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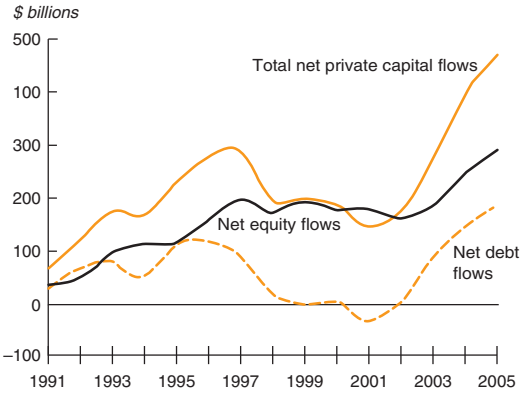
The Growth and Transformation of Private Capital Flows

In 2005, global capital flows to developing countries continued to grow at a record pace. Net private flows increased sharply by $94 billion, reaching $491 billion, reinforcing a trend underway since 2002. The sharp rise came despite lingering uncertainty about the impact of higher oil prices, rising global interest rates, and growing global payments imbalances. The flows have been broad-based, with bond issuance, bank lending, foreign direct investment (FDI), and portfolio equity all recording substantial gains (figure 2.1). During the year, governments and private entities took advantage of favorable financial-market conditions to refinance their debt or prefund future borrowing. As a result, foreign currency–denominated bond issuance by governments and the private sector rose to a record gross of $131 billion in 2005. The spread on emerging market debt dropped to historic lows, averaging 306 basis points for 2005, compared with the 2004 average of 423 basis points and the recent high of 832 basis points, recorded in September 2002. Meanwhile, local-currency bond markets in Asia and Latin America attracted substantial interest from international investors in search of higher yields and potential gains from currency appreciation.

Accounting for the growth in recent years have been the policy responses to the financial crises of the 1990s, a favorable environment for mergers and acquisitions, a wave of privatizations, and innovations in the global marketplace. In the aftermath of the financial crises of the 1990s, many major emerging markets adopted more flexible exchange rate policies, while strengthening domestic financial markets and relaxing controls on cross-border financial flows. Several countries, especially in East Asia, made concerted efforts to accumulate precautionary reserves and build their domestic bond markets to better manage risks associated with foreign portfolio flows.

The favorable environment for cross-border mergers and acquisitions and a new wave of privatizations, particularly in the new member countries of the European Union (EU), pushed FDI to an all-time high of $238 billion. The increase raised the share of developing countries in global FDI flows from 13 percent in 2000 to 24 percent in 2005. During the year, share prices quoted on emerging market stock exchanges turned in a stellar performance, receiving record flows of portfolio equity. Stock issuance by emerging market countries in international financial markets also grew substantially.

Figure 2.1 Net private debt flows to developing countries, 1991–2005



Source: World Bank Debtor Reporting System.

Financial innovations in global financial markets—notably local-currency financing and structured finance instruments—have allowed investors to assume greater exposures in emerging markets. The euro has emerged as a major international reserve currency and as an increasingly important issuing currency for governments and the corporate sector in developing countries.

This chapter provides updates on all types of private capital flows to developing countries, exploring some implications of the increased importance of the euro, the fast-growing credit derivatives markets, and the increasing reliance of many countries on local-currency funding. The key messages emerging from this review are highlighted below.

- Developing countries have benefited from strong economic growth and sounder macroeconomic policies, leading to marked improvements in their external payment positions. Despite the easing of financing conditions, however, developing countries' access to international capital markets remains limited. Private capital flows to the developing world are concentrated in just a few countries. Of the 136 that report to the World Bank, 51 continue to rely primarily or entirely on official sources of cross-border finance. If they are to attract and absorb private capital effectively for long-term growth and development, they will need to, inter alia, further develop their domestic financial markets and institutions.
- Local-currency bond markets in developing countries have, since the crises of the 1990s, emerged as a major source of long-term development finance and are now the fastest growing segment of emerging market debt. Driven largely by domestic institutional and individual investors, these markets grew from $1.3 trillion at the end of 1997 to $3.5 trillion in September 2005. However, bringing the local-currency bond markets in emerging economies up to the standards of mature markets will require concerted efforts. The East Asian countries may provide a case worth watching in this regard, given their early successes. Local-currency debt markets also present new challenges for policy makers. Professionalism in debt management will be needed to manage currency and duration risks associated with burgeoning government debt denominated in local currencies.
- Credit default swaps (CDSs)—derivatives that provide some insurance to the buyer against defaults and other adverse credit events—are being applied in new ways in emerging securities markets—among them those of Bulgaria, the Republic of Korea, Mexico, Peru, the Philippines, and the Russian Federation. This development has important implications for the pricing and supply of debt capital to developing countries, because it offers investors another way of assuming exposure to emerging market risk and enhances the markets' ability to gauge credit risk. Also, by transferring to other market participants some of the credit risk that banks incur in their lending and trading activities, credit derivatives have altered, perhaps fundamentally, the traditional approach to credit-risk management. Presently, only a few banks engage in CDSs in emerging markets, posing the risk that a failure of a major player could create broader risks. Trading takes place largely in the private over-the-counter market and thus lacks transparency. Regulators in developing countries need to build their capacity to monitor CDS transactions and to define a clear line of regulatory responsibility and expertise so as to better manage the associated risks.
- The strong recovery of FDI in developing countries over the past two years reflects healthy global economic conditions and a better investment climate in developing countries. While increased corporate profits, favorable financing conditions, and higher stock-market valuations fueled cross-border investments globally, many developing countries managed to attract high levels of FDI through privatizations, mergers, and acquisitions. Almost all developing countries experienced higher FDI inflows, but the increase was especially notable in new members of the European Union. In China, liberalization of the financial sector and accession to the World Trade Organization led to several important privatization deals in the banking sector in 2005. Many middle-income countries received high levels of services-related FDI through privatizations, while FDI to low-income countries grew principally because of high commodity prices.

- In the years ahead, policy makers in developing countries will have to remain alert to certain risks and vulnerabilities. The current glut of liquidity in the global financial markets may lead to a buildup of risky exposures, as investors in search of higher yields settle for borrowers of lower creditworthiness. The locus of credit risk in developing countries is shifting as private corporates, rather than sovereigns, are emerging as the main borrowers in global credit markets. Political risk has emerged once again as a key concern for emerging market investors. In several countries, populist candidates will stand for election in 2006, raising the fear of policy changes that could reverse the gains from recent fiscal stabilization and liberalization measures. Meanwhile, the traditional policy discipline and frameworks agreed to with multilateral lenders are becoming less prominent with the dwindling need for official financing. The cumulative risks are particularly pronounced in oil-importing countries like Turkey and the Philippines, which have suffered from recent oil price increases without benefiting from the commodity price boom.

Private debt market developments in 2005

In 2005, net private debt flows to developing countries increased sharply to an estimated $192 billion, up from $148 billion in 2004 and $85 billion in 2003 (table 2.1). The net increase reflected an increase in gross financing through bonds and syndicated loans, which set record highs, with flows 54 percent higher in 2005 than in 2004 (table 2.2). New bank lending was particularly strong, swelling to $198 billion in 2005 from $112 billion the year before. Bank lending now accounts for 60 percent of gross debt flows and more than two-thirds of the increase from 2004 (table 2.2).

Driving the strong upswing in foreign private debt flows are abundant global liquidity, steady improvements in developing-country credit quality, lower yields in developed countries, and continued broadening of the investor base for emerging market assets. Upgrades in credit ratings have outpaced downgrades for eight consecutive quarters, with 46 upgrades and 18 downgrades in 2005. As a result, foreign private debt flows have become more soundly based and resilient to swings in external financing conditions.

Bond issuance set records in 2005

The investment community now accepts emerging market debt as a bona fide asset class that is becoming less volatile. The spread on such debt has dropped to historic lows, with an average of just 306 basis points in 2005, compared with 423 basis points in 2004 (box 2.1). In 2005, developing countries raised a record $131 billion in 367 bond issues, an increase in proceeds of 28 percent from 2004. Net issuance of foreign currency–denominated bonds last year amounted to $62 billion, less than half of the total raised.

Table 2.1 Net private debt flows to developing countries, 2002–5

$ billions

	2002	2003	2004	2005
Total net debt flows	5.5	85.1	144.8	191.6
By region:				
East Asia and Pacific	–2.4	9.3	43.3	45.8
Europe and Central Asia	24.9	64.7	93.7	113.8
Latin America and the Caribbean	–21.4	5.4	–1.0	20.5
Middle East and N. Africa	4.8	2.1	2.3	4.6
South Asia	2.4	2.1	6.7	3.0
Sub-Saharan Africa	–2.8	1.5	2.8	3.8
By component				
Bond financing	10.8	26.4	43.0	61.7
Bank financing	–2.8	9.8	39.4	64.4
Other financing	–6.8	–5.9	–4.6	–6.7
Short-term debt financing	4.2	54.9	70.8	69.3

Source: World Bank Debt Reporting System.

Table 2.2 Gross market-based debt flows to developing countries, 2002–5

$ billions

	2002	2003	2004	2005
Total gross flows	120.8	168.9	214.3	329.1
Bonds	51.7	82.2	102.4	130.9
East Asia and Pacific	12.5	11.6	15.7	20.3
Europe and Central Asia	13.8	26.5	38.2	54.7
Latin America and the Caribbean	21.1	38.8	35.9	43.0
Middle East and N. Africa	2.7	1.0	5.6	5.4
South Asia	0.2	0.5	5.1	5.3
Sub-Saharan Africa	1.5	3.9	2.0	2.3
Bank lending	69.1	86.9	111.8	198.1
East Asia and Pacific	21.5	26.9	19.5	34.5
Europe and Central Asia	16.8	22.2	37.8	77.6
Latin America and the Caribbean	18.5	20.6	29.9	46.3
Middle East and N. Africa	5.8	4.6	9.7	15.7
South Asia	1.7	4.0	7.0	12.2
Sub-Saharan Africa	4.9	8.5	7.9	11.9

Sources: Dealogic Bondware and Loanware and World Bank staff.

Box 2.1 The emerging bond market enters the mainstream

Emerging market debt is heading firmly into the mainstream of global bond trading. The traditionally high idiosyncratic risk associated with emerging market bonds has declined significantly since 2002, a trend reflected in the spreads of such bonds over U.S. Treasuries. Four important features of this transformation are:

- First, emerging market bond spreads are moving increasingly in tandem with U.S. high-yield bonds (see figure at top left). In the midst of uncertainty about the fate of the Brazilian economy in 1998, emerging market spreads were 1,200 basis points. At the end of 2005 they were just over 200 basis points.[a] The decline occurred despite Argentina's default in 2002, a period of tightening of U.S. monetary policy during 2004–5, and turmoil in the U.S. corporate bond market caused by downgrades of car makers.
- Second, volatility in emerging market bond spreads, as measured by the standard deviation of Emerging Market Bond Index (EMBI) spreads, has declined significantly since 1999 (see top right figure on next page).
- Third, emerging bond indices are becoming more strongly correlated with both global and U.S. bond indices (see figure at lower left). The strength of the correlation between emerging market and global bond markets has been increasing for five years.
- Fourth, the extraordinary narrowing of spreads has been accompanied by a parallel move to smaller daily fluctuations—both lower variability and fewer extreme changes (see figure at lower right). The frequency distribution of changes in daily spreads seems to be best characterized as nonnormal, having fatter and asymmetric tails (kurtosis and skewness). A measure of the nonnormality, the Jacques-Bera test,[b] indicates that the distribution became more normal in 2002–2004 because of a decline in excess kurtosis, although non-normality was higher again in 2005 because kurtosis and skewness were both higher. Skewness was significantly negative in several years, including 2005, indicating that longer tails to the left were probably caused by the decline in spreads.[c]

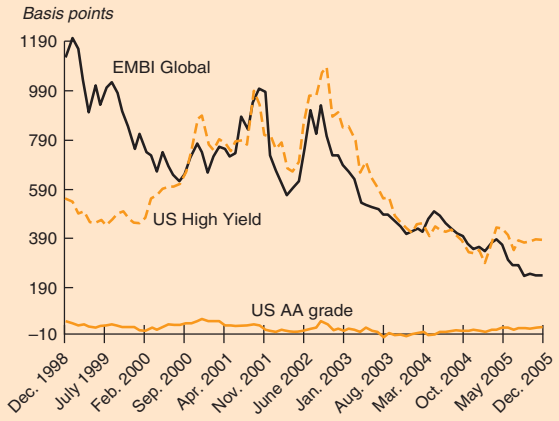
Source: World Bank staff calculations based on various data sources.
a. The EMBIG is affected by the removal of defaulted bonds from the index; adjusting for these changes, however, gives the same picture of a dramatic decline in spreads.
b. The Jacques-Bera test statistic is $(N/6)(.25K^2+S^2)$, where N is the number of observations, K is excess kurtosis, and S is skewness. It is distributed as a chi-square with 2 degrees of freedom, so that a value in excess of 6 indicates rejection of normality at the 5 percent level.
c. The distribution of daily changes in EM bond spreads is becoming more normal, in the sense that the excess kurtosis displayed in changes in spreads has been declining roughly since 2001, although it has increased slightly in the 2004–5 period. The standard deviation has also declined significantly from a high of 21.8 in 2001 to 5.7 in 2005. Over this period, the distribution tended toward a normal distribution, since the Jacques-Bera test statistic has been declining, with the exception of 2005.

Bond issuance was concentrated. Ten countries (Brazil, China, Hungary, India, Indonesia, Mexico, Poland, the Russian Federation, Turkey, and República Bolivariana de Venezuela) accounted for 69 percent of the issuance.[1] Forty developing countries accessed the international bond market, compared with 34 in 2002 and 2003. Countries from Europe and Central Asia accounted for 42 percent of total issuance in 2005, with Poland, the Russian Federation, and Turkey leading the pack. Three of the five largest issues in the region were by Russian firms, including two U.S.-dollar-denominated bonds issued by the financial entity Gazstream SA. In Poland, 13 sovereign issues, totaling $12 billion, were issued to refinance the country's Paris Club debt. Four of these were publicly issued in the euro market, two in the global dollar market, and four in the Swiss franc market.

Latin America and the Caribbean region accounted for about 33 percent of total issuance, with Brazil's government being the most active borrower. In 2005, the Brazilian government exchanged its outstanding C-bonds for U.S.-dollar-denominated global bonds having a face value of $4.5 billion and a maturity of 12 years, retiring a third of its Brady debt. The Southern Copper Corporation carried out a notable transaction in Mexico, issuing two U.S.-dollar-denominated bonds, one with a maturity of 10 years ($200 million), and the other 30 years ($600 million). The average maturity of fixed-rate issues by Latin American firms in 2005 was 13.2 years.

