative correlation between the ratings of a corporate bond and the issuer's frequency of default, which demonstrates that credit ratings are useful indicators of the likelihood of default in the corporate sector.

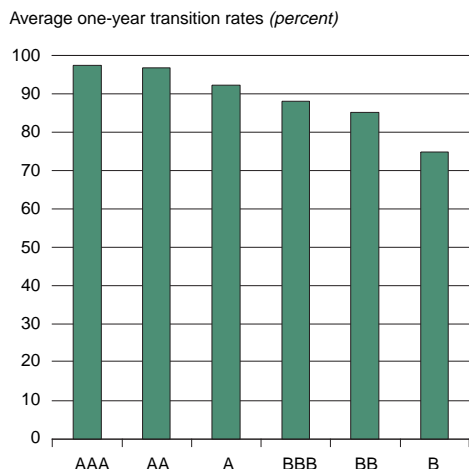
Sovereign ratings have been fairly stable historically, with the upgrades generally balanced by the downgrades (figure 2.14). However, the Asian crisis resulted in sharp downgrades of ratings for the countries involved. Thailand was downgraded by an average of four rating notches, Indonesia by an average of six, and Korea by an average of nine. Russia, too, experienced a sharp rating downgrade in 1998. Reisen and von Maltzan (1998) suggest that sovereign credit ratings are more reactive than preventive and that they lag rather than lead financial markets. The rating agencies have been criticized for being too lax in their initial ratings or too negative in their adjustments, or both. The agencies have vigorously defended their rating systems, although they did identify (either explicitly or implicitly) inadequacies in their rating methodologies prior to the crisis, and they acknowledge having learned from the recent crisis (BIS 1999). It should be noted that many official institutions undertake analyses similar to those by credit rating agencies (in terms of evaluating the strength of developing country policies and institutions with a view to judging credit risk), and most of these institutions also failed to foresee the East Asian crisis.

The recent downgrades may have had some role in the high volatility of spreads over the past few years. Figure 2.15 shows a close relationship between low credit ratings and volatility in spreads (as measured by the standard deviation of spreads between January 1996 and February 1999) on sovereign bonds. This relationship prevails even after controlling for income per capita, which proxies for

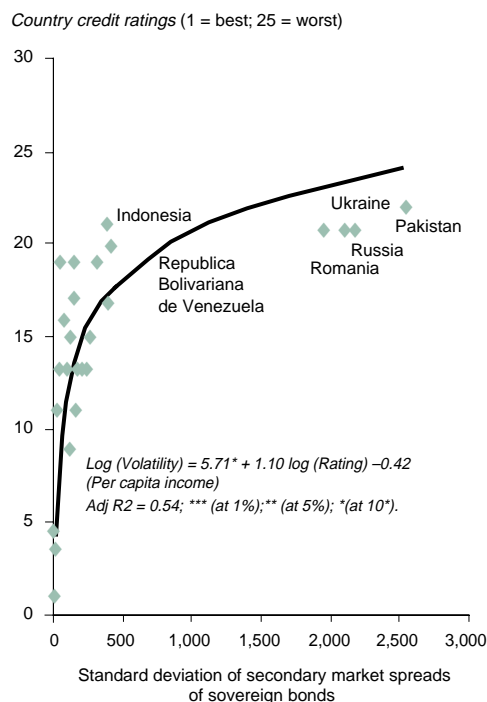
Figure 2.13 Sovereign default rates on unrated debts, 1975–97



Source: Standard and Poor's.

Figure 2.14 Sovereign rating stability, 1975–98

Note: Each bar is calculated as follows: $100 \times (1 - (\text{number of rating changes} / (\text{number of countries} \times \text{years covered})))$. For example, countries rated AAA at the beginning of the year changed their rating during that year less than 5 percent of the time.
Source: Standard and Poor's.

Figure 2.15 Credit ratings and spread volatility

Source: World Bank staff estimates.

other sources of volatility such as changes in the terms of trade and commodity dependence. Omitting the four countries currently in deep crisis (Pakistan, Romania, Russia, and Ukraine), which are also outliers in the sample, does not affect the results and indeed improves the significance of the regression. However, it is not clear whether this relationship is due to the independent influence of credit ratings, in part because it is unclear whether credit ratings add information that is not already known to the markets. The relationship between credit ratings and spreads may simply reflect greater volatility of spreads for less creditworthy borrowers. Ratings may have an independent influence on spreads if investors tend to herd on the basis of ratings announcements (OECD 1998). Cantor and Packer (1996) present evidence that positive ratings announcements tend to be followed by declines in bond yields, although they find no statistically significant relationship for negative ratings announcements.

Concerns have been raised about whether credit rating agencies are truly independent: their reliance on fees from borrowers seeking ratings could make agencies reluctant to downgrade

clients for fear of losing business. On the other hand, agencies have a strong incentive to maintain their reputations, as compromising standards would lead lenders to reduce the use of their ratings and thus ultimately reduce demand for ratings by borrowers. In support of this view, a Federal Reserve study found that “over the years, the discipline provided by reputational considerations appears to have been effective” (Cantor and Packer 1994). Nevertheless, current fee arrangements do increase the incentive for each rating agency to avoid downgrades if other agencies are not taking similar actions. Also, the incentive for agencies to engage in herd behavior is increased by the fact that following other agencies’ leads reduces the cost of analysis, which is a large part of the agencies’ cost base.

