CHAPTER III

EMERGING MARKET DEVELOPMENTS AND FINANCING PROSPECTS

Emerging markets faced internal and external challenges throughout most of last year. Toward the end of the year, however, emerging market bonds rallied in the secondary market and access eased in the primary market as global investors reached for yield and concerns over policy continuity in key emerging markets dissipated. Banking sector financial soundness—which is reviewed for the first time in this issue of the GFSR—was mixed. Banks in some countries in Latin American remain in distress, while others in the region have achieved stronger results. In contrast, the financial health of banks in emerging Asia and Eastern Europe has generally improved.

External financial market developments—falling prices in the major equity markets, sharply widening credit spreads, high levels of actual and implied volatility, and a withdrawal of banks from risk taking in response to loan and trading losses and falling share prices—roiled emerging markets. These developments once again highlight the strong influence of the external financial environment on emerging financial markets. Reflecting this unsupportive external environment, financial flows to emerging markets fell for the second consecutive year, and the "feast or famine" dynamic of the emerging primary bond market was again evident.

Internal challenges also arose. Market anxiety over the prospects for policy continuity intensified in the run-up to elections in Brazil, Turkey, and other key emerging market countries. This risk of policy discontinuity compounded the external challenges. Partly reflecting investor focus on the likely path of policies, a marked differentiation of borrowers by perceived credit quality persisted throughout the year. Some Latin American countries—notably Brazil and other sub-investment-grade issuers—faced high yield spreads. In contrast, Asian and Eastern European borrowers benefited from near-record-low spreads. Asian markets, except for the Philippines, were supported by regional liquidity and a solid investor base. Eastern European countries attracted investor interest in anticipation of further credit upgrades associated with progress on accession to the European Union. The degree of spread compression, especially in Eastern Europe, is driven in part by a search for yield on the part of European institutional investors. Current yield spreads appear to be pricing in expectations for a problem-free path to EU accession, raising the risk of reversal if these expectations prove optimistic.

Notwithstanding the turmoil that peaked in the third quarter of last year, emerging markets ended last year on a positive note. Bond markets rallied, volatility declined, and bond issuance rebounded, albeit from quite low levels. The rally of the emerging bond market in the fourth quarter was led by credits at the lower end of the rating spectrum and mirrored a similar rally in U.S. corporate bonds. Investors in both markets appeared to reach for yield in an environment of historically low interest rates on U.S. and euro-zone domestic government bonds and of investor disillusionment with equities. Accumulated cash balances were partially mobilized in the fourth quarter. Low interest rates in mature markets helped spur retail flows to high-yield corporate and emerging bond market mutual funds

and contributed to increased allocations to emerging market bonds by institutional investors. Emerging markets also benefited from a relief rally as the extreme investor anxiety that preceded elections in Brazil and Turkey eased. Notwithstanding the reopening of market access that accompanied the fourth-quarter rally in secondary emerging markets, gross flows for the year as a whole were low and concentrated on issuers at the higher end of the credit rating spectrum.

Looking ahead, the risk that the external environment could once again become unsupportive remains palpable. The global economic recovery remains hesitant and uneven. Equity prices in the major markets remain exposed to further correction if earnings growth falls short of expectations and a renewed bout of acute risk aversion could be triggered by geopolitical events (Box 3.1).

At the same time, investor perception of risk emanating from within emerging markets has not fully dissipated. Investor concerns over the direction of policies—notably in Brazil and Turkey—have eased considerably from the pre-election heights of the second and third quarters of last year. In the case of Brazil, markets have so far welcomed the cabinet appointments and policy pronouncements of the new administration, as evidenced by a strengthening *real* and declining foreign sovereign bond spreads. Nevertheless, interest rates on domestic and foreign Brazilian government bonds remain quite high, and sovereign access to foreign primary markets is generally considered to be excluded without a further substantial fall in yield spreads. Whether the announced primary fiscal adjustment will be sustained by structural measures—notably in the area of tax and pension reforms—is at the center of investor concerns. In the case of Turkey, the prospects for further fiscal consolidation and banking sector reform remain key investor concerns, which are at present overshadowed by the uncertainties posed by the prospect of war on its borders and its financial implications. Whether emerging markets can benefit from the build-up of global liquidity in mature markets continues to hinge on the policies they pursue.

Notwithstanding these risks from within and without, there are grounds for optimism. An external environment in which global economic growth is positive but sub par, inflationary pressure is muted, and yields on mature government bonds are low could entice capital to the higher yields offered by emerging markets. The strong risk-adjusted returns of emerging market bonds in recent years could intensify this trend, particularly for institutional investors facing large losses on equities and low yields on U.S. and euro-zone domestic government bonds.

Emerging Market Flows Remain Weak

Primary market activity for bonds, loans, and equities last year was at a low ebb, reminiscent of flows seen in the early-to-mid-1990s and below those following the Asian crisis in 1998 (Table 3.1 and Figure 3.1). For the year as a whole, emerging market fund-raising totaled just $134.8 billion, reflecting a sharp fall-off in flows to Latin America following the Argentine default and in advance of the Brazilian election.

In the fourth quarter of last year, gross funding by emerging markets on international capital markets rose moderately, to $33.3 billion (Figure 3.2). Bond issuance rebounded by nearly 70 percent from the third quarter as primary markets reopened after a 20-week closure. Nonetheless, total emerging market fund-raising grew only modestly, reflecting continued moderation in syndicated loan commitments. Equity placements remained limited, and concentrated largely on Asian issuers.

Sub-investment-grade borrowers, particularly in Latin America, were largely shut out of the primary bond market during much of May–November of 2002 (see the Appendix to this Chapter). As in past episodes of market closure, a sharp increase in the volatility of major markets and rising risk premiums on

Table 3.1. Emerging Market Financing

	2000	2001	2002	2000 Q1	2000 Q2	2000 Q3	2000 Q4
	(In billions of U.S. dollars)						
Issuance	216.4	162.1	134.8	60.4	55.4	50.3	50.3
Bonds	80.5	89.0	61.6	33.8	16.1	21.1	9.4
Equities	41.8	11.2	16.4	8.9	11.6	8.8	12.4
Loans	94.2	61.9	56.9	17.6	27.7	20.4	28.5
Issuance by region	216.4	162.1	134.8	60.4	55.4	50.3	50.3
Asia	85.9	67.5	54.5	19.5	26.1	18.3	22.0
Latin America	69.1	53.9	32.4	23.7	13.9	18.8	12.7
Europe, Middle East, Africa	61.4	40.8	48.0	17.1	15.4	13.2	15.6
Secondary markets							
Bonds							
EMBI+ (spread in basis points)[2]	756	731	765	674	712	677	756
Merrill Lynch High Yield (spread in basis points)	871	734	802	584	615	664	871
Salomon Broad Investment Grade (spread in basis points)	89	78	62	81	87	83	95
U.S. 10-yr. treasury yield (yield in %)	5.12	5.07	3.83	6.03	6.03	5.80	5.12
	(In percent)						
Equity							
DOW	–6.2	–7.1	–16.8	–5.0	–4.3	1.9	1.3
NASDAQ	–39.3	–21.1	–31.5	12.4	–13.3	–7.4	–32.7
MSCI Emerging Markets Free	–31.8	–4.9	–8.0	2.0	–10.8	–13.4	–13.5
Asia	–42.6	4.2	–6.3	4.0	–14.0	–22.4	–17.3
Latin America	–18.4	–4.3	–24.8	3.2	–8.1	–6.0	–8.5
Europe/Middle East	–23.4	–17.7	–9.1	3.0	–9.7	–3.9	–14.3

Sources: Bloomberg L.P.; Capital Data; Merrill Lynch: Salomon Smith Barney; and IMF staff estimates.
[1]Issuance data are as of Jan. 22, 2003 close-of-business London and secondary markets data are as of February 28, 2003 c.o.b New York.
[2]On April 14, 2000 the EMBI+ was adjusted for the London Club agreement for Russia. This resulted in a one-off (131 basis points) decline in average measured spreads.