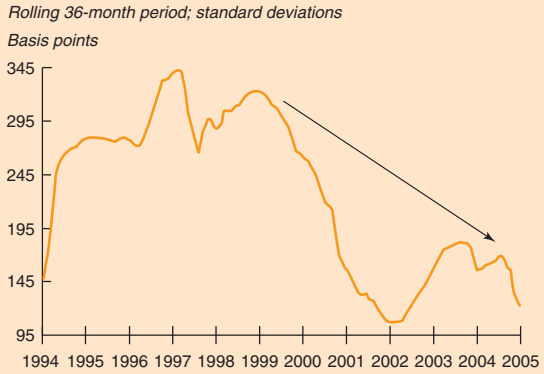
Countries in East Asia and the Pacific issued bonds to borrow $ 20.3 billion, with China being the major issuer through government-owned banks. The Export-Import Bank of China and the China Development Bank each issued $1 billion in

Convergence of emerging market bond spreads with U.S. high-yield bonds, December 1998–December 2005



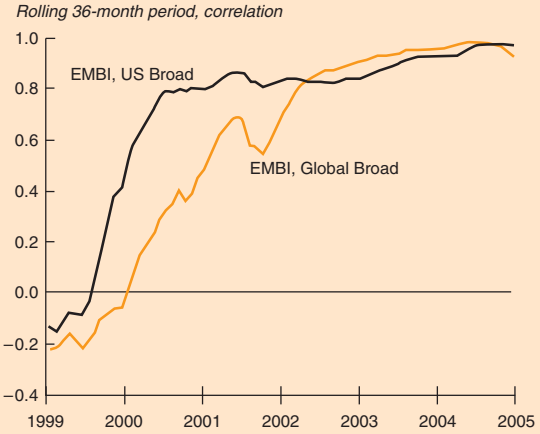
Sources: JPMorgan Chase and Merrill Lynch.

Decline in emerging market bond volatility, 1994–2004



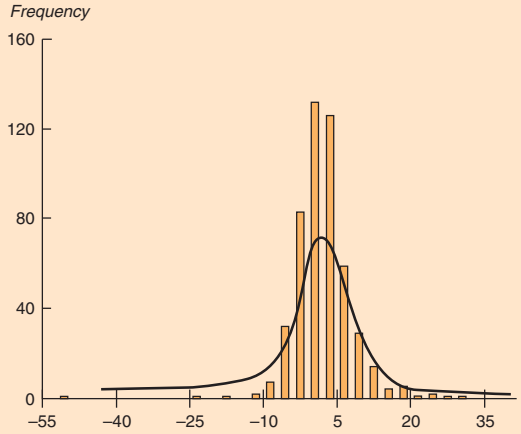
Sources: JPMorgan Chase and World Bank staff calculations.

Correlation of emerging market bond indices with global and U.S. indices, 1998–2005



Sources: JPMorgan Chase and World Bank staff calculations.

Distribution of daily changes in emerging market bond spreads



Sources: JPMorgan Chase and World Bank staff calculations.

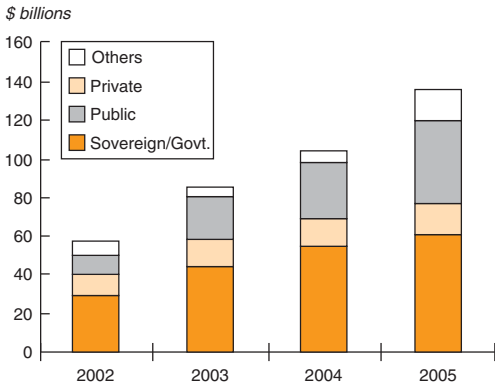
10-year U.S.-dollar-denominated bonds. In September 2005, the government of the Philippines completed its 2005 funding program by successfully issuing a 10-year U.S.-dollar-denominated bond for $1 billion at a spread of 430 basis points over 10-year U.S. Treasuries.

Sovereign borrowers accounted for 46 percent of total issuance (figure 2.2) in 2005. They took advantage of favorable market conditions to refinance costlier debt and prefund future funding requirements. Private sector issues increased as well, accounting for a third of issuance in 2005. Private sector issuers were able to borrow on better terms, thanks to the convergence of spreads for private and sovereign issuers since 2003 (figure 2.3).

In 2005, bond issuance covered the entire credit spectrum, but almost half of the *increase* in 2005 was accounted for by borrowers rated below investment grade. Investment-grade-rated borrowers accounted for 36 percent of 2005 issues, compared to about 51 percent in 2002 (figure 2.4).

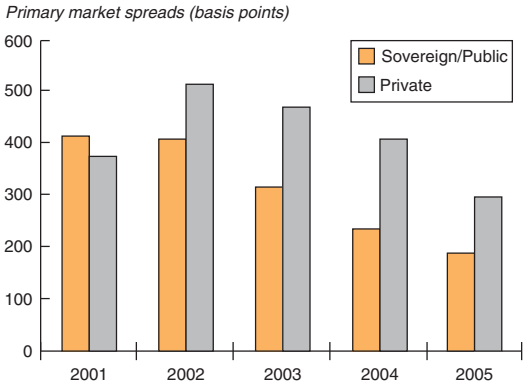
Since late 2002, the favorable financing environment has reduced the burden of arranging new financing for many borrowers—among them

Figure 2.2 Emerging market bond issuers by type, 2002–5



Source: Dealogic Bondware; Bank of International Settlements.

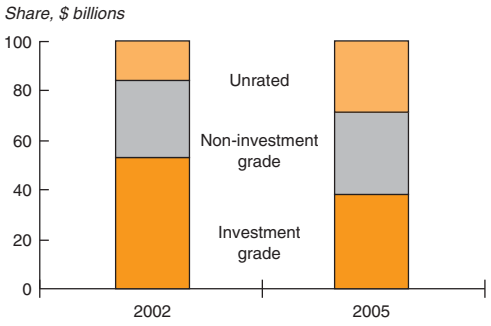
Figure 2.3 Average spreads on new bond issues, 2001–5



Sources: Dealogic Bondware and World Bank staff calculations.

Brazil, Mexico, the Philippines, and Poland, all of which were able to prefund their 2005 financing needs before mid-year. By late 2005, some sovereigns were well advanced in financing their 2006 and 2007 requirements. Infrequent and first-time borrowers, such as Pakistan and Vietnam, were able to tap international debt markets at attractive rates during 2005. Large institutional investors (such as public pension funds and endowment funds) as well as Asian central banks are now interested in investing in emerging market debt because of fundamental improvements in the economies of major developing countries.

Figure 2.4 Bond market financing by risk category, 2002–5



Source: Dealogic Bondware and Loanware.

Syndicated bank loans showed a cyclical recovery

Syndicated bank lending to developing countries set records in 2005. Gross bank lending of $198 billion, an increase of 74 percent over 2004, involved 1,261 transactions in a broad range of sectors, dominated by oil and gas projects and oil import financing. Europe and Central Asia accounted for about 39 percent of the gross flows (table 2.3), followed by Latin America and the Caribbean (23 percent) and East Asia (17 percent). Like FDI and bond issues, lending was highly concentrated, with the top 10 countries (Brazil, Chile, China, India, Mexico, Poland, the Russian Federation, South Africa, Thailand, and Turkey) receiving 70 percent of the total bank lending to developing countries. Average gross flows to the top 10 grew by more than 107 percent, with lending to Thailand increasing by 455 percent in 2005. Sixty-seven countries, mostly low-income countries rated below investment grade or unrated, received no new loans at all.

In 2005, *short-term debt* to developing countries increased by $61.9 billion to $556.7 billion, an increase of 12.5 percent from 2004. China accounted for 41 percent of the increase, with Brazil, Malaysia, the Russian Federation, and Turkey accounting for most of the balance. During 2000–5, short-term loans grew considerably from the $316.4 billion recorded in 2000, with East Asia and Europe and Central Asia accounting for almost all of the increase, while Latin America experienced a drop of 16 percent. (In 2005, short-term lending to Europe and Central Asia increased by 21 percent). Although global short-term debt has

risen, its size relative to developing countries' foreign exchange reserves declined from 48 percent in 2000 to around 28 percent at the end of 2005.

The uses of financing raised by syndicated bank loans vary considerably by region. Most lending to the Russian Federation, which accounted for half of all flows to Europe and Central Asia, was for oil and gas transactions, with the Gazprom acquisition ($13.1 billion) accounting for almost two-thirds of the Russian total. In Latin America and the Caribbean, the major borrowers were petroleum companies (Petrobras in Brazil and Pemex in Mexico) seeking to refinance existing loans or to finance trade. In East Asia, China received $18.5 billion (54 percent of the gross flows to East Asia and the Pacific) for a broad range of transactions including oil and gas, property, project finance, and purchase of aircraft. In Thailand, telecommunication companies and utilities were the major borrowers. In South Asia, India received $11 billion, or 91 percent of gross flows to the region. Proceeds, most intermediated through Indian banks, were used for projects such as a new airport in Bangalore and trade financing. In Sub-Saharan Africa, the major borrowers were central banks, which refinanced existing borrowing at more attractive rates. In the Middle East and North Africa, Turkey was the major borrower, with almost all borrowing moving through Turkish banks for use as trade financing.

In several new EU member countries, including Hungary and Slovenia, large financial and nonfinancial borrowers were able to borrow from banks at spreads close to levels paid by their western European counterparts. Most loans were denominated in euros. Banks also invested in euro-denominated debt instruments issued by Poland and Hungary. In Latin America, the oil and cement sectors secured exceptionally cheap loans.

The gap in access to credit persists

Developing countries can be divided into three categories based on their degree and nature of access to global capital markets (table 2.4):

- *Countries with access to bond markets.* These are countries that have issued bonds regularly since 2002. Included in this group are eight countries that are the developing-country "stars" of the bond market—Chile, China, Hungary, Malaysia, Mexico, Poland, the Russian Federation, and Thailand. All are rated investment-grade, have significantly lower spreads than the overall developing-country average, and exhibit low volatility in spreads.
- *Countries with access to bank lending only.* This category comprises countries that lack access to bond markets because of inadequate legal and institutional regulations or an unstable macroeconomic environment. Although perceived as posing high credit risks, they can access bank credit because of well-defined revenue streams (such as exports and remittances) or their ability to securitize borrowing (often thanks to the presence of extractive industries).
- *Countries with limited access to capital markets.* These are countries with no access to either bond markets or medium- and long-term bank lending. They may have access to other types of private international finance, such as short-term loans or FDI. Countries in this group rely mainly on official financing for their long-term capital needs.

Table 2.3 Gross cross-border loan flows, 2005

	No. of loans	Amount US$ millions	Amount %	Avg. loan size US$ millions
Total	1,261	198,135	100.0	158
East Asia and Pacific	215	34,470	17.4	162
Europe and Central Asia	368	77,586	39.2	215
Latin America and the Caribbean	432	46,316	23.4	107
Middle East and N. Africa	89	15,726	7.9	177
South Asia	101	12,151	6.1	121
Sub-Saharan Africa	56	11,887	6.0	203

Source: World Bank staff calculations based on Dealogic Loanware data.

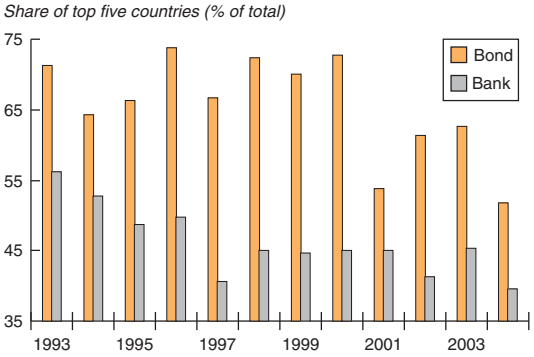
Some 52 developing countries have accessed the global bond markets each year since 2002. The number has not risen, despite the favorable financing environment. Bond financing is more concentrated than bank financing (figure 2.5). In 2005, 15 countries alone accounted for about 80 percent of bond volume. Non-investment-grade and unrated borrowers, who accounted for some 49 percent of total gross bond flows to emerging markets in 2002, saw their share increase to about 64 percent in 2005. Borrowers in bond markets from 10 major emerging market economies, including Brazil, República Bolivariana de Venezuela, and Turkey accounted for the bulk of the rise in high-risk issuance in 2005.

Table 2.4 Countries' access to international capital markets by intermediaries, 2002–5

Countries with access to bond markets	Credit ratings[a]	Countries with access to bank lending only[b]	Credit ratings[a]	Countries with no access to private debt markets[c]	Credit ratings[a]
Argentina	B3	Albania	*NR*	Armenia	*NR*
Barbados	Baa2	Algeria	*NR*	Benin	B+
Belize	Caa3	Angola	*NR*	Bhutan	*NR*
Brazil	Ba3	Azerbaijan	BB	Burundi	*NR*
Bulgaria	Ba1	Bangladesh	*NR*	Cambodia	*NR*
Chile	Baa1	Belarus	*NR*	Cape Verde	*NR*
China	A2	Bolivia	B3	Central African Republic	*NR*
Colombia	Ba2	Bosnia and Herzegovina	B3	Chad	*NR*
Costa Rica	Ba1	Botswana	A2	Comoros	*NR*
Croatia	Ba3	Burkina Faso	B	Congo, Dem. Rep.	*NR*
Czech Republic	A1	Cameroon	B-	Côte d'Ivoire	*NR*
Dominican Republic	B3	Congo, Rep.	*NR*	Dominica	*NR*
Ecuador	Caa1	Djibouti	*NR*	Eritrea	*NR*
Egypt, Arab Rep.	Ba1	Equatorial Guinea	*NR*	Fiji	Ba2
El Salvador	Baa3	Ethiopia	*NR*	Gambia, The	*NR*
Estonia	A1	Gabon	*NR*	Georgia	B+
Grenada	B-	Ghana	B+	Guinea-Bissau	*NR*
Guatemala	Ba2	Guinea	*NR*	Guyana	*NR*
Hungary	A1	Honduras	B2	Haiti	*NR*
India	Baa3	Kenya	*NR*	Lesotho	*NR*
Indonesia	B2	Kyrgyz Republic	*NR*	Madagascar	B
Iran, Islamic Rep.	B+	Lao PDR	*NR*	Malawi	*NR*
Jamaica	B1	Liberia	*NR*	Mauritania	*NR*
Jordan	Baa3	Maldives	*NR*	Moldova	Caa1
Kazakhstan	Baa3	Mali	B	Mongolia	B1
Latvia	A2	Mauritius	Baa2	Myanmar	*NR*
Lebanon	B3	Mozambique	B	Nepal	*NR*
Lithuania	A3	Nicaragua	Caa1	Niger	*NR*
Macedonia, FYR	BB+	Nigeria	BB-	Paraguay	Caa1
Malaysia	A3	Papua New Guinea	B1	Rwanda	*NR*
Mexico	Baa1	Senegal	B+	Samoa	*NR*
Morocco	Ba1	Seychelles	*NR*	São Tomé and Principe	*NR*
Oman	Baa1	St. Lucia	*NR*	Sierra Leone	*NR*
Pakistan	B2	Sudan	*NR*	Solomon Islands	*NR*
Panama	Ba1	Tanzania	*NR*	Somalia	*NR*
Peru	Ba3	Turkmenistan	B2	St. Kitts and Nevis	*NR*
Philippines	B1	Uzbekistan	*NR*	St. Vincent and the Grenadines	*NR*
Poland	A2	Vanuatu	*NR*	Swaziland	*NR*
Romania	Ba1	Yemen, Rep.	*NR*	Syrian Arab Republic	*NR*
Russia	Baa2	Zambia	*NR*	Tajikistan	*NR*
Serbia and Montenegro	BB-			Togo	*NR*
Slovak Republic	A2			Tonga	*NR*
South Africa	Baa1			Uganda	*NR*
Sri Lanka	BB-			Zimbabwe	*NR*
Thailand	Baa1				
Trinidad and Tobago	Baa2				
Tunisia	Baa2				
Turkey	Ba3				
Ukraine	B1				
Uruguay	B3				
Venezuela, RB	B2				
Vietnam	Ba3				

Sources: Dealogic Bondware and Loanware, Moody's, S&P and Fitch, and World Bank staff calculations.
Note: This table classifies the 135 countries that report to the World Bank's Debtor Reporting System (DRS) by accessibility to international capital markets across bond and bank segments (based on data cover transactions on international loan syndications and bond issues reported by capital-market sources, including Dealogic Bondware and Loanware). Countries are divided into three main categories: countries with access to bond markets, including all the countries that have issued bonds between 2002 and 2005; countries with access to bank lending only; countries that have no access to either bond or bank lending, including countries that primarily rely on official financing for their financing needs.
a. Long-term sovereign foreign currency debt ratings, as of February 3, 2006. Moody's ratings were used for most of the countries. However, S&P and Fitch ratings were used for countries that are not rated by Moody's, including Benin, Ghana, Grenada, Macedonia, FYR, Mali, Senegal, and Serbia and Montenegro. NR indicates countries that are not rated by either Moody's or S&P.
b. For analytical purposes, bank lending in this table is only referred to as medium- and long-term lending (excluding short-term lending that has less than 1 year of maturity).
c. The use of the term, "no access to capital markets," is not intended to imply that all countries in this category do not have access to other types of international private capital, such as FDI and portfolio equity. International capital defined here only refers to the bond and bank segments of the market.