The use of credit ratings to determine capital requirements

Several issues thus should be considered before relying on credit-rating agencies to determine capital

requirements for bank loans to emerging markets. Credit ratings are based largely on publicly available information, which is presumably already captured in secondary market spreads. Credit ratings are lagging indicators, so that their use could amplify boom-bust cycles in lending to emerging markets and lead to herd behavior on the part of lenders.¹⁹ Indeed, the removal of the present regulatory restriction that institutions such as insurance companies and pension funds limit their investments to investment-grade borrowers might help smooth the boom-bust cycle in emerging market assets and stabilize investors' returns.

In addition, ratings cover a very small fraction of the borrowers currently in the market: not even the sovereign ratings are complete, and the coverage of private borrowers is much more limited. Implementation of the BIS proposal could either lead to a curtailment of capital flows to nonrated borrowers or require these borrowers to incur substantial costs to obtain ratings.

Notes

1. Other comparator reports (Institute of International Finance 1999; J.P. Morgan 1999; IMF 1999) use different definitions of flows and country classifications and thus report different levels of flows. However, all sources show a substantial decline in private flows from 1997 to 1999, ranging from \$84 billion to \$170 billion, compared with the \$68 billion reported in table 2.1. The compositional shifts are also in the same direction, suggesting a sharp decline in flows from international capital markets, with FDI flows relatively unchanged.

2. Hedge funds are collective investment vehicles, often organized as private partnerships with offshore residency for tax and regulatory purposes. Their legal status places few restrictions on their portfolios and transactions, leaving their managers free to use short sales, derivative securities, and leverage to raise returns and cushion risk. (IMF 1998). Macro hedge funds take positions on changes in global economic conditions and relative value hedge funds focus on arbitrage opportunities between securities.

3. Spread refers to the EMBI+ index of J.P. Morgan. One basis point equals one-hundredth of a percentage point.

4. Average spreads refer to benchmark international bonds of 20 major emerging markets. Spreads for Pakistan, Romania, Russia, and Ukraine have not been included in the sample because their extremely high levels distort the overall average.

5. In addition to reduced prices of imported materials, real manufacturing wages and property prices and rents fell significantly, as discussed in World Bank 1999a and World Bank country reports.

6. Short-term determinants of FDI are discussed in detail in World Bank 1999b. World Bank 1999a provides further discussions of corporate restructuring in East Asia.

7. World Bank 1999a provides a theoretical discussion and case studies of the benefits of FDI to the host country.

8. Policy performance is measured by an index developed at the World Bank. Each year, World Bank country economists rate, on a scale of 0 to 5, the countries they deal with for the quality of economic policies. Each country's overall rating is a weighted average of ratings for individual categories (macroeconomic policy, legal and regulatory framework, effectiveness of social programs, and so on).

9. Other sources report a similar decline in developing countries' combined current account deficit, although the levels are not strictly comparable with the estimates in this report because of differences in country classification.

10. See World Bank 1999b for a discussion of the data issues. Capital outflows are not directly reported, but rather are calculated as a residual in the balance of payments. Hence the measured level of capital outflows also includes various discrepancies and unreported transactions.

11. In nominal terms, these translate into forecast net long-term flows of \$285 billion and \$324 billion in 2000 and 2001 respectively, compared with \$221 billion in 1999. Forecasts from other sources also anticipate a modest recovery of net capital flows. These forecasts for net capital flows are consistent with the projections of gross flows presented in chapter 1.

12. The effects of persistency are also supported in virtually all financial markets (Cochrane 1999).

13. New trade and investment theories (Helpman 1984; Helpman and Helpman 1985; Grossman and Helpman 1989; Grossman and Helpman 1991) based on differentiated goods, imperfect competition, and falling barriers to cross-border production suggest that FDI and exports could be complements, and hence will rise together over time (Markusen 1983).

14. Other potentially significant explanations for FDI are not discussed here. For example, official flows are expected to act as a catalyst for private capital flows in developing countries with increasingly sound macroeconomic policies (World Bank 1997). They have had a positive impact on FDI in Central and Eastern Europe during the 1992–96 period (Claessens, Oks, and Polastri 1998).

15. Several of the issues discussed in this section are also reviewed in the IMF's *International Capital Markets 1999* (IMF 1999). This section draws on that study as well as other sources.

16. The rating agencies assign probabilities to risk factors for some dynamic emerging market countries. But they do not conduct rigorous scenario analysis and stress testing, and they rarely assign probabilities to specific risk factors and scenarios when assigning and monitoring ratings (IMF 1999).

17. However, there were defaults on rated foreign currency debt in Russia and Ecuador in 1999. To date, Indonesia, Pakistan, and Russia have defaulted on their unrated foreign currency debt.

18. The data do not include defaults by sovereigns on loans from other governments and their agencies. Sovereign loans in arrears from multilateral institutions (such as the

World Bank) are also not included. Finally, episodes of hyperinflation are not considered default on local currency debt, despite the fact that hyperinflation severely reduces the real value of domestic debt.

19. During a boom, improving ratings reinforce euphoric expectations and stimulate excessive capital inflows. During a bust, downgrading adds to panic among investors, resulting in rapid capital outflows.

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