U.S. high-yield corporate bonds were the main external contributors to last year's emerging market issuance famine. The issuance famine ended in the fourth quarter, as improvements in market sentiment—notably the decline in volatility, rally in major bond and equity markets, and narrowing spreads in the secondary market for emerging market bonds—facilitated a rebound. The rush to issuance since November is also typical of past episodes of market reopenings. This time, however, the risk that war might result in renewed access difficulties has provided a further spur to tap primary markets quickly. It remains to be seen whether the spurt in issuance, which continued throughout January, will, as in past reopenings, again lead to an issuance glut and contribute to indigestion on the secondary markets.

In the primary bond markets, issuance recovered from the famine that began in the second week of May, totaling a healthy $14.6 billion in the fourth quarter. In contrast to previous reopenings, however, tiering remained prevalent. Investment-grade issuers were the first to regain market access, accounting for roughly 45 percent of quarterly issuance. The dollar market saw the bulk of new issues (around 80 percent). Euro-denominated issuance remained negligible in the wake of the losses sustained by the European retail investor base after the Argentine default. The Samurai market staged a weak comeback in the fourth quarter but its share in the total remained low by historical standards. January 2003 saw a continuation of the buoyant fourth quarter conditions for emerging bond issuance,

2001				2002				2002			2003
Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Oct.	Nov.	Dec.	Year to Date[1]
(In billions of U.S. dollars)											
42.2	50.5	29.2	40.2	37.0	32.9	31.7	33.3	7.5	13.3	12.4	7.7
26.8	28.8	11.7	21.7	22.2	15.9	8.8	14.6	3.5	7.2	3.9	7.6
2.3	5.3	1.0	2.6	4.1	4.3	3.8	4.1	0.3	2.6	1.2	0.0
13.1	16.4	16.4	15.9	10.7	12.6	19.0	14.5	3.7	3.5	7.3	0.2
42.2	50.5	29.2	40.2	37.0	32.9	31.7	33.3	7.5	13.3	12.4	7.7
19.6	22.8	7.5	17.6	13.3	11.9	14.1	15.2	2.4	8.5	4.4	1.8
15.2	15.4	11.4	11.9	11.9	8.3	5.6	6.6	1.8	1.4	3.3	4.2
7.4	12.4	10.4	10.7	11.9	12.7	12.0	11.5	3.3	3.4	4.7	1.8
784	766	1005	731	598	799	903	765	862	778	765	707
757	736	915	734	623	809	890	802	974	799	802	757
89	80	77	78	69	73	75	62	82	69	62	52
4.93	4.93	4.60	5.07	5.42	4.86	3.98	3.83	3.99	4.22	3.83	3.69
(In percent)											
–8.4	6.3	–17.5	15.7	3.8	–11.2	–17.9	9.9	10.6	5.9	–6.2	–5.4
–25.5	17.4	–30.5	29.9	–5.4	–20.7	–19.9	14.0	13.5	11.2	–9.7	–4.4
–6.2	3.1	–23.4	28.4	10.7	–9.0	–16.8	9.8	6.4	6.8	–3.4	–3.7
–0.1	–1.6	–22.1	36.1	14.9	–6.3	–17.0	4.9	4.8	6.8	–6.3	–4.4
–3.5	7.1	–24.7	23.0	7.1	–22.0	–24.7	19.6	13.8	3.2	1.9	–6.1
–22.0	4.5	–26.1	36.8	0.2	–11.0	–6.5	9.1	7.3	9.2	–6.9	–0.7

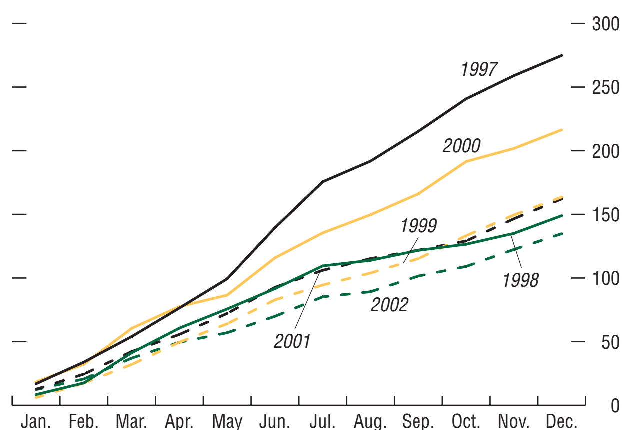
reflecting seasonal factors and an acceleration of issuance plans in anticipation of military conflict in Iraq.

Notwithstanding the reopening of access in the fourth quarter, bond issuance in 2002 amounted to only $61.6 billion, the lowest level since the mid-1990s. The main reasons for low levels of primary market activity in 2002 were Argentina's absence from the primary market throughout the year, Brazil's limited issuance from the first quarter onward, Turkey's difficulties in coming to market in the run-up to the November elections, and an unsupportive external environment throughout the second and third quarters of the year.

Equity issuance remained subdued in the fourth quarter of 2002, with placements totaling $4.1 billion. While cumulative issuance for the year as a whole was 45 percent higher than in 2001, it represented a precipitous decline from the heady days of 2000.

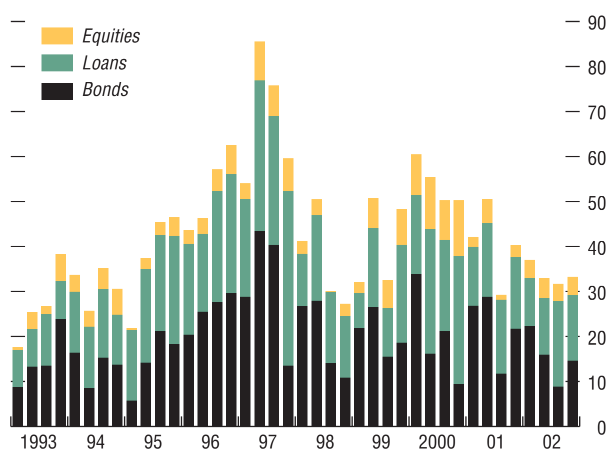
Syndicated lending to emerging markets declined in the fourth quarter to $14.5 billion, bringing cumulative issuance in 2002 to $56.9 billion. This level was similar to that in 1998, the year of the Asian crisis, and well below 2000, which featured the syndication of jumbo loans to finance mergers and acquisitions in the technology, media, and telecom (TMT) sector. In 2002, the malaise in cross-border syndications stemmed from a further reduction in demand for credit by corporates, particularly in Asia and the EMEA (Europe, and the Middle East and Africa) regions, as firms appeared hesitant to invest in the wake of the slowdown in economic activity in the industrialized countries and uncertainty over recovery prospects. Ample liquidity in the

Figure 3.1. Cumulative Gross Annual Issuance of Bonds, Loans, and Equity
(In billions of U.S. dollars)



Source: Capital Data.

Figure 3.2. Emerging Market Financing
(In billions of U.S. dollars)



Source: Capital Data.

local markets further constrained lending opportunities for the international banks. On the supply side, lending conditions tightened further as international banks sought to rebuild their balance sheets, having sustained sizable losses on their exposures following several high-profile corporate bankruptcies in the United States and Europe. The upshot for the emerging markets was increased discrimination according to credit quality. In Latin America, this led to a broad-based retrenchment from the riskier bank loan markets, following the default in Argentina and in the context of the pre-election uncertainty surrounding Brazil.