Figure 2.5 Concentration in bond and bank financing, 1993–2003



Source: World Bank staff calculations based on Dealogic Bondware and Loanware data.

The difference between the cost of bond and bank financing narrowed substantially in 2005 due to movements in spreads over benchmark pricing and changes in the benchmark rates (figure 2.6). For *bond financing*, spreads declined to an historic low in 2005, while the underlying benchmark long-term rate (10-year U.S. Treasury bonds) remained depressed despite 10 hikes in short-term rates since June 2004. At the end of December 2005, the long-term rate was about 4.48 percent, compared with 4.72 percent in June 2004, when short-term rates began their rise. These developments caused absolute borrowing costs to drop from 8.8 percent in June 2004 to 6.8 percent in December 2005.

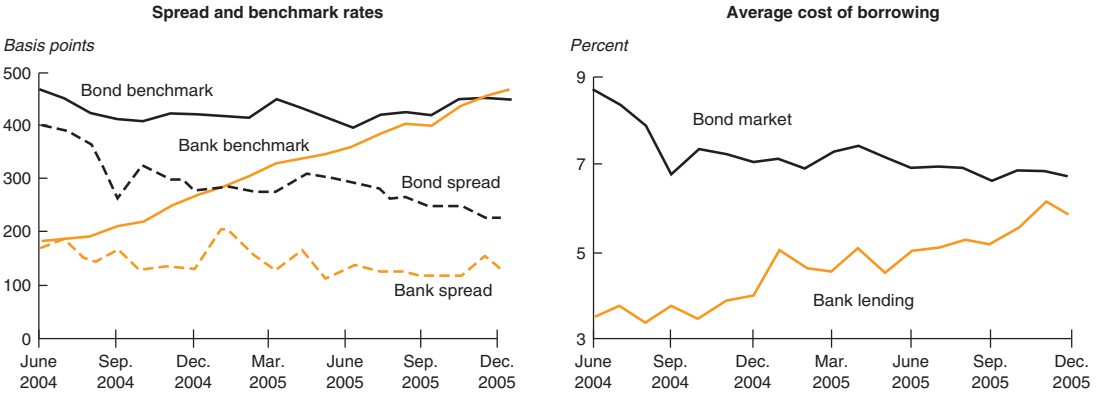
For *bank lending*, the decline in spreads was not as stark as for bond financing, falling only 50 basis points from June 2004 to December 2005. However, the underlying pricing benchmark, usually the six-month Libor rate, rose by almost 285 basis points, in step with the short-term U.S. interest rates. In the end, this led to an increase of about 235 basis points in absolute borrowing costs over the cost in June 2004.

The vast majority of developing countries continue to rely on bank credit for their financing needs, despite rising costs. Information asymmetry is one reason why bank lending is so much more common than bond financing. Because of their close relations with clients and their ability to monitor clients' businesses, banks are better positioned than bond investors to gather information on prospective borrowers, enabling banks to reach out to more borrowers.

Higher-risk borrowers have no alternative to bank financing. Between 2002 and 2005, some 80 percent of bank loans were made to borrowers that had no credit rating or were rated below investment grade. High-risk borrowers use such loans to finance trade or specific projects, refinance debt, and fund day-to-day operations (figure 2.7). Using the bond markets for such core activities is not an option for high-risk borrowers. Since 2002, the share of bank credit attributed to financing core activities has been rising, partly because borrowers that could make the transition to bond financing did so, thereby increasing the share of core financing activities in remaining bank credit.

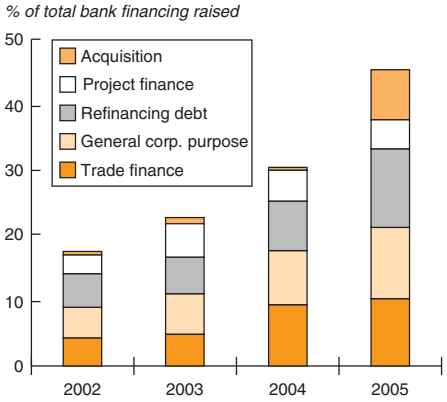
Although the average cost of bank borrowing has increased, the average maturity of bank loans has grown as well—by about four years since

Figure 2.6 Comparative cost of bond and bank financing, June 2004–December 2005



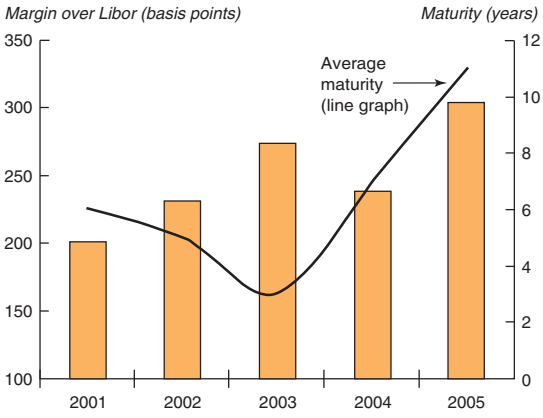
Source: World Bank staff calculations based on Bloomberg and J.P. Morgan Chase data.

Figure 2.7 Bank financing raised for core activities, 2002–5



Sources: Dealogic Loanware and World Bank staff calculations.

Figure 2.8 Bank credit for high-risk borrowers: rising rates but longer maturities, 2001–5



Sources: Dealogic Loanware and World Bank staff calculations.

2004 (figure 2.8). Loan maturities normally shrink as lending rates rise, suggesting that high-risk countries may now be willing to pay higher costs in return for longer maturities.

Developing-country credit continued to improve in 2005, as rating agency upgrades handily outpaced downgrades. Moreover, the pace of credit upgrades is accelerating. Some 46 upgrades occurred in 2005, in contrast to 31 in 2004. Some countries enjoying upgrades are commodity exporters, (for example, Brazil, Mexico, the Russian Federation, and Republica Bolivariana de Venezuela). These economies paid down external debt and built up substantial liquidity with commodity-driven windfall gains. Yet several net oil importers, such as Thailand and South Africa, also earned upgrades through strong growth and improved economic management.

Portfolio equity showed major gains

Portfolio equity flows to developing countries made major gains in 2005. At $61 billion, flows were up sharply from $37 billion in 2004. The record gain was driven by a significant increase in international corporate equity placements in emerging markets and foreign investment in emerging market stocks. The revival of interest in emerging market equity can be traced to fundamental changes in emerging markets and to the growing popularity, among managers of large funds, of separate, actively managed emerging market portfolios.

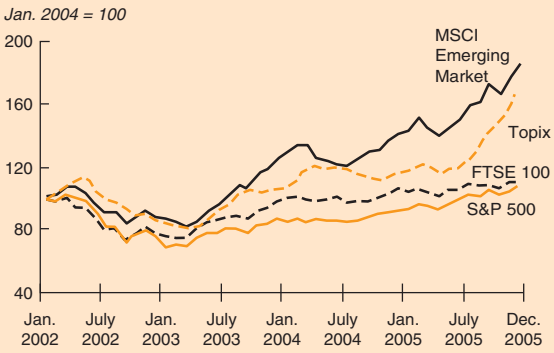
In 2005, as in the recent past, portfolio equity investments remained concentrated in major emerging markets. The Asia region continued to account for the lion's share (about 63 percent) of total portfolio equity flows, with China, India, and Thailand together making up about 94 percent of the region's total. Notwithstanding the fact that the Chinese stock market performed poorly over the last five years, China continues to attract portfolio equity flows through initial public offerings (IPOs). In 2005, China accounted for about 31 percent of the total equity flows to all developing countries and almost half of those to the Asia region. Greater investor interest in Brazil and Mexico increased the shares of Latin America slightly. Flows to Europe and Central Asia slumped to $2.3 billion from $4.2 billion the previous year, due to outflows from the Czech Republic and the Russian Federation.

The volume of equity placements surged in 2005, as stock markets in emerging markets outpaced those elsewhere (box 2.2). Most of the portfolio equity investment in 2005 took place through international equity placements, which were up about 60 percent over the same period in 2004. After a slow period in the first quarter, issuance continued briskly throughout the year, on the strength of an expanded investor base and attractive valuations. Just 10 percent of the transactions, including a few large IPOs, accounted for 64 percent of the total volume. In 2005, IPOs accounted for about 63 percent of all emerging market equity transactions, up from 47 percent in

Box 2.2 Strong performance of emerging stock markets in 2005

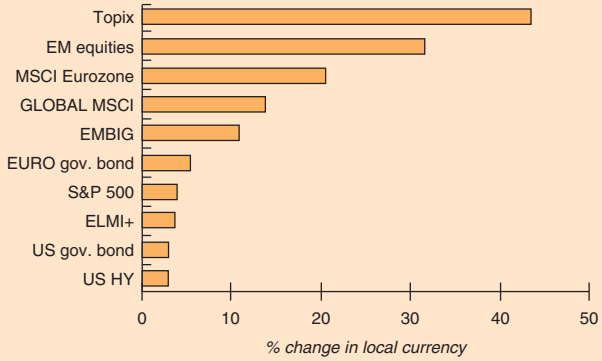
Emerging stock markets performed exceptionally well in 2005. With an increase of about 32 percent in the MSCI Emerging Market Index, these stock markets outperformed most mature markets. However, stock prices were volatile, because of rising concern about inflation and the tightening of monetary policy in the United States and Europe. In 2005, emerging market equity easily outpaced other asset classes, including both bonds and equities. Stellar performers during 2005 included Brazil (43.5 percent), India (40.2 percent), Mexico (38.6 percent), the Russian Federation (69.8 percent), and Turkey (49.2 percent). Expectations of returns from emerging market equities in 2006 are subdued in the face of relatively high valuations.

Performance of global equity markets, 2002–5



Sources: Bloomberg and World Bank staff calculations.

Total returns from global capital markets in 2005



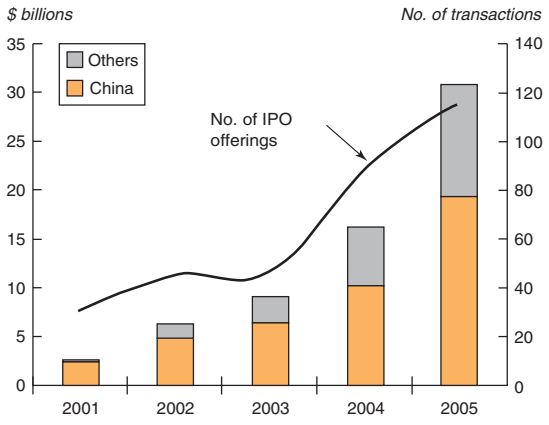
Sources: Bloomberg, JPMorgan Chase, and World Bank staff calculations.

2004. Asian countries accounted for a majority of these transactions. China alone accounted for about 21 percent of global IPO activities in 2005 and almost 61 percent of the total in emerging markets (figure 2.9). Many of these IPOs involved sales of stakes in underperforming state-owned banks and other financial institutions. Among the efforts was a jumbo IPO by China Construction Bank, which raised $9.2 billion.

Revival of interest in local equity placement was evident in Latin America, where more than $5.5 billion was raised on local equity markets in 2005. Issuance volume, although still relatively low, contrasted markedly with the negligible activity in the region's equity markets over the past several years. Issuance in emerging Europe was dominated by the Russian Federation, which accounted for about 64 percent of the regional total. Most equity issues in emerging Europe took the form of depository receipts and IPOs issued by companies in the communications sector, along with a few offerings by companies in the oil and gas sector. In Sub-Saharan Africa, only South Africa had equity offerings, where shares of mining companies that are world leaders in their sector were an attractive destination for foreign portfolio investment.

In recent years, major institutional investors in the United States and elsewhere have gradually increased their international stock holdings, including stocks from emerging markets (table 2.5). The trend has accelerated since 2003, with international markets generating higher adjusted returns than the U.S. market. At the end of 2004, financial assets under institutional management (pension, insurance, and mutual funds) totaled $46 trillion,[2] of which the United States accounted for $20.7 trillion. Allocation to international equity ranged from a low of 13 percent in the United States to 40 percent in the Netherlands. Because the United States accounts for such a large share of international financial assets, the recent increase in U.S. managers' allocations to international markets,

Figure 2.9 IPO activities in emerging market countries 2001–5



Source: Dealogic Loanware and World Bank staff calculations.

although small in percentage terms,[3] represents a major increase in flows into emerging market equities. The year also brought a large increase in retail investments in emerging markets through emerging market stock funds. The availability of exchange-traded funds has made it much easier for private individuals to invest in emerging markets

FDI grew through privatizations and expansion of the European Union

FDI flows to developing countries continued to grow in 2005, reaching a record level of $237.5 billion, or about 2.8 percent of developing countries' aggregate GDP (table 2.6). Much of the momentum derives from the same factors that account for the strong recovery of FDI at the global level (which totaled $959.4 billion in 2005, up sharply from $666.5 billion in 2004).[4] Those factors include robust global growth, increased corporate profits, favorable financing conditions, and higher stock market valuations, which have fueled cross-border mergers and acquisitions. Factors specific to developing countries have also been at play:

- Global economic growth has recently been much more favorable to the developing world, bringing with it a commodity price boom and generally higher developing-country growth. Rapid growth makes developing countries attractive destinations for global FDI, particularly the market-seeking investments that have become the largest share of global FDI flows since the late 1990s.
- Corporate profits have risen in developing countries (UNCTAD 2005). In 2005, income generated from FDI in developing countries climbed to $120 billion from $80 billion in 2002. Approximately $45 billion of the 2005 total was reinvested.
- The investment climate in many developing countries, including low-income countries, has improved over the years (World Bank 2005). Many countries have revised their policies toward FDI to make them more favorable (UNCTAD 2004). After a slow down, privatizations and mergers and acquisitions (M&A) deals gained momentum in 2005, bringing in large amounts of FDI.

Table 2.5 Asset allocation of major international pension funds, 2004

Share of total

Country	Domestic Equity	International equity	Domestic bonds	International bonds	Cash	Other
Australia	31	22	17	5	6	19
Japan	29	16	26	11	11	7
Netherlands	7	40	7	32	4	10
Sweden	21	16	29	26	2	6
Switzerland	13	14	34	10	8	21
United Kingdom	39	28	23	1	2	7
United States	47	13	33	1	1	5

Sources: International Financial Services, London, Fund Management, August 2005.

The investment climate improved in many developing countries

A better investment climate in many developing countries played a role in the recent rapid growth of FDI. Many low- and middle-income countries have taken steps, either unilaterally or in compliance with multilateral and regional agreements, to strengthen their foreign investment policies by easing sectoral restrictions and improving corporate governance (World Bank 2005; UNCTAD 2004). At the same time, better macroeconomic conditions, such as higher growth rates, increased openness to trade, lower external debt, and exchange rate stability made investments in developing countries less risky. Countries with a better investment climate managed to attract higher levels of FDI flows as a percentage of their GDP (figure 2.10).

The key policy implications for countries attempting to attract FDI are to create a better in-

Table 2.6 Net FDI flows to developing countries, 2000–5

$ billions

	2000	2001	2002	2003	2004	2005[e]
Total	**168.8**	**176.9**	**160.3**	**161.6**	**211.5**	**237.5**
East Asia & Pacific	44.3	48.5	57.2	59.8	64.6	65.3
Europe & Central Asia	30.2	32.7	34.9	35.9	62.4	75.6
Latin America & Caribbean	79.3	71.1	48.2	41.1	60.8	61.4
Middle East & North Africa	4.2	3.4	3.7	5.6	5.3	9.1
South Asia	4.4	6.1	6.7	5.7	7.2	8.4
Sub-Saharan Africa	6.5	15.0	9.5	13.6	11.3	17.6
Low-income countries	10.7	12.8	15.0	14.9	17.0	23
Middle-income countries	158.2	164.1	145.3	146.7	194.5	214.4
Global FDI Flows	*1,388.4*	*807.8*	*721.0*	*623.8*	*666.5*	*959.4*

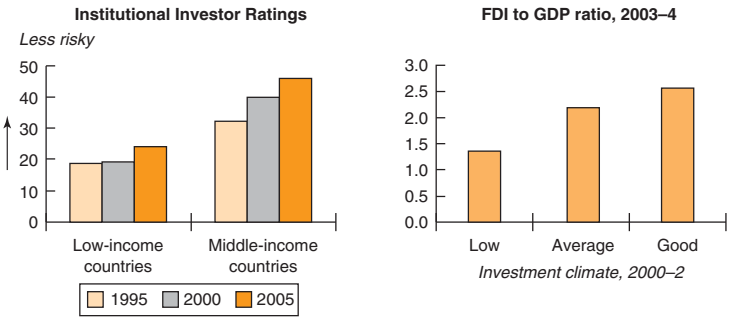
Sources: World Bank, *Global Development Finance*, various years, and World Bank staff estimates for 2005.
Note: Numbers may not add up due to rounding.
e = estimate.

vestment climate by (a) improving access to adequate infrastructural and institutional facilities; (b) providing a stable, consistent, and transparent legal and regulatory framework and decreasing red tape; and (c) engaging in international governance arrangements. More importantly, developing countries should identify and develop those national competitive advantages that are likely to be of particular interest to foreign investors. In this context, countries should promote local skills development and encourage private sector development in order to broaden the opportunities for entrepreneurial activity. Countries also should strengthen their investment-promotion activities by establishing a broad-reaching agency that can list and market investment opportunities as well as provide information about doing business in the country.[5] Countries should focus not only on policies to attract FDI, however, but also on the policies that are necessary for FDI to generate a positive development impact in the recipient country (see chapter 5).

The concentration of FDI has declined in recent years

Although the top 10 countries (China, the Russian Federation, Brazil, Mexico, the Czech Republic, Poland, Chile, South Africa, India, and Malaysia) accounted for almost 65 percent of FDI to developing countries in 2005, that concentration is considerably less than the 75 percent share of the late 1990s. In addition, the share of low-income countries has increased steadily to almost 10 percent, mainly due to increases in resource-seeking FDI. Relative to the size of the economies, the difference between FDI flows to the top 10 recipient countries (2.7 percent of GDP) and other developing countries (2.4 percent in other low-income and 2.3 percent other middle-income countries) declined significantly over the years (figure 2.11).

Figure 2.10 Investment climate and FDI

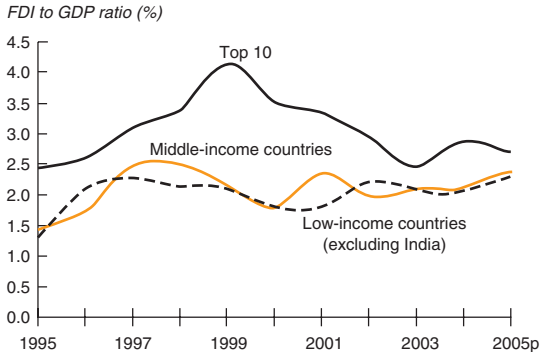


Source: Institutional Investor Magazine, various years; *Global Development Finance*, various years.
Note: Investment climate (Institutional Investor Rating) is the average for the 2000–2 period; FDI to GDP ratio is the weighted average for 2000–4 for 86 countries, excluding major oil exporting countries.

Regional differences remain important

Europe and Central Asia absorbed much of the increase in FDI in 2005. Investment in the region reached a record $76 billion in 2005, up from the previous record of $62 billion in 2004. High commodity prices encouraged significant increases in FDI in the resource-rich countries of the region, notably the Russian Federation, Azerbaijan, and Kazakhstan, while FDI flows to EU accession countries in the region also rose significantly. Several of the countries in the first wave of the recent

Figure 2.11 The concentration of FDI, 1995–2005



Sources: Global Development Finance, various years; *World Development Indicators*, various years; World Bank staff estimates for 2005.
Note: Top 10 countres include China, Russian Federation, Brazil, Mexico, Czech Republic, Poland, Chile, South Africa, India and Malaysia. Low and Middle Income averages exclude these countries. p = projected.

EU expansion (Czech Republic, Hungary, and Poland) continued to receive high levels of investment due to buoyant corporate profits and substantial reinvested earnings. Romania and Bulgaria, which are expected to join the European Union in 2007, also received large amounts of investment. In Latvia, and the Slovak Republic, FDI levels were stabilized, mainly supported by reinvested earnings. Progress in privatization of the telecom and financial sectors, along with early talks on EU accession, brought FDI flows to Turkey to an all-time high.

FDI in Latin America stabilized at $61.4 billion in 2005. The continuing economic recovery in the United States and resource-seeking investors were the principal forces behind the high level. The impact of improved competitiveness was discernible in the increase in investment in manufacturing, while FDI in services stalled (except in Mexico's financial sector). In Brazil, FDI in manufacturing increased, even as overall FDI decreased slightly because of political problems. Both Brazil and Mexico were among the top developing-country recipients of FDI, absorbing $15 billion and $18 billion respectively. Colombia experienced strong growth in FDI because of investments in coal and the sale of a major beer company.[6]

FDI in East Asia and the Pacific rose only slightly in 2005, in contrast to more vigorous growth in previous years. As expected, FDI flows to China showed their first-ever decline. Although economic growth remains high and income from FDI increased, investors worried about declining profit margins from increased competition (IMF–World Bank Global Investor Survey 2005) and overheating of the economy (A.T. Kearney 2005). Reinvested earnings declined significantly in 2004. FDI in services, particularly in the financial sector, is on the upswing, as China opens up to meet the requirements of WTO membership (box 2.3). The country's financial sector received more than $13 billion in investment in 2005, as banks (including banks from Chile and Brazil) positioned themselves by opening branches or representative offices.[7] In contrast to the situation in China, FDI inflows to other Asian countries increased sharply, with Indonesia receiving $2.3 billon, largely related to the continuing privatization of state assets and acquisitions of private firms. Malaysia and Thailand also received substantial flows.

FDI in South Asia also grew in 2005. In India, investment rose in industries such as cement, sugar, plastics and rubber, and hotels. In Pakistan, as in the countries of the Middle East and North Africa, privatization and resource-related FDI led growth in FDI. Both the Arab Republic of Egypt and Tunisia received significant levels of FDI in energy and energy services. FDI in Sub-Saharan Africa increased significantly in 2005, mainly because of two large acquisitions in South Africa.[8] The other countries in the region that continued to receive high levels of FDI were resource-rich countries, notably Nigeria and Angola.

A new wave of privatizations and cross-border mergers and acquisitions is cresting

An important factor in the recovery of FDI from its low point in 2002–3 has been the growing number of privatizations, mergers, and acquisitions in developing countries (table 2.7). In the late 1990s, FDI flows to developing countries were boosted by such deals, particularly in Latin America and Eastern Europe; similarly, the slowdown in activity since 2000 has been reflected in lower FDI flows. Since 2004, however, several important privatizations have been completed, but their full effect on FDI was not necessarily immediate because of the general lag between approval of the investments and actual implementation of the projects.

Box 2.3 Growing FDI in China's banking sector

Since China joined the World Trade Organization in 2001, foreign banks have been positioning themselves in China's market, where restrictions on local-currency transactions are expected to be removed by December 2006. Foreign banks can enter the market in one of two ways: they may either invest in a domestic bank and hold a minority share (less than 25 percent) or open up fully owned branches. To gain immediate accesses to a large branch network, many foreign banks are increasing their holdings in domestic banks (see table below). They have invested an estimated $17 billion since 2001.

Despite the opportunities that come with such a large and untapped market, investing in the sector is risky. There remains some uncertainty about the financial health of some banks, including high non-performing loans, and credit allocation culture and standards. But foreign banks seem to be striving to replicate the success of Bank of America, which bought shares in China Construction Bank before its very successful public offering in October 2005 in the Hong Kong stock market.

Sources: "Bankable Prospects," *Business China* (October 10, 2005); "Only the Bravest of Bankers Boldly Go to China," *USA Today* (January 19, 2005).

Chinese banks	Date	Foreign investors	Investment (US$ billions)	Stake %
Bank of Communications	Aug. 2004	HSBC	$2.10	20
Bank of China	Aug. 2005	Merrill Lynch, others	$3.10	10
Bank of China	Sept. 2005	Temasek (Singapore Gov. Fund)	$3.10	10
Industrial and Commercial Bank of China	Sept. 2005	Goldman Sachs, American Express, Allianz	$3.00	10
China Construction Bank	Sept. 2005	Bank of America	$3.00	9
Huaxia bank	Oct. 2005	Deutsche Bank	$0.33	10
Bank of China	Oct. 2005	UBS	$0.50	—
China Pacific Life Insurance	Dec. 2005	Carlyle Group	$0.41	25

Sources: JPMorgan Chase Securities (Asia Pacific); *China Economic Review.*
Note: — = not available

Table 2.7 Selected announced privatization and M&A deals in developing countries, 2005

Target (location)		Sector	Buyer (country)	Value (US$ billions)	Date
NBR (Ukraine)	P	Banking	Sberbank (Russia)	$0.12	Jan-06
Texakabanka (Kazakhstan)	P	Banking	Sberbank (Russia)	$0.13	Jan-06
Turk Telekom (Turkey)	P	Telecom	Saudi Oger (Saudi Arabia)	$6.50	Jul-05
Telsim (Turkey)	P	Telecom	Vodafone (UK)	$4.50	Dec-05
BCR (Romania)	P	Banking	Erste Bank (Austria)	$4.20	Dec-05
Cesky Telecom (Czech Republic)	P	Telecom	Telefonica (Spain)	$3.60	Apr-05
PTCL (Pakistan)	P	Telecom	Etisalat (UAE)	$2.60	Jul-05
Mobitel (Bulgaria)	P	Telecom	Austria Telekom	$1.97	Jul-05
Turkcell (Turkey)	P	Telecom	Alfa Telecom (Russia)	$1.60	Dec-05
Disbank (Turkey)		Banking	Fortis (Belgium)	$1.28	May-05
Aval Bank (Ukraine)		Banking	Raiffeisen International (Austria)	$1.03	Oct-05
Varna and Rouse Thermal Power Plant (Bulgaria)	P	Energy	RAO UES (Russia)	$0.97	Dec-05
Al Furat (Syria)		Oil	CNPC (China) & ONCG (India)	$0.57	Dec-05
Garanti Bank (Turkey)		Banking	GE Consumer Finance (U.S.)	$0.25	Aug-05
Jubanka (Serbia)		Banking	Alpha Bank (Greece)	$0.19	Jan-05
Albtelecom (Albania)	P	Telecom	A consortium led by Turk Telekom	$0.17	Jun-05
Telekom Montenegro	P	Telecom	Matav (Hungary)	$0.15	Mar-05
MISR Romaina Bank	P	Banking	Blom Bank (Lebanon)	$0.09	Dec-05
Podgoricka Banka (Montenegro)	P	Banking	Société Générale (France)	$0.02	Oct-05

Sources: Country Reports Economist Intelligence Unit; *Financial Times;* other news media.
P = privatization deals.

Box 2.4 Accession to the European Union and FDI

The recent enlargement of the European Union (EU) has had a salutary effect on FDI flows to Eastern Europe. Seven developing countries (the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, and the Slovak Republic) have joined the European Union; two others (Bulgaria and Romania) are expected to join in 2007. Croatia and Turkey may join in the future.

EU membership requires structural changes in national laws and regulations related to FDI. All member countries are expected to adopt a body of EU law (the *acquis communautaire*). Doing so improves the business environment in accession countries, and thus their attractiveness to investors, but it may also raise the cost of doing business because of higher environmental and labor standards. New EU members are also expected to amend their bilateral and multilateral treaties to comply with EU standards. Arrangements such as special zones and tax incentives must be gradually eased, which may lead some multinationals to decrease their investments.

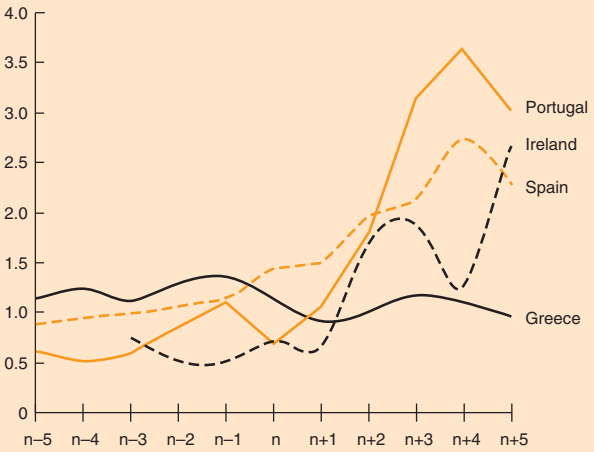
On the plus side, full membership in the European customs union reduces the cost of trade with the rest of Europe, a significant advantage in terms of attracting investors wishing to produce for the EU market. Adoption of the euro will reduce exchange rate risk, though it may also make the accession countries less cost-competitive. Finally, in some of these countries, privatizations related to the liberalization of the economy can be expected to continue to attract FDI.

The accession countries have access to EU Structural Funds intended for basic infrastructure development, human resources development, competitiveness and enterprise development, rural development, and environmental protection (Kalotay 2006). Use of such funds can be expected to bring significant improvements in the investment climate of these countries. Although implementation of structural changes is at a different stage in each accession country, all are expected to comply eventually with EU standards as highlighted above.