Flows of foreign direct investment (FDI) were also weak last year and remained heavily concentrated in a few host countries. According to World Bank data, FDI flows to emerging markets in 2002 declined to $143 billion compared with $171 billion in 2001. The decline was part of a global decline in direct investment that reflected unsettled investor sentiment throughout much of the year and a falloff in privatizations and transactions involving mergers and acquisitions.

Emerging Bond Markets Turn in Strong Performance

Last year, the return on the EMBI+ (Emerging Market Bond Index) was 14.2 percent, as the decline in U.S. treasury yields to near historic lows contributed about 8 percentage points of return. This, together with high coupon payments, more than offset the drag on returns posed by the modest widening of spreads (Table 3.2). The strong overall returns of last year mask important differences across regions and credit segments, however, with bonds at the lower end of the credit rating spectrum performing considerably less well than their higher-grade counterparts. Non-Latin American sovereigns, which generally benefited from narrowing spreads, posted a 26 percent return for the year, compared with 7 percent for Latin America, which saw

Table 3.2. EMBI+ Performance

	Returns (in percent)						Spreads (in basis points)					
	2002					2003	2002					2003
	Oct.	Nov.	Dec.	Q4	2002	to date[1]	Oct.	Nov.	Dec.	Q4	2002	to date[1]
EMBI+	7.7	3.2	3.1	14.6	14.2	5.5	–179	–84	–13	–276	34	–58
Latin	9.7	3.6	4.3	18.6	7.2	5.4	–246	–99	–47	–392	174	–64
Non-Latin	5.0	2.6	1.5	9.3	25.6	5.6	–100	–62	28	–134	–100	–54
Argentina	5.4	–1.3	1.2	5.3	–5.6	1.0	–361	48	151	–162	2,019	345
Brazil	22.9	5.0	8.7	40.2	–3.3	13.2	–653	–136	–160	–949	583	–264
Bulgaria	3.7	1.5	1.3	6.6	10.5	3.7	–70	–36	7	–99	–142	–43
Colombia	12.2	5.7	6.0	25.8	12.8	0.5	–243	–147	–49	–439	131	31
Ecuador	10.0	7.7	–2.3	15.7	–4.7	19.7	–121	–158	105	–174	568	–279
Egypt	4.4	2.8	5.1	12.8	. . .	4.5	–109	–58	–36	–203	. . .	–32
Malaysia	–1.3	–0.7	2.8	0.7	. . .	2.9	6	–20	15	1	. . .	–29
Mexico	2.6	2.2	3.1	8.1	16.4	1.8	–64	–61	20	–105	23	–7
Morocco	0.8	0.8	3.4	5.1	7.2	1.9	–17	–55	–83	–155	–128	–32
Nigeria	6.7	9.8	0.8	18.1	9.9	14.8	–1,261	–814	419	–1,656	850	–776
Panama	5.7	2.6	1.5	10.0	11.7	1.2	–88	–53	31	–110	35	3
Peru	7.9	6.0	4.5	19.5	10.7	5.9	–138	–106	–26	–270	89	–63
Philippines	0.6	–0.3	1.5	1.8	14.4	1.1	–28	–14	41	–1	64	10
Poland	1.6	0.8	1.4	3.8	13.3	2.4	–75	–47	4	–118	–10	–3
Russia	7.2	2.5	1.4	11.4	35.9	8.1	–118	–55	36	–137	–191	–84
South Africa	0.1	1.9	2.4	4.4	. . .	4.4	–19	–65	18	–66	. . .	–54
Turkey	9.0	10.2	–0.4	19.7	20.7	1.8	–190	–218	77	–331	–14	14
Ukraine	0.0	–1.3	3.1	1.8	21.0	7.2	58	85	–136	7	–269	–251
Venezuela	3.1	4.3	–3.3	4.0	18.7	–6.1	–94	–125	184	–35	–3	279

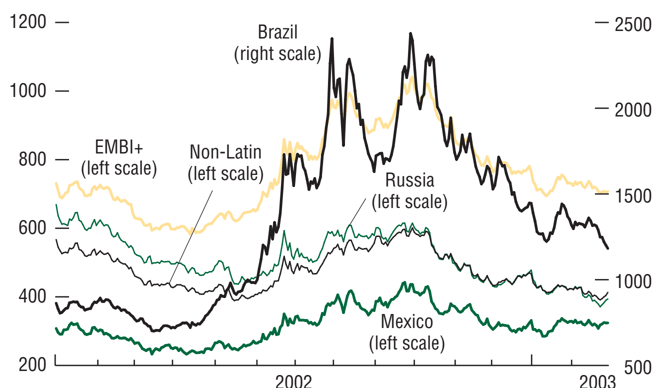
Source: J.P. Morgan Chase.
[1]As of February 28, 2003.

spreads widen, especially in the third quarter (Figure 3.3).

The strong performance of emerging market bonds in 2002 is particularly striking relative to the returns of other asset classes, including U.S. high-yield corporate bonds (down 1.1 percent), U.S. high-grade corporate bonds (up 10 percent), and the S&P 500 (down 23.4 percent). Moreover, as emerging bond market volatility remained well below previous crisis episodes, emerging market bonds also posted solid risk-adjusted returns, with only mature government bonds and U.S. high-grade corporate bonds generating higher risk-adjusted returns. With the strong performance of last year, emerging market bonds have provided better risk-adjusted returns over the past five years than most other asset classes. This performance could, in an environment of low interest rates on mature government bonds and disillusionment with equities, attract increased flows to the asset class.

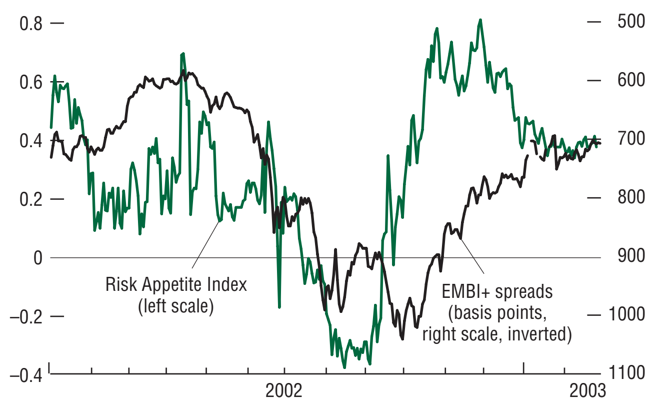
Unlike the second and third quarters, during which high-grade emerging market bonds outperformed others, lower credit quality bonds rebounded strongly in the fourth. This largely reflected a relief rally in Brazil following the high level of investor anxiety in the run-up to the October presidential election. The rebound in emerging debt markets during the fourth quarter also resulted from an improvement in the external financing environment, including a marked reduction in global risk aversion, ample global liquidity following the 50-basis-point U.S. Federal Reserve rate cut in November, and renewed if short-lived optimism for the prospects for growth in output and earnings (Figure 3.4). The correlation between indicators of global risk appetite and emerging debt markets became particularly high in the fourth quarter. High-grade emerging market bonds appeared to have been particularly influenced by external developments. They traded more in line with U.S.

Figure 3.3. Sovereign Spreads
(In basis points)



Source: J.P. Morgan Chase.

Figure 3.4. Risk Appetite and Emerging Market Debt



Sources: J.P. Morgan Chase; and IMF staff estimates.

high-grade corporate bonds than their emerging debt market counterparts.

Notwithstanding the spike in the cross-correlation of emerging bond market returns in the third quarter, contagion remained largely in check throughout the year. Changes in the investor base for emerging market bonds, an increase in the overall credit quality of the emerging market bond universe, and increased transparency that facilitated investor discrimination across countries on the basis of policies all helped to limit contagion. Developments in Brazil nevertheless played a prominent role, and the repercussions emanating from Brazil were felt most by other countries in the region. The correlations of other countries with Brazil tended to be far stronger when Brazilian bond prices fell than when they rose (Box 3.2).