The impact of accession on FDI inflows varies with the degree of implementation of the new policies. FDI surged in Ireland, Portugal, and Spain following their accession, thanks to trade integration, whereas FDI in Greece did not increase (left figure). Despite the adoption of EU standards and improved investment climate, Greece lagged behind the other EU members even after accession.

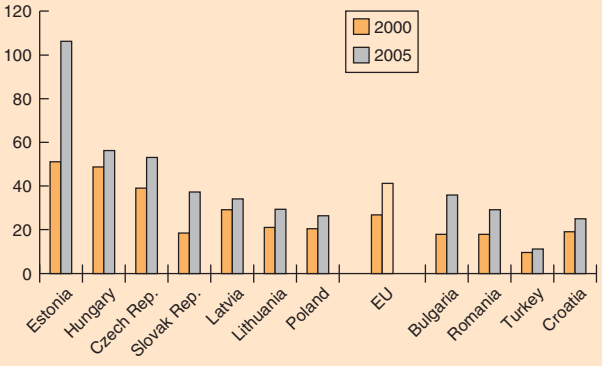
In newly acceding countries, particularly Romania, as well as candidates (Croatia and Turkey), progress in privatization has been providing opportunities for foreign investors. An example is the sale of the Romanian state bank, the largest privatization deal in the banking sector in 2005. In Turkey, recent privatizations raised the country's FDI to new heights in 2005 (right figure).

FDI as share of GDP (%)



Source: World Bank Debtor Reporting System.
Note: Accession year (n) = 1973 for Ireland, 1981 for Greece, and 1986 for Portugal and Spain.

FDI stock as a percentage of GDP



Source: World Bank Debtor Reporting System.

The impact of privatizations on FDI was particularly evident in many eastern European countries, particularly where upcoming or possible EU accession promises better investment climates, investment-related regulations and policies, and trade integration (box 2.4). However, even countries in the region that are not slated to join the European Union received notable levels of privatization-related FDI in 2005.

As in the 1990s, most large privatization deals occurred in banking or telecommunications. The sale of BCR, a Romanian bank, was the largest privatization deal in the banking sector in 2005 and the second-largest cross-border bank merger in a developing country since the Mexican Banamex deal of 2001.

Structural changes in emerging market debt

Emerging market debt markets are evolving. No longer are they dominated by the sort of dollar-denominated, high-yield sovereign debt typified by the Brady bonds of the 1980s. Today, the emerging asset class includes a cluster of instruments in both local and foreign currency that offer the capacity to tap dollar and euro investors alike and cater to the funding needs of both sovereign and corporate borrowers. Active trading is occurring on the cash and derivatives sides of the market. In this section, we take stock of three structural changes that are making emerging debt markets a more diversified, robust, and liquid funding source for both sovereign and corporate borrowers in developing countries. Those forces are the euro, credit default swap markets, and local-currency bond markets.

The euro's role is growing

Since its introduction on January 1, 1999, the euro has assumed an increasingly important international role. It has emerged as a principal issuing currency in the global debt market, as a vehicle for foreign exchange transactions, and as an important reserve currency for official holdings of foreign-exchange reserves. The elimination of exchange risk within the Euro Area has created a wide European market for euro-denominated securities, attracting both sovereign and private borrowers not only from within the Euro Area but also from other countries—among them emerging market economies such as Brazil, Colombia, China, Mexico, and Turkey. Today's euro-denominated bond market rivals the dollar-based fixed-income markets in several respects, including size, depth, and product range. As of June 30, 2005, outstanding international bonds (debt securities marketed and sold outside a borrower's own country) and notes issued in euros amounted to $6.2 trillion, or 45 percent of outstanding debt obligations (table 2.8). The share of international dollar-denominated bonds and notes, meanwhile, has steadily declined—from 49.4 percent in 1999 to 38.3 percent at the end of June 2005. The popularity of the Japanese yen as an issuing currency has dwindled; its share was only 3.6 percent in June 2005.

Thus far, the major beneficiaries of the rise of the euro bond market have been the new countries of the European Union. But although Poland, Hungary, and the EU accession countries have been especially active in the euro-denominated

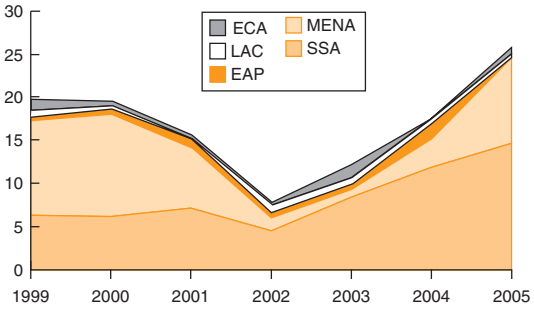
Table 2.8 International bonds and notes outstanding, by currency, 1999–2005

$ billions

	1999	2000	2001	2002	2003	2004	2005 (June)
Euro	1,500.1	1,862.1	2,429.1	3,610.5	4,930.3	6,233.3	6,166.4
U.S. dollar	2,610.6	3,243.9	3,870.9	4,202.4	4,709.4	5,020.8	5,199.1
Yen	478.3	417.4	389.3	429.1	508.1	518.7	486.0
Pound sterling	402.3	448.4	503.6	621.6	829.6	1006.3	1019.4
Others	291.5	275.4	302.2	398.2	530.4	662.6	717.3
Total Issues	5,282.8	6,247.2	7,495.1	9,261.8	11,507.8	13,441.7	13,588.2
Euro as % of total	28.4	29.8	32.4	39.0	42.8	46.4	45.4
U.S. dollar as % of total	49.4	51.9	51.6	45.4	40.9	37.4	38.3
Yen as % of total	9.1	6.7	5.2	4.6	4.4	3.9	3.6

Source: Bank for International Settlements Quarterly Review, December 2005, World Bank staff calculations.

Figure 2.12 Euro-denominated international bond issues, by region, 1999–2005



Source: Bank for International Settlements.

market, other developing countries, too, have found it a viable funding alternative. Among the emerging market entities that have issued sizable euro-denominated bonds are Mexico's PEMEX, the Korea Development Bank, and the governments of China and the Republica Bolivariana de Venezuela. In 2005, sovereign and corporate borrowers in emerging markets issued $33.7 billion in euro-denominated bonds in the international market, up from $21.7 billion in 2004 (figure 2.12). Much of the growth came from Argentina's issuance of $9.9 billion in bonds as a part of its debt workout. No euro-denominated issues came from Asia in 2005.

Several factors account for the increase in euro issues. The decision to issue bonds in foreign-currency markets is shaped chiefly by considerations of risk and cost, but also by a desire to diversify funding sources (for example, to match the issuer's trade patterns). Most prudent borrowers wish to match the currency denomination of their bonds to their assets and cash flow over the duration of the bonds. (The risk of a mismatch may also be covered using an appropriate derivative, such as a currency swap.) Borrowing costs are influenced by regulatory requirements (related, for example, to the withholding of tax from payments to investors) and market liquidity. Otherwise, the quantity of bond issues in a given currency is limited only by the funding requirements of borrowers, the preferences of institutional investors, and interest rate differentials or prospective exchange rate trends. The cost of issuing bonds in euros is determined by the cost of the benchmark (10-year Bunds) plus a spread (figure 2.13) over the benchmark.

Emerging market issuers from China, Colombia, Lebanon, Mexico, Philippines, Poland, Turkey, and Ukraine have issued bonds in euros because of lower interest rates on euro-denominated bonds than on comparable U.S.-dollar bonds.[9] Most of the difference is explained by the fact that 10-year euro interest rates have been lower than corresponding dollar rates. Spreads over the benchmarks are about the same for comparable issues in the two currencies.

For eastern European countries, the extent of present and future trade with Euro Area countries, and the prospective adoption of the euro by the accession countries, has undoubtedly played a part in the choice to issue debt in euros. Poland, for example, is part of the Euro Area, and its future assets will be denominated in euros; it trades already primarily with other EU countries. Decisions to issue in euros also depend on the terms of issuance and the liquidity of the market. Underwriting fees are roughly comparable for dollar and euro issues and may in fact be lower for euro issues.[10] Market liquidity for comparably sized issues is also similar. These factors all help to explain the dramatic growth in international debt denominated in euros since 1999.

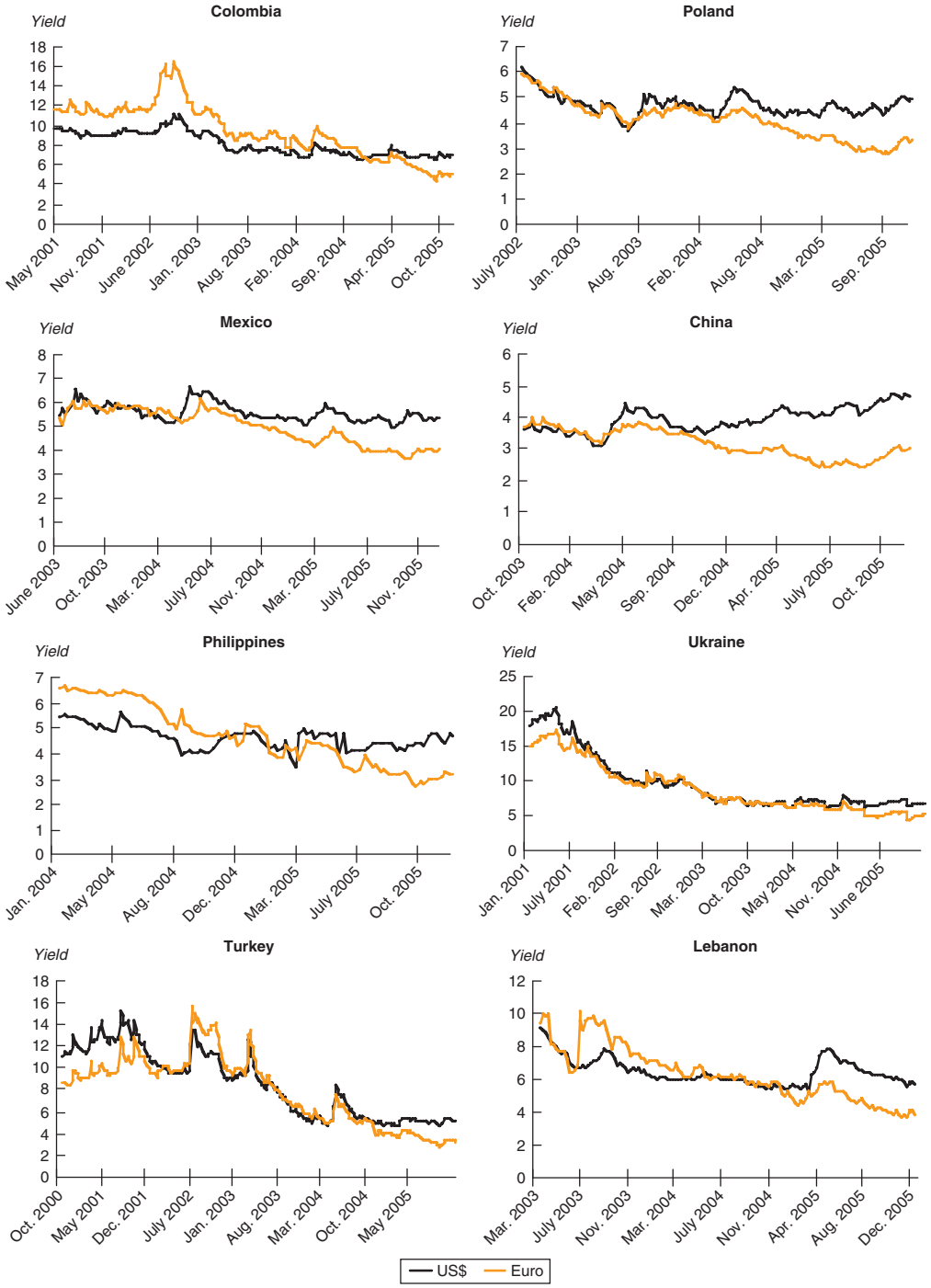
Credit default swap markets have grown substantially

As anticipated in the 2003 edition of *Global Development Finance*, trading in credit default swaps (CDSs), and especially Emerging Market Credit

Figure 2.13 Yields on U.S. and German 10-year government bonds, 1999–2005

Source: Bloomberg.

Figure 2.14 Comparison of euro-denominated and U.S. dollar-denominated emerging market sovereign bond issues



Source: Bloomberg.

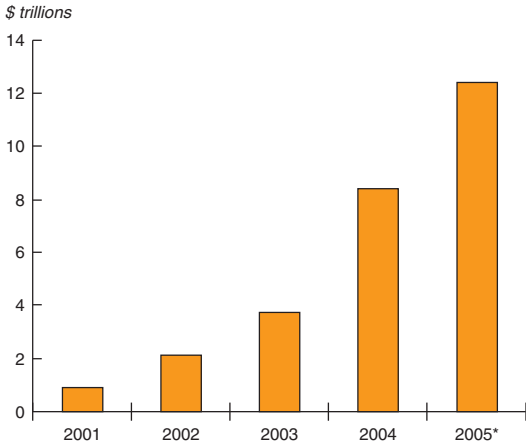
Default Swaps (EMCDSs), has grown substantially over the past three years, extending beyond the Republic of Korea, Mexico, and the Russian Federation to several new countries (Bulgaria, Peru, and the Philippines). A CDS contract, like an insurance contract, provides the buyer some protection against a specific risk, namely the risk of default. As a derivative, CDSs, the most popular type of credit derivatives, make it possible to trade credit risks separately from the underlying bonds or loans (box 2.5). They can help diversify risks in financial markets by allowing financial institutions to hedge risks embedded in their loan portfolio by transferring credit risks to other market participants, such as insurance companies and hedge funds. CDSs also enable institutional investors to take a position on a given credit without acquiring underlying assets in the cash market.

The growth of the global credit derivatives market since the early 1990s represents a major story of financial innovation, comparable, in many respects, to the development of the interest rate derivatives markets developed to manage financial risk in the 1980s. At the end of June 2005, the market had a total notional amount outstanding of around $12 trillion, representing an increase of almost 48 percent from $8.42 trillion at the end of 2004 (figure 2.15).

The CDS market is divided into various sectors defined by their underlying credit: corporates, banks, sovereigns, and emerging market sovereigns. A CDS may be based on a single credit or several. So-called single-name CDSs account for 60 percent of the market in credit derivatives. Their outstanding notional value was approximately $7.3 trillion at the end of June 2005 (BIS 2005).

Emerging market credit default swaps (EMCDS) have grown with the global expansion of CDS markets, although at a slower pace. But with a notional outstanding value of $350 billion, the EMCDS market is now larger than the cash segment of the EMBI Global (estimated to be around $250 billion). EMCDSs currently cover a broad range of sovereign credits and are actively traded. In 2003, annual trading volumes in EMCDSs were estimated at almost $200 billion, approximately 5 percent of total trading in emerging market credit (Emerging Market Traders Association 2003). In the same year, three-quarters of the volume of transactions concerned 10 countries: Brazil, Hong Kong (China), Republic of Korea,

Figure 2.15 The global credit derivatives market in notional terms, 2001–5



Source: International Swaps and Derivatives Association Market Survey, 1987–present.
* = as of end-June 2005.

Malaysia, Mexico, the Philippines, the Russian Federation, Taiwan (China), Turkey, and Uruguay. Quotes are now available on debt issued in more than 29 countries. Dealer banks estimate that trading volumes in EMCDSs now rival those in emerging cash bonds. For some countries, such as Hungary and Lithuania, the amount of outstanding CDSs dwarfs the amount of outstanding cash bonds by a factor of 10.