Market participants attributed Brazil's ability to weather the storm of election-related uncertainty to a level of international reserves that was more than sufficient to cover external debt service obligations, and a floating exchange rate that permitted a flexible response to difficulties in rolling over maturing domestic debt. The fourth quarter rally in Brazil, which stemmed from a more supportive external environment and favorably received cabinet appointments and policy pronouncements by the new administration, led to the disinversion of the country's dollar-denominated eurobond curve (though spreads remained quite high). In addition, the dynamic of the local market improved significantly, with capital outflows subsiding, local yields falling, and the *real* appreciating. Because of Brazil's large share in the emerging debt indices, investors felt compelled to increase their exposure to Brazil for fear of marked underperformance of their benchmarks.

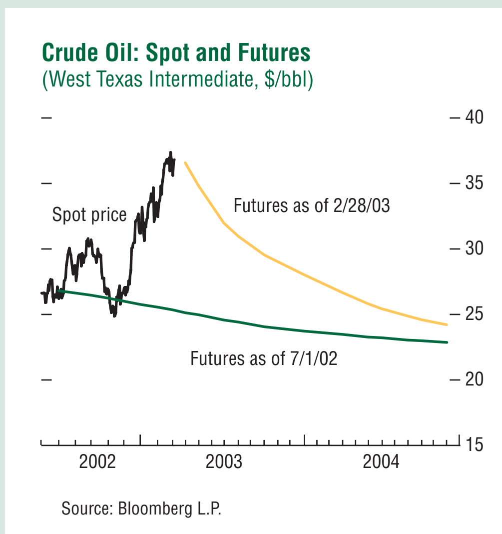
Retail investors appear to have been pushed by low yields on U.S. treasuries and disillusionment with equities to increase their exposure to high yield and emerging bond market mutual funds. Flows into U.S.-based emerging

Box 3.1. The Risk of War and Emerging Market Vulnerabilities

While geopolitical concerns have increasingly weighed on financial markets, investors appear to expect a potential military conflict to be short-lived. If these expectations are disappointed, oil prices and financial markets would likely experience a sharp correction. In such an adverse scenario, consumer and business confidence would be undermined, compounding the drag of higher oil prices on global growth. Investor risk aversion would rise. Emerging market financing flows would slow and the cost of capital would increase. Sub-investment-grade emerging market borrowers, especially those with high financing requirements or located near the scene of hostilities, would be particularly at risk.

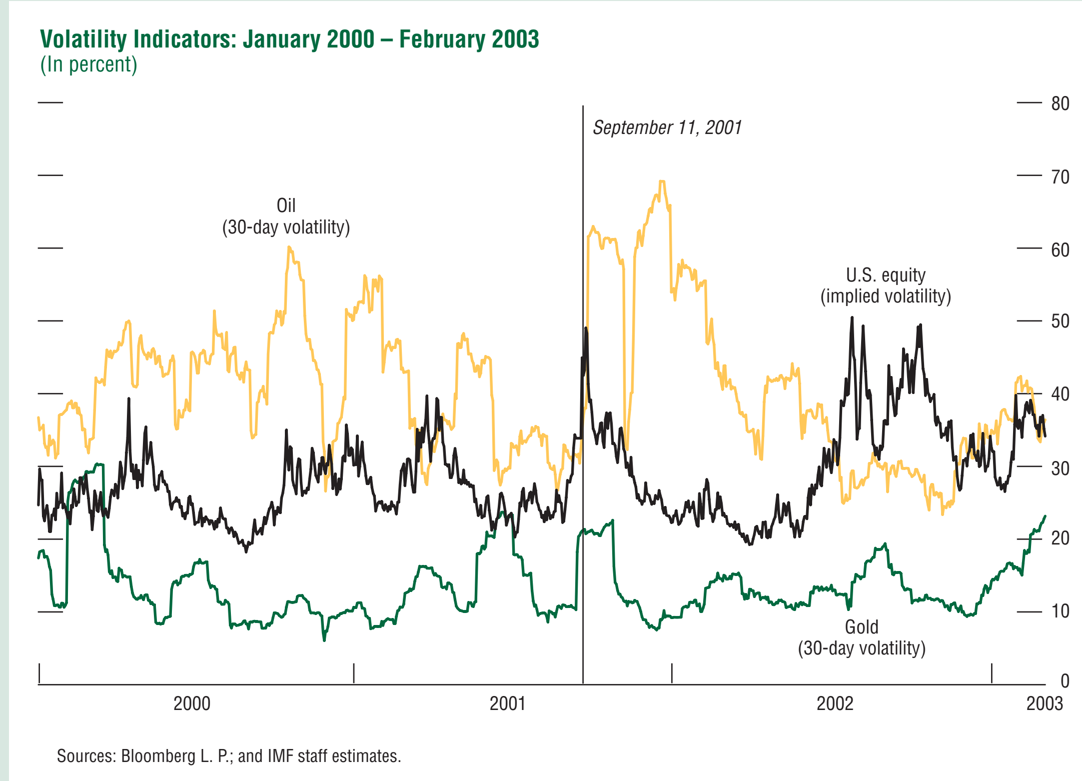
As military conflict looms in the Middle East, oil markets have been at the center of market attention. While investors are concerned about near-term supply bottlenecks, long-term supply repercussions are perceived to be limited. The market anticipates a short conflict. Long-term futures contracts have hardly moved since mid-2002—when war concerns were not yet as pronounced—

Crude Oil: Spot and Futures
(West Texas Intermediate, $/bbl)



Source: Bloomberg L.P.

Volatility Indicators: January 2000 – February 2003
(In percent)



Sources: Bloomberg L. P.; and IMF staff estimates.

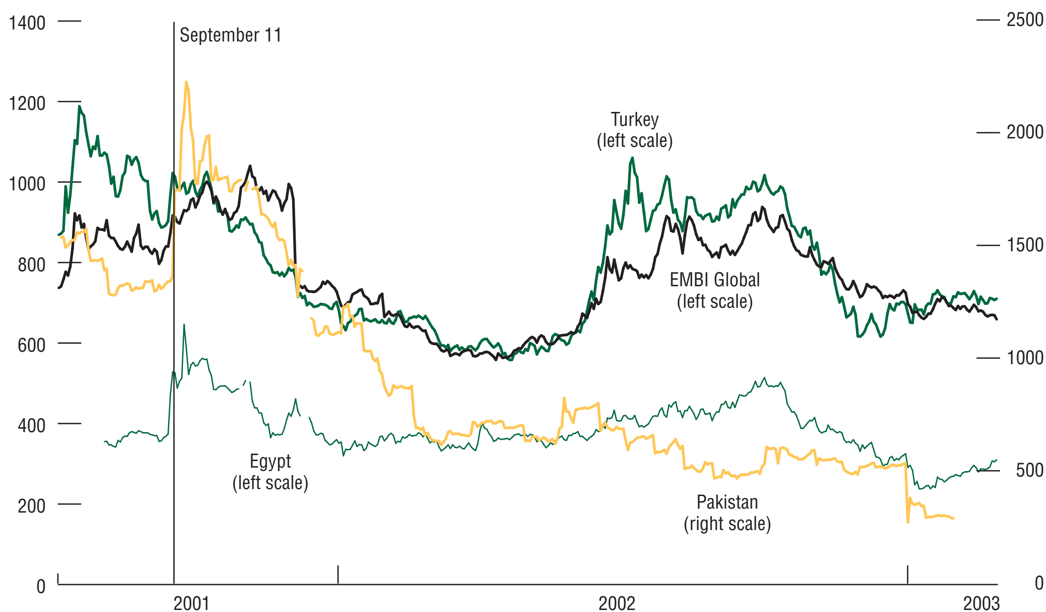
Box 3.1 *(concluded)*

notwithstanding the spike in spot oil prices (see the first Figure). This suggests market expectations for a short-lived oil price shock, which would have only a limited impact on the world economy. Supporting this view, the implied volatility of the U.S. equity market and the actual volatility of oil and gold prices remain well below peaks of September 11, 2001, notwithstanding an increase since the end of last year (see the second Figure).