The growth of the EMCDS market has coincided with the sharp increase in emerging market financing over the 2003–5 period and has been driven largely by the same forces. It has also been aided by standardization of documentation and the development of CDS indices and index-related products that improve liquidity and price transparency (box 2.5). In 1999 and 2003, the International Swaps and Derivatives Association published standard CDS documentation that appears to provide a robust legal framework for the instruments. Although the CDS market has begun to mature, it has not yet been subjected to major stress testing.

Investor demand. The market is presently dominated by institutional investors seeking to invest in emerging markets by selling protection in the CDS market as an alternative to purchasing cash bonds. CDSs are not subject to special features that may affect the yield of a particular bond, and the standardization of CDS contracts makes it easier to compare

Box 2.5 Credit default swaps

A credit default swap (CDS) is a derivative contract transacted using standard documentation developed by the International Swaps and Derivatives Association. In a contract, one party (the protection buyer) pays a periodic fee to another party (the protection seller) in return for a promise of compensation in the event of default (or other adverse credit event) by a specified firm or sovereign, known as the "reference entity," which is not a party to the CDS. The CDS transfers the credit risk of that entity from one party to another. Corporate bond investors generally buy CDSs to insure against default by the issuer of the bond, but these flexible instruments can be used in many ways to customize exposure to corporate credit.

CDSs now exist for more than 1,500 "reference names" in every bond category. Liquidity is provided by the market makers, which include commercial banks, insurance companies, asset managers, and, more recently in a significant manner, hedge funds. Standard trading sizes range from $10–20 million (notional value) for investment-grade credits and $2-5 million for high yield. The most liquid CDS contracts carry a maturity of five years.

The single-name CDS applies to a single entity and is the most common form of this instrument. Other forms include tradable indices, options, first-to-default or tranched basket products, cash collateralized debt obligations (CDOs), and synthetic CDOs. There are two families of tradable CDS indices: the Dow Jones CDX indices for North America and the emerging markets, and the Dow Jones iTraxx for Europe, Japan, and Asia. The first comprises equally weighted CDSs on 125 reference entities.

A CDS transaction depends on a clearly defined credit event and on valuation methodology. The market generally uses three credit events (failure to pay, restructuring, and bankruptcy) as triggers for contractual protection payments. Market practitioners are converging in their views on modeling and valuing single-name CDSs. Pricing techniques currently in use are derived from reduced-form models that apply to defaultable bonds, as presented in Jarrow and Turnbull (1995) and Duffie (1999).

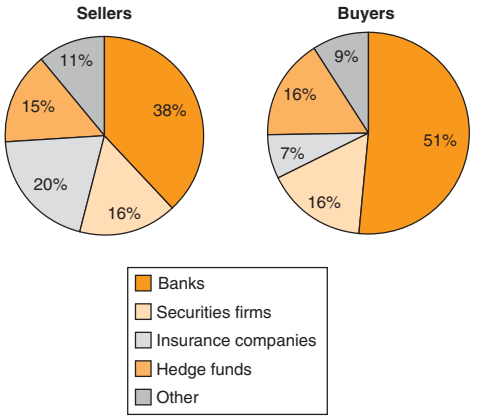
There have been disputes in the past over whether a debt restructuring was to be considered a default. According to definitions provided by ISDA in 2003, a restructuring is deemed a default if the obligations become less favorable to the holders.

credit risk across countries. EMCDSs are also more liquid than emerging market cash bonds. And, since a large segment of emerging market investors tend to buy and hold, investors wishing to enter the market may find it difficult to invest in a specific country's bonds. In the context of buoyant demand, investors can establish a position more quickly by buying EMCDSs than by going through the underlying cash markets. Furthermore, EMCDSs are not subject to withholding or capital gains taxes in the United States. In sum, for actively traded issues, EMCDSs tend to enjoy a status similar to that of emerging economies' benchmark bonds, with a yield curve for maturities up to 10 years. EMCDSs also provide investors with a slightly higher yield than bonds.

Market participants. The chief buyers of protection in CDS markets are major international commercial banks, hedge funds, and other institutional investors seeking to eliminate credit risk from their portfolios (figure 2.16). Commercial banks are attracted by the fact that banking regulators in most developed countries do not require loans hedged with purchases of CDSs to be fully backed by capital reserves, thus freeing capital for other uses. Institutional investors like the fact that CDSs enable them to take a position on an operation without subjecting themselves to the regulatory restrictions that would govern a cash investment in the underlying credit. The key sellers include most institutional investors such as insurance companies, monoline insurers (financial guarantee companies), hedge funds, and mutual funds.

Liquidity. The top 10 dealers, all large investment banks, account for about 70 percent of CDS sales (Fitch Ratings 2004). Trading in the EMCDS market is influenced by liquidity in the repo markets for the underlying bonds. The market practice is for dealers to intermediate in a two-way market without taking a position and without the need to rely on the cash market to hedge themselves. Advances in credit-risk management have enabled dealers to take selected positions and hedge their position on a portfolio basis, relying heavily on correlations between classes of emerging market issuers. Although there is no direct relation between

Figure 2.16 Credit derivative participants, 2004



Source: British Bankers Association 2003/2004, Credit Derivatives Survey.

prices in cash markets and the prices of CDSs, the underlying bond prices provide essential references for the determination of EMCDS premiums.

Liquidity in EMCDS markets is driven by the large and growing number of participants—hedge funds in particular. Liquidity has been improving over the past two years for CDSs based on issues in a broad range of countries.

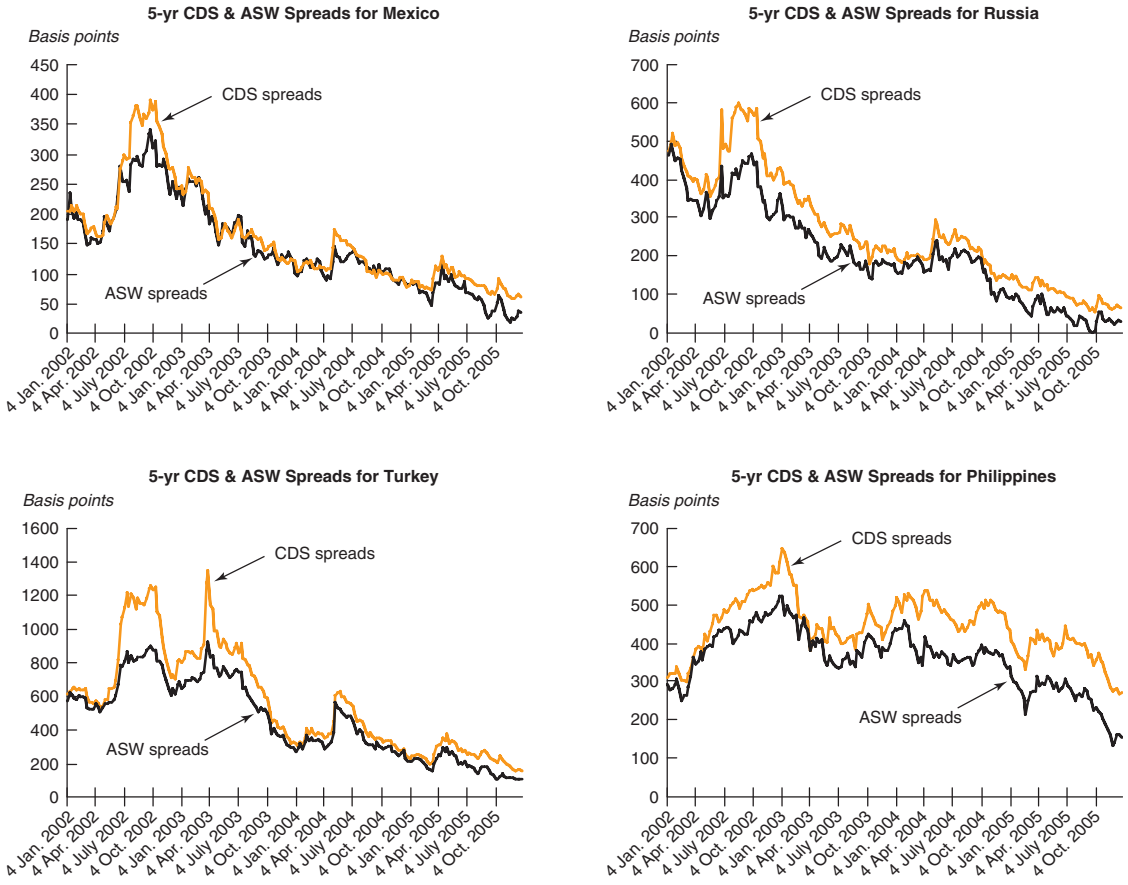
There are now 29 names in the liquid EM.CDX Diversified CDS index, a good indication of the number of names that are particularly easy to trade. The bid–ask spread is typically around 10 basis points, with a transaction size in the range of $10 to $20 million. For liquid names such as the Republic of Korea, Mexico, and the Russian Federation, the spread narrows to 5 basis points; it can reach 20 to 30 basis points for less traded names such as Chile, Morocco, and the Philippines.

Price discovery. EMCDS and bond prices tend to move in tandem, although they can deviate for short periods (figure 2.17).[11] The *default swap* basis is the difference between default swap spreads and bonds' asset swap spreads (spreads relative to the Libor).[12] There are several fundamental reasons why the default swap basis is normally positive. The most compelling is the traditional principle of "absence of arbitrage opportunity." Were the basis to become negative, it would offer a risk-free gain to anyone investing in a country's bond while buying protection for the same maturity.[13] It is not clear whether the CDS price or the cash price of the underlying bonds is the leading price. This will vary depending on the market context and the difference among the participants in the markets. When spreads follow the long-term spread-narrowing trend, traditional investors in emerging bonds will set the price. If new information emerges that justifies a reappraisal by the market, CDS premiums may be adjusted much more rapidly than the bond spread, resulting in a sudden, if temporary, widening of the basis. The explanation offered here is that hedge funds will react—and perhaps overreact—more promptly to news than will traditional cash investors. With the broadening of the market and the increasing presence of hedge funds and banks' proprietary trading desks, the bias is toward active trading, which should improve price discovery in the CDS market.

The growing EMCDS market, while immature, has the potential to benefit emerging economies. EMCDSs are very liquid and more available than emerging market cash bonds, most of which are held until maturity. Many participants with strong views on emerging names, including hedge funds and banks' proprietary desks, have joined the EMCDS market so as to engage in active value trading in credit-risk premiums. Market data show that CDS spreads react more promptly to market developments than do corresponding cash market spreads (and may even overreact to adverse news). On balance, that alertness means greater efficiency in credit pricing and stronger market discipline—in other words, a reduction in the asymmetry of information between lender and borrower, something from which emerging market finance can benefit.

EMCDS markets are highly liquid and have shown strong resilience to idiosyncratic shocks, such as Argentina's default. However, despite considerable improvement in transparency under the auspices of ISDA, transparency in CDSs still lags behind emerging bond markets where, similarly trading takes place only in the private, over-the-counter market. The market has expanded to include new names, such as Peru, the Philippines, Slovakia. It is reasonable to expect corporate names to join as well, as private entities in emerging market economies tap increasingly global debt markets. The great concentration of the market in

Figure 2.17 Five-year CDS and ASW spreads for selected countries, 2002–5



Sources: Bloomberg and World Bank staff calculations.
Note: ASW = asset swap; CDS = credit default swap.

the hands of a small number of dealers poses a risk, however, that an adverse credit event in a major financial center would have potentially serious repercussions on CDS market liquidity.

Local-currency bond markets provide important new sources of capital

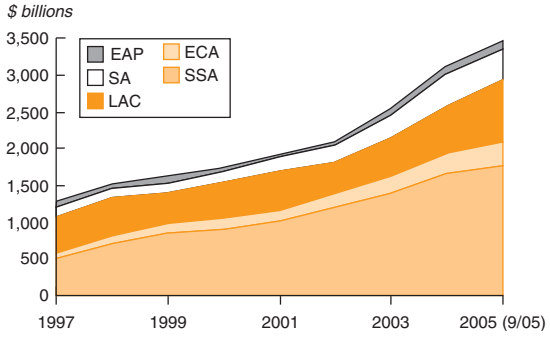
The rapid development of local-currency bond markets in emerging market economies signifies governments' successful responses to the string of financial crises of the 1990s. Local-currency bond markets, now the fastest growing segment of emerging market debt, are in many cases helping to correct mismatches of currencies and maturities in the countries affected, thereby contributing to greater financial stability. From a global perspective, the local-currency bond markets in emerging economies are still relatively small, accounting for just 7.9 percent of global domestic debt market as of September 30, 2005. Local currency bond markets are concentrated in eight countries (Brazil, China, India, the Republic of Korea, Malaysia, Mexico, Turkey, and South Africa) that together make up three-quarters of the entire market.

Robust domestic bond markets enable monetary authorities to conduct monetary policy through open-market operations. It is widely understood that well-developed capital markets enhance financial stability by diversifying both the avenues for investing savings and the sources of funding for investment activities beyond the banking sector. A vibrant bond market, supported by well-functioning and well-regulated derivative markets, enables market participants to better

manage their financial risks through swaps and futures and attract foreign investors. Furthermore, domestic debt instruments with long duration are also ideally suited for infrastructure projects, especially those conducted by subsovereign borrowers earning revenues in local currencies.

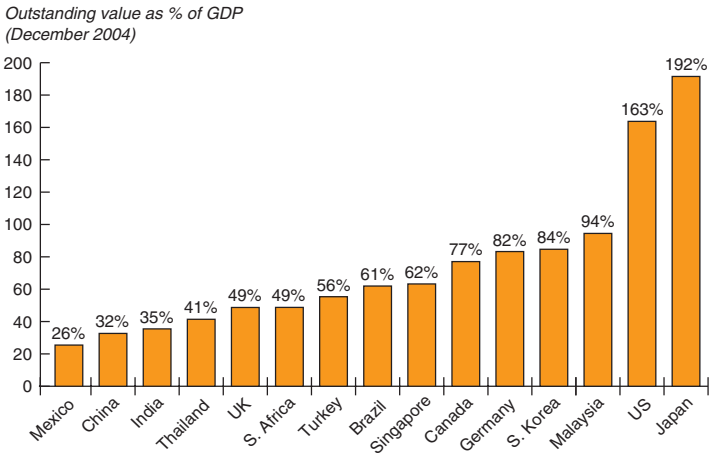
Driven largely by domestic institutional and individual investors, local-currency debt markets have grown rapidly, moving from an aggregate outstanding level of $1.3 trillion at the end of 1997 to $3.5 trillion in September 2005 (figure 2.18). The countries of East Asia have led the way—the region accounts for 51.7 percent of total local-currency debt in emerging markets, followed by Latin America (24.3 percent), Eastern Europe (12.2 percent), South Asia (9.1 percent), and Africa (2.8 percent).

Figure 2.18 Trends in domestic debt securities in emerging markets, by region, 1997–2005



Sources: Bank for International Settlements data and World Bank staff calculations.

Figure 2.19 The size of the domestic bond market in selected countries



Sources: Bank for International Settlements data and World Bank staff calculations.

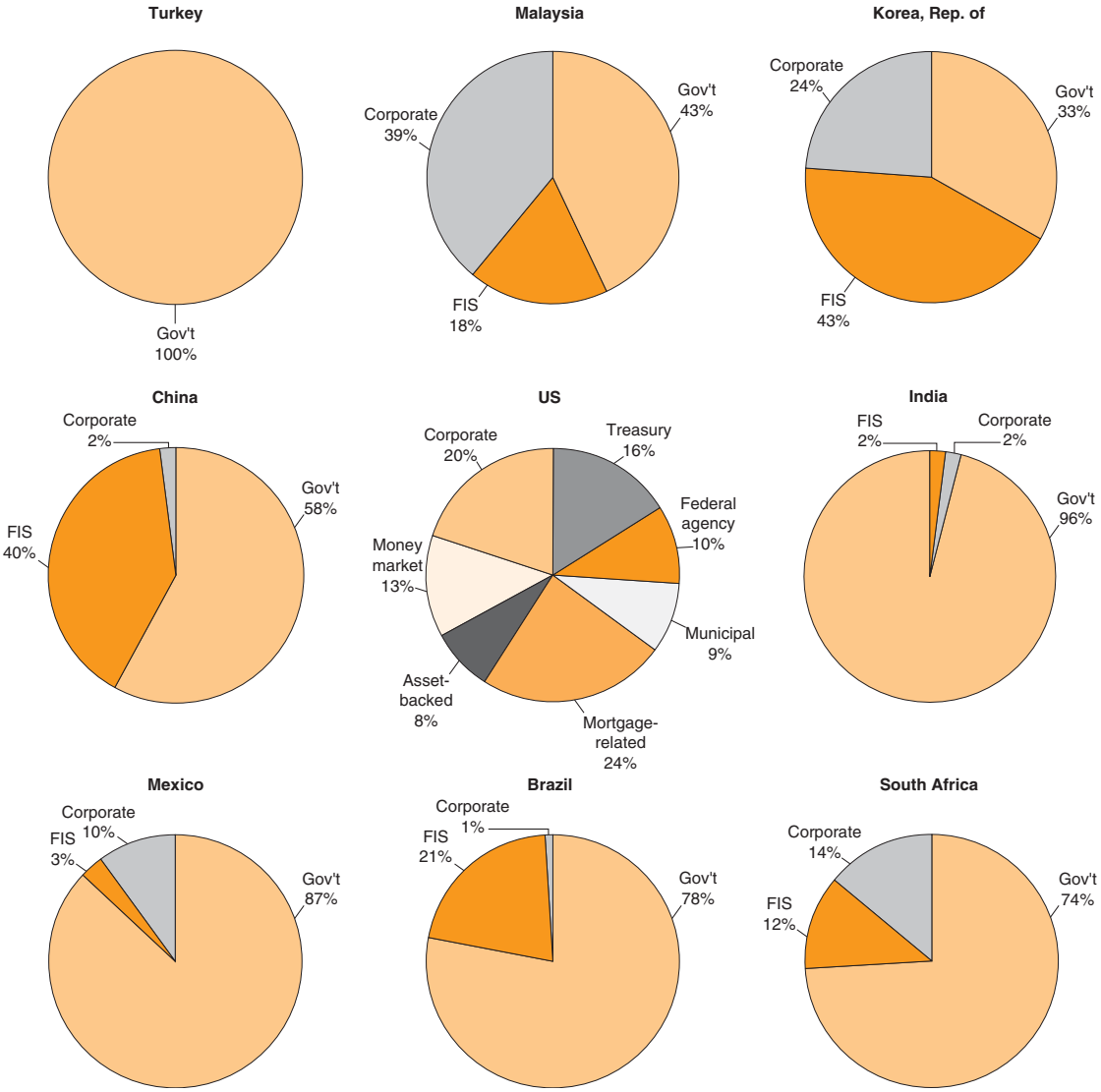
Local currency bond markets in developing countries are diverse in their size, issuers, liquidity, supporting infrastructure, and degree of openness to foreign investors. Ten of the fifteen largest local-currency bond markets in the world (measured as a percentage of GDP) in 2004 were in emerging markets (figure 2.19). The three largest markets (China, India, and Mexico), while small relative to GDP (below 35 percent), have substantial growth potential in light of recent reforms undertaken by these countries.

Governments are the largest issuers in emerging local-currency bond markets, accounting for 65 percent of local-currency bond markets in September 2005. Governments are followed by financial institutions (25 percent) and corporations (10 percent). Relative to the United States—the world's most diversified local bond market—bond markets in emerging economies are still highly concentrated in government bonds (figure 2.20). The challenge for emerging market countries is to further diversify their markets by building up other segments.

The bond markets in East Asia grew rapidly from $400 billion in 1997 to $1.6 trillion by September 30, 2005. Since 1997, governments in East Asia have issued large amounts of local-currency bonds to restructure the banking system and revive the corporate sector. This has helped establish risk-free interest rate benchmarks that enabled the corporate sector, seeking to restructure its balance sheets, to issue bonds in the local market. Bond-market development in East Asia gained further momentum in December 2002 with the launching of the Asian Bond Market Initiatives (ABMI) by the ASEAN+3 group.

Corporate bond markets have been more difficult to establish than government bond markets in emerging markets because of the small issue size, lack of a yield curve, difficulties with proper disclosure of accounting information, and general weakness in corporate governance. However, several countries, including Chile, the Republic of Korea, and Malaysia have been able to build relatively large corporate bond markets over the past decade. In the Republic of Korea, the stimulus for developing a functioning corporate bond market

Figure 2.20 Bond market profile in selected countries, September 2005



Sources: Bank for International Settlements Quarterly Review, December 2005, Bond Market Association, and World Bank staff calculations.
Note: FIS = financial institutions.

came in the aftermath of the 1997–8 crisis. Before 1997, all corporate bonds in Korea had been guaranteed by commercial banks, which masked the differential credit risk of corporate bonds.

The development of *municipal bond* markets is likely to become more important, given the growing role of subnational bodies in financing infrastructure projects, which have revenues and expenses in local currencies.

The investor base widens for local-currency bonds

Foreign investors. Until recently, the domestic bond markets of major emerging markets were largely closed to foreign investors. The obstacles to investment took many forms—administrative, regulatory, fiscal, infrastructural, and informational. Since the East Asian crisis of 1997, however, these markets have become much more open,

Box 2.6 The role of multilateral development banks in developing local-currency bond markets

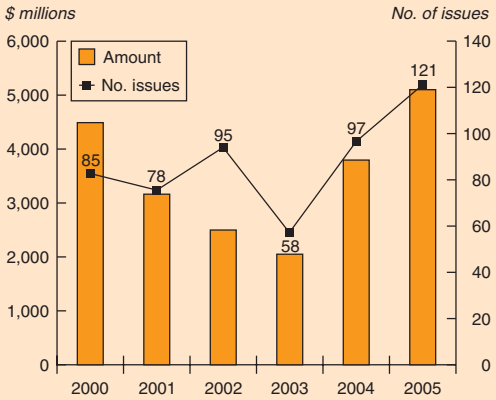
Multilateral development banks (MDBs) meet part of their general funding requirements by issuing bonds denominated in the currencies of emerging markets. Such issues by MDBs can be standard setters in local-currency bond markets. Although they are likely to be small relative to the size of the domestic bond market, they can play a catalytic role by removing the policy and regulatory impediments to foreign investment and accelerating the development of necessary market infrastructure. They can also help create a long-term benchmark, which in turn may facilitate issuance of local-currency bonds by corporations.

During 2000–5, the total raised by MDBs in 24 markets through 534 bond issues was $21.4 billion (see figure and table). MDB issuance gained momentum in 2005, with 121 issues totalling $5.2 billion. The largest issuer was the European Investment Bank, which accounted for $10 billion, or 47 percent of total issuance, followed by the World Bank ($2.7 billion). The Inter-American Development Bank (IDB) and European Bank for Reconstruction and Development (EBRD) were also active issuers. The Asian Development Bank (ADB), which recently became active, has issued bonds denominated in Indian rupees, Malaysian ringgits, Chinese yuan, Philippines pesos, and Thai baht. Overall, most of the local-currency borrowing by the MDBs occurred in Hong Kong dollars, Taiwanese dollars, South African rand, Turkish lira, and Polish zlotys.

Successful bond issuance by MDBs requires several supporting policies as well as market infrastructure. These include: (i) the existence of a clearly defined and sound regulatory framework; (ii) a disclosure-based regulatory system; (iii) an efficient clearing and settlement system; and (iv) the existence of an investor base, particularly institutional investors such as pension funds and insurance companies. Success in local markets also requires a nondiscriminatory tax structure and exemption from exchange controls. The experience of Malaysia, and Mexico in facilitating issuance of bonds by MDBs should be of interest to other emerging economies.

Source: Dealogic Bondware.

Local-currency bond issuance by multilateral development banks, 2000–5



Source: Dealogic Bondware.

Bond issuance in non-G-10 currencies by supranationals, January 2000–October 2005

Issuers	No. of Issues	Amount ($ millions)	Percent
European Investment Bank—EIB	256	10,054	47.0
World Bank	91	2,722	12.7
Inter-American Development Bank—IDB	49	2,257	10.5
European Bank for Reconstruction & Development—EBRD	50	1,628	7.6
International Finance Corp.—IFC	19	1,550	7.2
Nordic Investment Bank	38	1,490	7.0
Asian Development Bank	9	808	3.8
Council of Europe Development Bank	4	348	1.6
African Development Bank—AfDB	4	221	1.0
Central American Bank for Economic Integration—CABEI	9	164	0.8
Eurofima	5	152	0.7
Total	**534**	**21,395**	**100**

Source: World Bank staff estimates based on Dealogic Bondware.

especially in East Asia, where many impediments to foreign investment have been removed (Takeuchi 2005). The only major markets in Asia that still limit access are China and India, where fixed-income investments are allowed only by qualified foreign institutional investors up to a ceiling of $10 billion. Several multilateral development banks played key roles in removing obstacles to foreign investment in developing markets by issuing bonds in the currencies of China, Thailand, Malaysia, Mexico, and the Philippines (box 2.6).

Gradual but steady liberalization of capital accounts in several developing countries has led to a general increase in investment interest by foreign investors (see chapter five). In the past, institutional investors in developed countries, especially the United States and United Kingdom, did not view emerging market equity or bonds, regardless of their denomination, as a separate asset class. Instead, they were considered as a small component of broad indexes such as Morgan Stanley's All Country World Index. Most institutions would allocate a small amount of their investments to emerging market equity. In the case of emerging market debt, the allocation was usually made as a part of the Lehman Aggregate Plus Index or the High Yield Index. However, returns from U.S.-dollar-denominated emerging market debt were attractive, and some investors have been willing to assume the associated risks to obtain attractive risk adjusted returns.

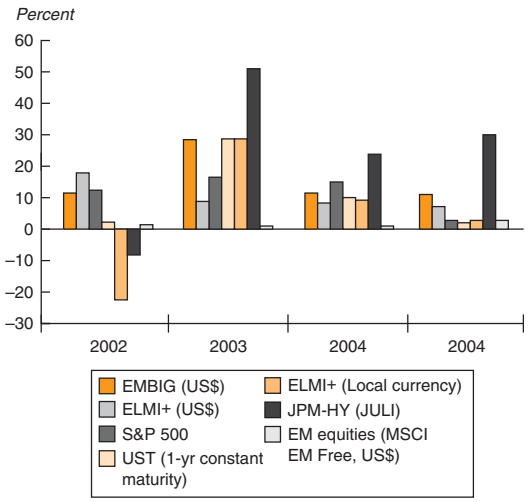
Local-currency bonds were rarely considered by institutional investors, since they involved high currency convertibility risk, on top of the interest rate and credit risks associated with fixed-income investments. However, efforts by several countries to build their domestic bond markets have begun to bear fruit. Their recent performance, as well as the potential for currency appreciation in several markets, is drawing the attention of growing numbers of fund managers. Investments by foreign institutional investors in local-currency bond markets have been facilitated by the introduction of several local-currency bond indexes such as JPMorgan Chase's Emerging Market Local Currency Index (ELMI) and the Lehman Global Aggregate Index, which includes a small percentage of emerging market bonds. During 2000–5, the JPMorgan Chase ELMI+ (Local Currency) index generated an annual average return of 9.9 percent, well above the average return of 1.91 percent on the U.S. Treasury's one-year, constant maturity bills (figure 2.21).

Investment in U.S. dollar–denominated debt, as measured by the EMBI Global index, outperformed the ELMI+ (Local Currency), with an average annual return of 15.31 percent from 2000 to 2005. However, the volatility of the local-currency bond was less than that of the EMBI Global during the same period (figure 2.22).

Although data are limited, it appears from the IMF's 2003 consolidated portfolio survey that foreign flows to local-currency bond markets have been relatively modest in comparison with the size of these markets. Flows are reported to be higher in 2005, but no segregated information is available.

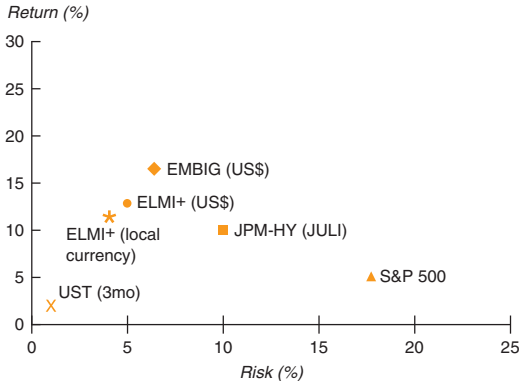
In contrast to the East Asian approach of opening domestic bond markets to foreign investors, the major countries of Latin America and the Russian Federation have taken a different approach, issuing bonds denominated in local currency in the international markets (Tovar 2005). In November 2004, the Colombian government raised the equivalent of $375 million by issuing a

Figure 2.21 Performance of local-currency bonds (ELMI+) against major indexes, 2002–5



Sources: JPMorgan Chase, Datastream, Bloomberg.

Figure 2.22 Returns vs. volatility of selected bond indexes, 2000–5



Sources: JPMorgan Chase, Datastream, Bloomberg.

six-year bond. This was followed in January 2005 by a second issue for $124 million. In September 2005, Brazil issued global bonds totaling 3.4 billion reals ($1.5 billion) with a maturity of 10 years and a 12.5 percent coupon. By issuing local-currency bonds in international markets, these Latin American countries have tried to tap international investors while changing the currency mix of their debt portfolio.

The barriers facing foreign investors seeking to enter the domestic bond markets of countries (such as Brazil and Colombia) that have opted to issue local-currency bonds in international markets include registration requirements and withholding taxes. In February 2006, Brazil took several steps to increase the attractiveness of its domestic bond markets to foreign investors. These included exempting investors from transaction taxes and withholding tax on interest income, and permitting tax-free migration between equities and fixed-income instruments.

Domestic investors. Domestic investors, both institutional and individual, thus far have been the major investors in local-currency bond markets, especially government bonds. Bond investments have become an acceptable and preferred asset class in the portfolios of institutional investors (pension funds, insurance, and mutual funds) in emerging markets because of the high volatility experienced in emerging equity markets after 1997. Pension funds and insurance companies have long-term liabilities, best funded by high-quality debt instruments such as long term government bonds. Retail investors, too, look for relatively safe instruments that will nevertheless bring them higher yields than bank deposits.