Indeed, market analysts generally say that they expect an eventual war with Iraq to be over relatively quickly with little disruption to oil supplies and no political fallout for other countries in the region. Notwithstanding this stated sanguine view, however, investors are remaining on the sidelines out of concern about the potential for substantial market volatility while war is waged. Investors also recognize the risk that the widely anticipated benign war scenario may not materialize. And few have the means to weigh the probability of such an outcome. If, however, the war is concluded quickly with little disruption to oil supplies, no political spillover to countries in the region, and no major terrorist incident, most analysts expect a significant rally in mature and emerging markets, as funds now on the sidelines are shifted to riskier assets.

Given the prevalence of this benign scenario, oil prices—and financial markets more generally—are exposed to a significant correction if expectations of a short-lived war are disappointed. At the same time, a prolonged period of uncertainty attributable to the lack of international consensus in favor of war, and uncertainties about the timing and outcome of a war, also risk undermining market sentiment. Indeed, even in the event of a quick and decisive military outcome, a major act of terrorism associated with the conflict—

September 11th and Emerging Market Bond Spreads: July 2001 – February 2003
(In basis points)



Source: J.P. Morgan Chase.

or seemingly independent of it—would still hurt financial markets.

After a volatile year in 2002, emerging markets would be especially vulnerable to a potential slowing of private sector financing flows and an attendant increase in financing costs. Countries with large financing requirements and those in the region of the conflict are most at risk. This is illustrated by the underperformance of bond markets in the Middle East in the aftermath of September 11, including, in particular, Egypt, Pakistan, and Turkey (see the third Figure).

In emerging Europe, the Middle East, and Africa, Turkey appears particularly exposed. And this vulnerability does not only stem from its proximity to the potential conflict. While Turkey's financial markets have remained resilient, their performance has been supported by the expectation of further net financing from bilateral or multilateral sources in the event of war. Any policy setback or potential delay in securing such financing may, however, lead to an unraveling of favorable expectations. Financial market vulnerabilities are further underscored by Turkish plans to issue an additional $3.25 billion in sovereign bonds this year according to market estimates, following issuance of $1.25 billion in January. Vulnerabilities in Egypt, in contrast, have been reduced by the recent decision to float the pound.

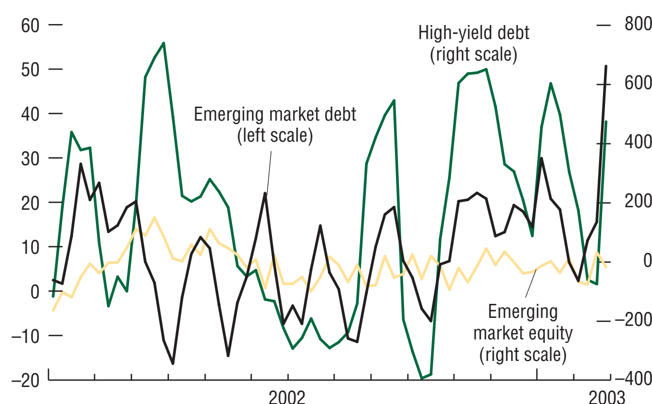
Latin America—because of its relatively large financing needs and sizable share of sub-investment-grade issuers—also appears vulnerable to an increase in global risk aversion and is likely to be hit hard by reduced financing flows. While two key countries completed their planned market financing for 2003 in January (Colombia, $1 billion; and Mexico, $4.5 billion) the financing outlook for other markets remains difficult. In particular, a renewed surge of risk aversion would hurt Brazil and, more broadly, other sub-investment-grade credits in the region.

In Asia, the market financing exercise of the Philippines is at risk of falling short of its ambitious $4 billion target. Nevertheless, cumulative issuance reached $1 billion in January and February, while domestic markets may in part mitigate external financing shortfalls.

market mutual funds rose in the fourth quarter of last year, to $202 million, the largest quarterly inflow in four years (Figure 3.5). The spike in inflows was consistent with a generalized increase in risk appetite in global markets; U.S. high-yield funds also posted especially strong inflows ($4.6 billion) while flows into high-grade mutual funds decelerated markedly.

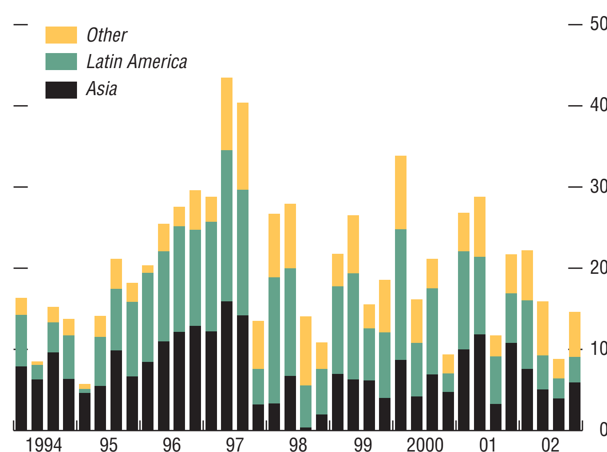
Institutional investors increased their overweighted portfolio positions and reduced cash holdings beginning in November. Surveys suggest that cash positions held by dedicated emerging market bond investors have fallen below historical averages, and that investors increased their exposure to higher yielding credits during the fourth quarter. This change in portfolio positioning reflects in part the spread compression experienced in Asian and Eastern European credits. In some cases, this compression brought spread levels to near all-time lows, raising valuation concerns and limiting the perceived scope for further capital appreciation. As a result, such sovereign credits as Colombia have experienced increased demand from dedicated accounts and now appear to be overweighted in investors' portfolios. Similarly, the wide spreads and potential for further narrowing have pushed investors to adopt a slightly overweighted position on Brazil, except for crossover investors who remain underweighted. Dedicated and crossover investors remain slightly overweighted in Mexico. Investors continue to add to an already overweighted position on Russia, notwithstanding low yield spreads, in anticipa-

Figure 3.5. Emerging Markets and High-Yield Fund Flows
(In millions of U.S. dollars; 4-week moving average)



Source: AMG Data Services.

Figure 3.6. Bond Issuance
(In billions of U.S. dollars)



Source: Capital Data.

tion of further credit upgrades. Russia appeared to be the largest overweighted position in investor portfolios at year end. At the lower end of the credit scale, Venezuela was shunned by investors, who remained largely underweighted, although trading accounts increased their exposure toward year end. Investor positioning on Turkey remained mostly underweighted.

Primary markets were closed for much of the second and third quarters of last year and reopened with a bang in November (see the Appendix to this Chapter). Issuance in 2002 was the lowest in years ($61.5 billion total, of which $31.7 billion for sovereigns), partly reflecting the inability of two traditionally large issuers—Argentina and Brazil—to tap the market. Primary market access rebounded modestly in the fourth quarter (to $14.6 billion), but remained well below the issuance levels of the fourth quarter of 2001 (Figure 3.6). Sub-investment-grade issuers came back as a share of total issuance during the fourth quarter. They accounted for slightly over half of total bond issuance, compared to less than 25 percent in the previous quarter. Because of the higher share of sub-investment-grade issuers, new bond issues in the fourth quarter had on average shorter maturities (6.6 years compared to 9.5 years in the third quarter), and higher spreads (472 basis points versus 364 basis points in the third quarter), notwithstanding the improvement in secondary markets. Overall, Asian and EMEA borrowers accounted for almost 80 percent of total issuance during the quarter, with Asian semi-public entities and EMEA sovereigns and corporates taking the lion's share of the total.

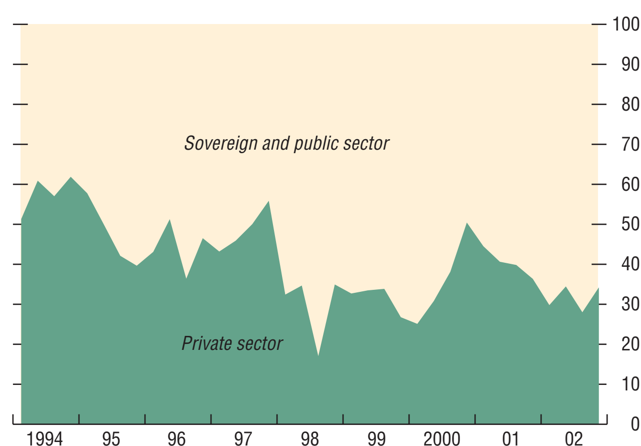
On the sovereign side, issuance in the fourth quarter totaled $5.4 billion, some $2.5 billion below that of the fourth quarter of 2001 (Figure 3.7). Sub-investment-grade issuers accounted for almost 75 percent of total issuance in the fourth quarter of last year, compared with less than 40 percent in the third quarter. High-grade issuers led the way into the fourth quarter, with Poland ($622

million), Chile ($100 million), and El Salvador ($451 million) issuing in October. As market conditions continued to improve, however, primary markets opened for sub-investment-grade sovereign borrowers. These borrowers rushed into the market, raising as much as $2.9 billion (or 85 percent of their total quarterly issuance) during November 15–December 12. Turkey was the largest sub-investment-grade issuer ($1,150 million), taking advantage of the post-election rally. Sub-investment-grade Latin American issuers regained market access after a full quarter of closure, with Colombia and Peru issuing $500 million each. However, the market remained closed to Latin American issuers with single-B credit ratings. Exotic credits continued to enjoy unimpeded access to the market as investors sought diversification benefits.

Issuance in the euro market remained depressed, with only one sovereign (Iran's €375 million issue in December) tapping this market. Overall, the share of euro-denominated issuance accounted for barely 5 percent of total issuance during the quarter, the lowest level for the past four years. This largely reflected the withdrawal of the European retail investor base following Argentina's default. The Samurai market experienced a modest pickup on the back of a streak of issuance by public entities in Korea and the Philippines, but overall yen issuance remains well below historical levels (Table 3.3).

Overall issuance during January 2003 stayed strong. Seasonal factors account for part of this strength. Over the past three years, an average $15 billion in sovereign issuance has occurred in the first quarter. In addition, the prospect of war with Iraq has encouraged issuers to come to the markets quickly following the market closure of the second and third quarters of 2002. During the first three weeks of January, bond issuance totaled $7.5 billion. Of this total, 85 percent was accounted for by sovereign issuers, with high-grade (Mexico and Chile), high-yield (Turkey, the Philippines, Colombia) and exotic issuers.

Figure 3.7. Share of Bond Issues
(In percent)



Source: Capital Data.

Table 3.3. Currency of Issuance
(Shares in percent)

	1999				2000				2001				2002			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
U.S. dollars	62	67	59	53	62	51	65	60	57	72	63	72	77	84	82	83
Euro	26	28	36	37	33	28	18	21	31	17	7	20	16	13	9	5
Deutsche mark	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
Yen	2	1	1	8	3	17	14	13	7	6	19	6	1	1	5	6

Source: Capital Data.

Developments in the inclusion of collective action clauses in sovereign bonds are considered in Box 3.3.

Emerging Equity Markets Finished Lower in 2002

Emerging equity markets lost ground last year, notwithstanding a rebound in the fourth quarter. The quarterly pattern of emerging equity returns followed those of their mature equity counterparts and closely tracked changes in the yield on 10-year U.S. treasuries as all markets were similarly affected by the ebb and flow of investor risk appetite (Figure 3.8).

Although emerging equity markets finished the year lower, they lost less than their mature market counterparts, in U.S. dollar terms (Table 3.4).

Emerging Europe was the only region to generate positive returns in U.S. dollar terms in 2002, largely reflecting the impact of that currency's decline against the euro. In addition, the South African rand also rose against the dollar, reversing its sharp depreciation in 2001 and benefiting from the surge in gold and platinum prices.

In Asia, corporate profitability was supported by relatively strong macroeconomic fundamentals, healthier balance sheets as a result of continued deleveraging since the financial crisis in 1997–98, and attractive valuations. But Asian equities fell nevertheless in 2002, notwithstanding a small contribution to dollar returns from regional currency movements.

Latin American equities were the worst performing in dollar terms last year, owing largely to the sizable decline in the value of regional currencies.

The pattern of the volatility of emerging equity market returns, with a notable spike in the third quarter, was similar across regions. It closely followed the volatility of the U.S. equity market (Figure 3.9). An examination of local currency returns suggests that exchange rate variability played an important role in increasing the volatility of U.S. dollar returns for Latin America and EMEA stock markets. Asian currencies, on average, remained relatively stable throughout 2002.

The correlation of returns with the U.S. stock market differed across regions in the fourth quarter (Figure 3.10). Latin American markets generally remained within a band as they largely had throughout the year, balancing influences from both the domestic and U.S. fronts. Their relationship with the United States appears to have strengthened markedly, however, since the beginning of 2003. In contrast, the correlation of EMEA markets with the U.S. market fluctuated substantially in the fourth quarter, as it did throughout the year, with European Union considerations dominating price action.

Asian equities remained significantly tied to developments in the United States given the strong dependence of the region's important electronics exports on U.S. demand and the high proportion of technology stocks in the region (Figure 3.11). The correlation of Asian returns with the U.S. stock market in the third and fourth quarters was consider-

Table 3.4. Equity Markets Performance, 2002
(In percent, dollar indices)

	Q1	Q2	Q3	Q4	2002
Emerging Markets Free	10.7	–9.0	–16.8	9.8	–8.0
EMF Asia	14.9	–6.3	–17.0	4.9	–6.2
EMF Latin America	7.1	–22.0	–24.7	19.6	–24.8
EMF EMEA	5.1	–1.8	–10.5	14.6	4.7
Dow	3.8	–11.2	–17.9	9.9	–16.8
S&P 500	–0.1	–13.7	–17.6	7.9	–23.4
Nasdaq	–5.4	–20.7	–19.9	13.9	–31.5
ACWI Free	0.5	–9.5	–18.6	7.4	–20.5
ACWI Free, excluding US	1.1	–3.5	–19.7	6.6	–16.5

Sources: Bloomberg L.P.; and Morgan Stanley Capital International.

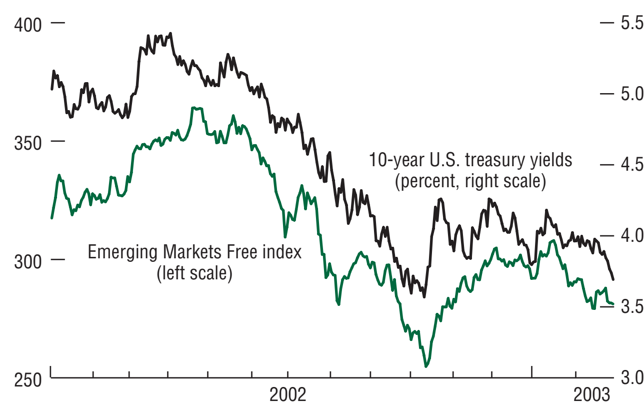
ably higher than in the first half of the year. This pointed to the region's increasing focus on the outlook for capital expenditure in the United States during those quarters, after pricing in domestic fundamentals earlier in the year.