The funds managed by institutional investors in emerging markets have grown in recent years because of several factors—among which are the excess of national savings over national investment, particularly in several East Asian countries; pension reforms (in Chile, Mexico, and Thailand, for example); rapid growth of the insurance industry in many countries, especially China and Thailand; and growth of collective investment schemes (mutual funds and other similar arrangements) in most emerging markets covered in this chapter.

At the end of June 2005, the East Asian central banks, through the Executives' Meeting of East-Asia and Pacific Central Banks (EMEAP), had invested $3 billion in the Asian bond markets through two funds. Although they represent a relatively small share of official reserves, these investments are expected to play a catalytic role in the development of domestic bond markets. The larger of the funds, the Asian Bond Fund (ABF2), was launched in December 2004 to invest $2 billion in local currency bonds. ABF2 has two components: a Pan-Asian Bond Index Fund (PAIF) and a Fund of Bond Funds (FoBF). The PAIF is a single bond fund investing in sovereign and quasi-sovereign local-currency-denominated bonds issued in the eight EMEAP markets. The FoBF is a two-layered structure with a parent fund investing in eight subfunds, each of which will invest in sovereign and quasi-sovereign local-currency-denominated bonds issued in the EMEAP economies. The ABF2 has started to invest in domestic bond markets, helping in the process to create eight local-currency bond market indices.

Local-currency bond markets present new opportunities and new challenges

Bringing local currency bond markets in emerging economies up to the standards of markets in developed countries will require concerted efforts in several areas. Countries at an *early stage* of bond-market development should focus on the infrastructure of the primary market (issuance) and related markets. The pertinent areas include: (1) risk-free interest rate benchmarks; (2) a well-functioning primary dealer system (a network of financial intermediaries); (3) credible credit ratings; (4) efficient trading platforms; (5) sound and safe clearing and settlement systems; and (vi) a diversified investor base.

Countries at an *advanced stage* of market development will need to undertake additional reforms to improve the efficiency of their bond markets. These reforms include: (1) strengthening primary dealer systems by offering them liquidity supports through repurchase agreements, in return for market making; (2) creation of a securities borrowing and lending facility to enable primary dealers to borrow securities from institutional investors for trading purposes; (3) establishment of a central information system to disseminate bond-market information similar to those functioning in the Republic of Korea, which enable implementation of market-to-market valuation of fixed-income instru-

ments; (4) diversification of local-currency bond markets through promotion of corporate and municipal bonds; (5) expansion of an investor base for bond markets; (6) development of derivatives markets to facilitate risk management; (7) increased participation of foreign investors through removal of impediments such as withholding tax and capital controls.

The efforts made by the East Asian countries in developing their domestic bond markets have met with some early success and could provide a case worth watching by other emerging economies.

Foreign institutional investors provide benefits to local bond markets in several ways. First, they can increase liquidity. Second, given their large capital base and experience in fixed-income markets, they can play the role of primary dealers and market makers, the absence of which is a major gap in most emerging markets. Third, they can improve the efficiency of the market by deploying state-of-the-art technology and services available in the international capital markets. Finally, they can introduce new investors to the domestic market, help broaden the investor base, and play a key role in developing capacity in domestic capital markets.

However, growing local-currency debt markets present new challenges to decision makers. Government debt denominated in the local currency will need to be managed with as much care as debt denominated in international currencies and on an integrated basis. The establishment of an independent debt-management office should be considered to manage both domestic and international debt within the country's overall macroeconomic framework. In this regard, the experiences of Sweden and New Zealand could be of interest to developing countries. Capacity building in risk management (currency, interest rate, and duration) will also be needed to ensure that public debt is properly managed.

Prospects for private capital flows

Private capital flows to developing countries increased sharply in 2005, but the outlook through 2007 is mixed. Debt flows are likely to remain subdued because of accumulated foreign exchange reserves, substantial repayments, and prefunding of future requirements by developing countries during 2005. In February 2006, Brazil, Colombia, and República Bolivariana de Venezuela announced debt-buyback programs that together could lower their foreign currency–denominated external debt by about $16 billion (see the annex to this chapter for a discussion of buybacks). Meanwhile, Mexico announced another buyback in March, repurchasing $2.9 billion of its less-traded global bonds. These buybacks are in line with the liability-management and deleveraging practices that many developing countries have pursued over the past few years to improve the terms and risk profile of their external debt. Buybacks could be especially significant for Brady debt—only about $9 billion of Brady bonds (about 6 percent of the original issue) will remain outstanding after Brazil and República Bolivariana de Venezuela conclude their buybacks. The supply of foreign currency bonds is likely to be limited, except from a few countries (Bulgaria, Hungary, Turkey) with large external financing requirements. Turkey alone is expected to account for one-third of the external financing demands of emerging markets. In 2005, several countries were successful in altering their debt profile by refinancing foreign debt through domestic bond markets. In coming years, some developing countries—among them Brazil, Colombia, Malaysia, Mexico and Thailand—are likely to raise most of their funds in domestic bond markets. Therefore, sovereign issues in the international bond market are likely to become more scarce. Banking flows are also likely to taper off from their record level in 2005, as mergers and acquisitions in the oil industry are completed.

However, the supply of bonds from corporate issuers is likely to increase with the revival of private investment in Asia and Latin America. Demand from international investors is likely to be buoyant, because yields on corporate bonds are higher than those on sovereign issues. Foreign flows into some local-currency bond markets are likely to increase because of the limited supply of external debt denominated in foreign currency, and because of the potential for currency appreciation.

FDI flows are expected to grow, although at a slower rate than the last year. High commodity prices are likely to boost investment in extractive industries, while ongoing liberalization in China,

India, and other countries should increase FDI in the services sector. Given fundamental macroeconomic improvements in several developing countries and projected annual growth of around 5 percent, the prospects for equity markets in developing countries are better than for those of the developed countries. This bodes well for future equity flows into emerging markets in 2006–7. However, the pace will be more measured than in 2005.

Annex: Commercial Debt Restructuring

Developments in 2005 and the first quarter of 2006[14]

The period under review saw major debt-management activities in developing countries, some of which were resolutions of previously defaulted debts, such as the conclusion of Argentina's debt-restructuring program and Iraq's restructuring of debt incurred under Saddam Hussein's reign. Some of these debt-management activities involved stressed-debt restructuring, such as the Dominican Republic's $1.1 billion debt-exchange operation. Others involved another wave of Brady buyback operations and announcements, which will retire most of the remaining Brady bonds outstanding. Brady retirements are in line with the liability-management practice and deleveraging that many developing countries have pursued over the past few years to improve their external debt terms and risk structure.

Brady bond restructuring

Brazil. Two buyback operations in 2005 retired $5.6 billion of Brazil's Brady bonds. In July 2005, Brazil used the proceeds from a new 12-year global bond (A-bond) to buy back $4.5 billion of its outstanding C-bonds (or capitalization bonds). The global A-bond issue was priced at a premium and carried a coupon of 8 percent. In October 2005, Brazil completed its second buyback operation, retiring the remainder of its C-bonds (worth about $1.1 billion). In February 2006, Brazil announced that it will buy back all of its remaining Brady bonds by exercising the embedded call options, effectively marking the end of the country's restructured debt era.

Bulgaria. Two buyback operations in 2005 retired all of Bulgaria's remaining Brady debt outstanding (about $1.5 billion). In January 2006, Bulgaria exercised embedded call options to fully retire just under $938 billion of interest arrears bonds (IABs) that were to expire in 2011. In July 2005, Bulgaria also bought back all of its front-loaded interest reduction bonds (FLIRBs), worth about $608 million, in an operation generating a $648 billion reduction in outstanding debt and about $120 million in debt-service expenses over the next 7 years. By retiring the entire outstanding FLIRBs and IABS, Bulgaria fully redeemed its Brady bonds, issued in 1994 to restructure its debt to the London Club of commercial creditors.

República Bolivariana de Venezuela. In February 2006, República Bolivariana de Venezuela announced plans to buy back $3.9 billion worth of outstanding Brady bonds, leaving only $487 million outstanding in the market, in an operation to be financed by the country's large oil revenues and international reserves. According to the government, the deal will reduce external debt to 21 percent of GDP by end-2006, down from 23.4 percent at end-2005. This operation will also enable the government to realize $670 million in interest payment savings in 2006, and a further $600 million per year in interest and principal savings through 2020. The country had previously bought back $3.8 billion of Brady bonds in 2003 and an additional $2.2 billion in 2004.

Other bond market restructurings

Argentina. In June 2005, Argentina finally completed a debt-restructuring operation involving more than $100 billion in defaulted bonds and interest arrears. Argentina swapped about $62.3 billion in defaulted bonds and $680 million in interest payments for $35.3 billion in 11 new bond issues

denominated in yen, euros, dollars, and pesos. This operation resulted in a 75 percent net present value reduction in principal for bondholders, with about 76 percent of bondholders accepting the deal. According to government estimates, the transaction is expected to result in debt-payment savings of more than $67 billion.

Colombia. Two buyback operations in 2005–6 retired about $1.1 billion of Colombia's external debt. In September 2005, Colombia used the proceeds from a reopening of its 20-year global bond to buy back $497 million of dollar-denominated bonds maturing in 2007, 2010, 2011, 2016, 2027, and 2033, and 136 million in bonds maturing in 2008 and 2011. This operation yielded savings of $135 million in interest payments and improved the country's dollar yield curve. In March 2006, the Colombian government bought back about $601 million of dollar- and euro-denominated bonds maturing between 2006 and 2011, using $365 million of cash on hand and $306 million of the proceeds from the reopening of a 2015 peso bond.

Dominican Republic. In May 2005, the Dominican Republic restructured about $1.1 billion of its external debt through two exchange offers, which converted $500 million of 2006 bonds into new 5-year amortizing bonds, and $600 million of 2013 bonds into new 11-year amortizing bonds. The new 5-year and 11-year bonds carry coupons of 9.5 percent and 9.04 percent, respectively. The exchange deal extended the maturities of the country's outstanding bonds by 5 years and resulted in about $100 million of interest savings in 2005 and 2006. Approximately 94 percent of eligible bondholders participated in the exchanges. In July 2005, the Dominican Republic reopened the exchange offer, which boosted participation to about 97 percent.

Iraq. In October 2005, Iraq concluded a two-phase commercial debt restructuring with small creditors holding $35 million or less of debt incurred under Saddam Hussein's reign. Of about $1.6 billion in eligible claims, it is estimated that 71 percent of creditors accepted the deal and only 8 percent of creditors elected to reject. In January 2006, the government of Iraq completed a debt-exchange operation with commercial creditors holding more than $35 million of debt incurred under Saddam Hussein's reign, swapping about $14 billion in defaulted debt for a new eurobond issue worth bout $2.7 billion. In accordance with a December 2005 agreement, the holder of each $100 of tendered claims received a new bond with a $20 face value, carrying a coupon of 5.8 percent and amortizing between 2020 and 2028. Some creditors received a floating rate note paying 50 basis points over Libor in lieu of the new bond. Further notes up to an additional $800 million may be issued for other eligible outstanding claims on the same terms.

Mexico. In October 2005, the Mexican government carried out a debt-management operation to retire about $1.4 billion of global bonds with 10 different maturities between 2007 and 2033 through open-market repurchase. In November 2005, Mexico became the first developing country to issue warrants that allow investors to exchange dollar-denominated bonds for peso-denominated debt at specific strike dates in 2006. The exchange operation involved three series of warrants, which can be exercised up to a maximum of $2.5 billion in bonds potentially exchanged for domestic peso bonds. The transaction was part of the government's continuing effort to shift its financing to local-currency debt markets. In March 2006, Mexico retired $2.9 billion worth of global bonds due to mature between 2007 and 2031, and issued $3 billion of new global bonds due in 2017. The new global issue carried a coupon of 5.63 percent, and was priced to yield 5.74 percent, or 105 basis points above comparable U.S. Treasuries.

Panama. In November 2005, Panama exchanged $820 million of short-dated dollar bonds for a new $980 million global bond due in 2026. The new issue was priced at a discount with a coupon of 7.13 percent, yielding 7.42 percent, or 263 basis points over the U.S. Treasury rate. In a transaction intended to improve the long end of the government's yield curve, in January 2006 Panama exchanged about $1.1 billion of global bonds due in 2020, 2023, and 2034 for a new $1.4 billion global bond due in 2036. This exchange operation retired $117 million of 2020s, $617 million of 2023s, and $327 million of 2034s. The new issue was priced at 98.4 percent of face value to yield 6.94 percent, or 230 basis points over the U.S. Treasury rate.

Notes

1. The concentration pattern was similar to bank lending except for the Philippines, which attracted very little bank lending.

2. International Financial Services, London, 2005.

3. InterSec reports that U.S. fund managers' allocations to international stocks rose from 13 percent in 2004 to 15 percent in 2005.

4. The growth in FDI was led by the United Kingdom, where FDI inflows almost tripled to a record high after almost $100 billion worth of asset restructuring of a large oil company. Because of the restructuring of the Shell Transport and Trading Company and Royal Dutch Petroleum Company into Royal Dutch Shell, Royal Dutch Shell was classified as a foreign company for UK balance-of-payments purposes. That resulted in a sharp increase in FDI into the United Kingdom. FDI flows to Canada, Germany, and United States also increased in 2005 after significant reductions since 2000. In 2004, after a continuing decline, FDI flows to Germany slumped into negative numbers as changes in corporate tax laws led to large repayments of intercompany loans (OECD 2005).

5. The Foreign Investment Advisory Service (FIAS), part of the International Finance Corporation, advises governments on how to attract and retain FDI by providing investment climate diagnostics and developing customized long-term FDI promotion strategies that fit each client country's needs, objectives, and capacity.

6. In 2005, SAB-Miller bought a brewery company for $7.8 billion bringing approximately US$1 billion worth of FDI into Columbia. In addition, Philip Morris bought a local tobacco producer for $350 million.

7. Itaú BBA has opened its first office in China. Brazil's second-leading commercial bank is targeting Chinese and Brazilian companies doing business in both markets.

8. French Vodafone increased its share in Vodacom from 35 percent to 50 percent. The deal represents the second-largest inflow of foreign direct investment into South Africa after the Barclays-ABSA deal.

9. In a perfect international market, covered interest arbitrage implies that spreads on bonds issued by the same issuer in different currencies are just a function of respective interest rates and net exchange rates. Thus $S_e = \left(\frac{1+r_e}{1+r_d}\right) S_d$ where S_e and S_d are spreads on the euro and the dollar, respectively and r_e and r_d are corresponding interest rates in euros and dollars. See Kercheval, Goldberg, and Berger (2003) and Berger and Stovel (2005) for more detail.

10. See "Deutsche Bank Ousts Citigroup: Demand for euro-denominated issues puts sales on a record pace for 2005," *Bloomberg Markets,* November 2005.

11. Some studies have provided empirical evidence of the comovement of the two asset prices for investment-grade bonds (Blanco, Brennan, and Marsh 2005).

12. In theory, under the absence-of-arbitrage-opportunity hypothesis, a par floating rate note and a CDS on the same issuer should have the same spread. If the spread of the latter was strictly larger, a risk-free gain would be possible by entering into the following trade: (i) purchase of a par floating rate note paying a coupon of Libor plus a spread; (ii) fund the purchase in the repo market, paying the general-collateral repo rate, which is typically close to Libor; and (iii) buy protection on the issuer's name in the CDS market, paying the premium.

13. However, in practice, the arbitrage cannot be implemented at all times and under all market conditions.

14. As of April 7, 2006.

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