High-tech sectors such as information technology and telecommunications performed less well than more defensive sectors such as health care and consumer goods. In addition, highly leveraged sectors—such as utilities and telecommunications—performed less well than the health care and consumer sectors, which are less leveraged.

A comparison of returns relative to volatility across individual stock markets and industry sectors suggests that EMEA and Latin American equities and the consumer staples sector dominated all others in the fourth quarter (Figure 3.12). The NASDAQ and the information technology sector provided the worst trade-off between risk and return. When the fixed income asset class is taken into account, the EMBI+ and U.S. high-yield corporate bonds, along with EMEA equities, dominate the sample.

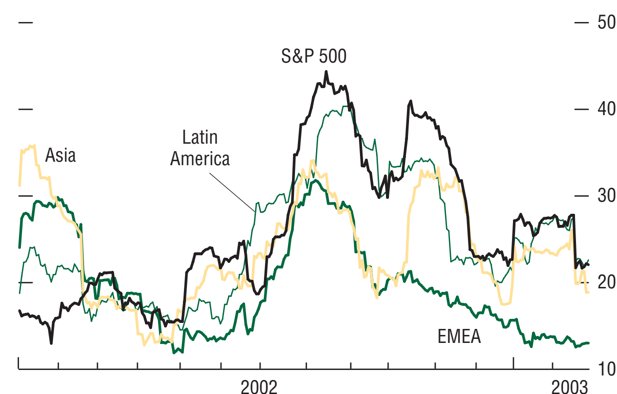
Data from U.S.-based emerging markets and regional funds suggest that outflows from emerging equity funds moderated in the fourth quarter to about $150 million following the massive $500 million withdrawal in the third quarter (Figure 3.13). Only Asian equity funds saw slight inflows ($30 million) in the fourth quarter. For the year as a whole, emerg-

Figure 3.8. Emerging Market Equities and U.S. Treasuries



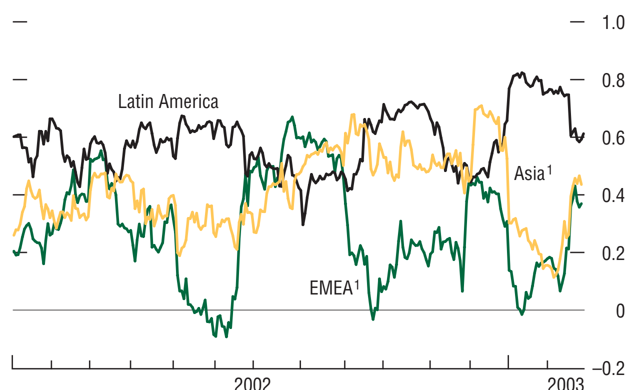
Sources: Bloomberg L.P.; and Morgan Stanley Capital International.

Figure 3.9. Emerging Market Equity Volatility
(In percent with 30-day window of U.S. dollar returns)



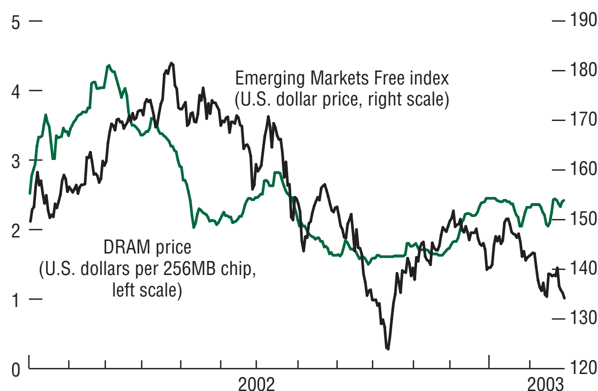
Source: Morgan Stanley Capital International.

Figure 3.10. Correlations of S&P 500 with Emerging Markets
(30-day rolling averages)



Source: Morgan Stanley Capital International.
[1]Adjusted by one trading day.

Figure 3.11. Asian Emerging Market Equities and Semiconductor Chips



Source: Bloomberg L.P.

ing equity markets suffered a net withdrawal of funds (of $330 million).

The withdrawal of foreign investors from the secondary market was mirrored by reduced participation in primary markets. Emerging equity issuances in 2002 totaled $16.4 billion, above the level issued in 2001 but significantly short of the $41.8 billion placed in 2000 (Figure 3.14). Nevertheless, equity issuances held up relatively well compared with bond issuances in 2002, but it remained concentrated on a few countries. China represented 33 percent of total equity issuances in emerging markets last year and half of all issuance in the fourth quarter. Even major issuers experienced occasional difficulty, however. The initial public offering (IPO) by China Telecom in the fourth quarter was significantly scaled back due to weak demand.

Overall, Asia continued to dominate emerging equity issuance in the fourth quarter, constituting more than 75 percent of the total (Figure 3.15). Issuance in emerging Europe totaled around $1 billion, the largest in almost two years, with Russia's Lukoil tapping the market for $775 million. Latin corporates were absent from primary markets for the second consecutive quarter. Chile was the only exception, with Corp Banca (the country's sixth largest lender) selling $150 million of stocks in the country's first initial public offering since 1997. Elsewhere, several Brazilian corporates swapped debt into equity, as the lack of market access made it impossible to roll over debt obligations. However, these swaps essentially represented balance sheet restructuring, rather than net new financing.

Emerging equities as a whole are valued at well below their long-term average valuation of around 14.6. Equities in both the EMEA region and Asia appear to be valued at considerably less than their respective long-run averages. While the P/E ratio for Latin American equities is also below its long-term average, the valuation is not as compelling as in the other regions. (Table 3.5).

Table 3.5. Valuation and Earnings Across Equity Markets

	Price-Earnings Ratio		Earnings per Share (U.S. cents)	
	Forecast [1]	LT Average[2]	Forecast[3]	Actual[1]
EMF	9.0	14.6	27.7	28.4
EMF Asia	9.4	16.6	11.3	13.4
EMF EMEA	10.8	15.5	15.3	12.6
EMF Latin America	8.2	11.2	90.8	63.0

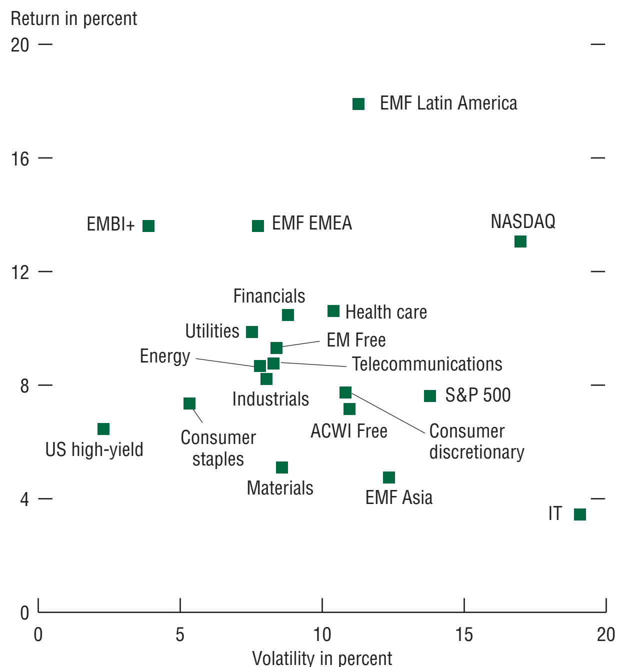
Sources: Morgan Stanley Capital International; I/B/E/S International; and IMF staff estimates.
[1]As at December 2002.
[2]From June 1992 to December 2002.
[3]Twelve-month forward as at December 2001.

In the United States, the gap between forecast and realized earnings appears to have narrowed in the past year, following the bursting of the asset price bubble in 2001, as analysts tempered their optimism in the wake of the global downturn (Figure 3.16). Within the emerging markets, earnings projections for Eastern European stocks appear to be converging with their actual results, which have been only slightly lower than forecast. Meanwhile, realized earnings in Asia have actually surpassed initial projections, supporting claims that the region's equities are significantly undervalued and therefore provide upside potential in the year ahead. In contrast, market forecasts for earnings to rebound in Latin America remain subject to regional and geopolitical risks.

Syndicated Lending Turns Up Modestly

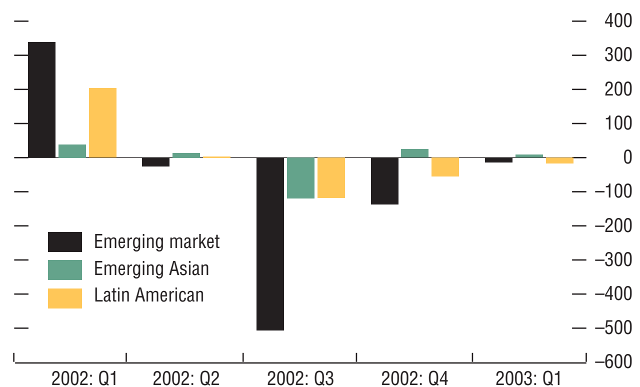
A modest improvement in market sentiment helped boost syndicated loan volumes in the mature markets in the fourth quarter. Cumulative volumes for 2002 ended just 10 percent below those of 2001 in the United States and roughly flat in Europe but were some 40 percent below 2000 levels. Tiering according to credit quality remained pronounced in the fourth quarter. Banks (albeit fewer) continued to tighten lending standards in response to sizable losses on their exposures following the high-profile bank-

Figure 3.12. Returns and Total Risk, 2002:Q4



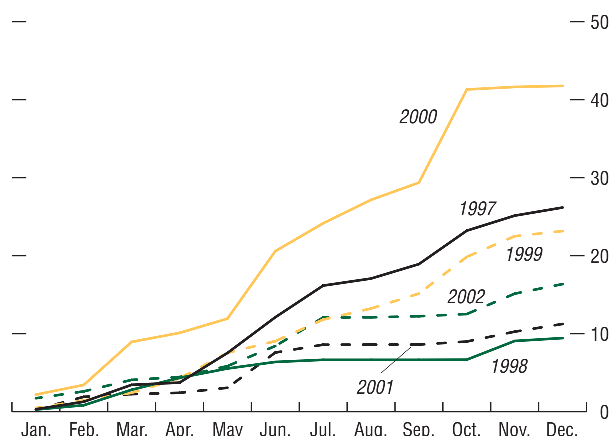
Sources: Bloomberg L.P.; J.P. Morgan Chase; Merrill Lynch; Morgan Stanley Capital International; and IMF staff estimates.

Figure 3.13. U.S.-Based Mutual Fund Flows into Emerging Market, Emerging Asian, and Latin American Equities
(In millions of U.S. dollars)



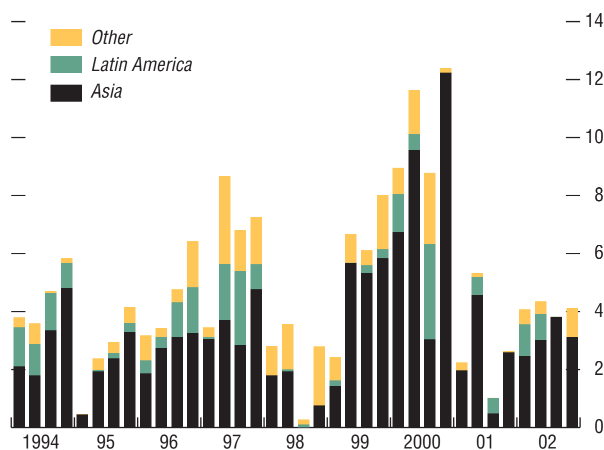
Source: AMG Data Services.

Figure 3.14. Cumulative Gross Annual Issuance of Equity
(In billions of U.S. dollars)



Source: Capital Data.

Figure 3.15. Equity Placements
(In billions of U.S. dollars)



Source: Capital Data.

ruptcies of U.S. and European corporates and the default in Argentina. In this context, activity remained buoyant in the high-grade sector where downward pricing pressure persisted. Refinancings continued to dominate this deal flow. In the leveraged sector, deals remained highly structured and featured significantly higher pricing than in 2000–01. As noted in previous issues of the GFSR, merger and acquisitions (M&A) activity remained modest, save for deals in the European power sector.

Similar concerns dominated syndicated lending to the emerging markets, where loan volumes remained subdued by historical standards (Figures 3.17 and 3.18). Commitments in the fourth quarter ($14.5 billion) were lower than in the third. This brought total issuance in 2002 to $56.9 billion, well below levels in 2001. Underpinning this reduction was a decline in demand for corporate funding in Eastern Europe as the outlook for euro-zone growth dimmed. Banks became more reluctant to extend financing to credits deemed likely to be hurt by military conflict in Iraq. The early part of 2003 has been characterized by similar themes, with a rebound in activity in the loan markets unlikely in the absence of a decisive turnaround in the global economic outlook and a resolution of the uncertainty surrounding Iraq.

A few salient features of recent loan market developments warrant highlighting:

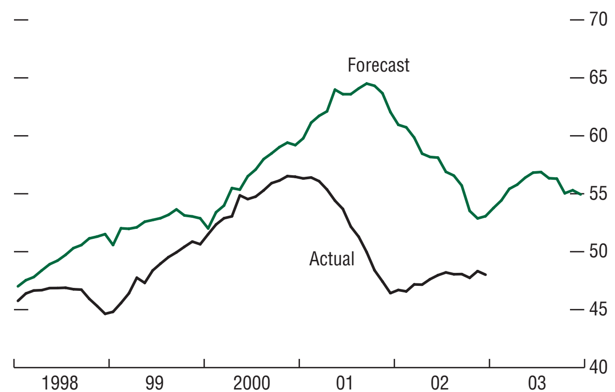
- After benefiting from a flight to quality earlier in the year, the EMEA region registered the greatest decline in syndicated volumes. Central European corporates pared back demand for cross-border funding in the context of lackluster activity in the euro-zone economies and liquidity in local markets remained abundant. Further afield, however, Russian corporates (in the oil and gas and banking sectors) exhibited an increased appetite for funds. Sibneft secured $510 million in collateralized financing ahead of filing a successful $1.86 billion joint bid with Tyumen Oil for the

government's 75 percent stake in Slavneft in mid-December.

- In the fourth quarter, several Turkish banks refinanced maturing 365-day facilities at spreads comparable to those achieved a year ago. However, syndicated loan volumes to Turkey ended 2002 some 30 percent below 2001, and 70 percent below 2000.
- In the Persian Gulf, high oil prices have helped spur project finance lending. At the same time, however, high oil prices have resulted in a liquid regional banking sector, reducing borrowers' reliance on international banks.
- Asian loan volumes remained muted in the fourth quarter of 2002. Sovereigns continued to enjoy increasingly comfortable foreign reserve positions, while local bond markets consolidated their role as the region's preeminent provider of capital for corporates. In any event, Asian corporates exhibited little demand for new money as they continued to work off excess capacity. For those deals coming to market, tiering by credit quality became more pronounced, with increased due diligence by banks translating into more carefully considered pricing and structures. Specifically, risk-averse banks reportedly remain reluctant to lend to Indonesian and Philippine corporates. This was manifested in a retrenchment of cross-border financing in recent years.
- In Latin America, the fourth quarter witnessed a resumption of a sizable commitment to an Argentine corporate, as Pecom Energia received a $599 million refinancing deal.

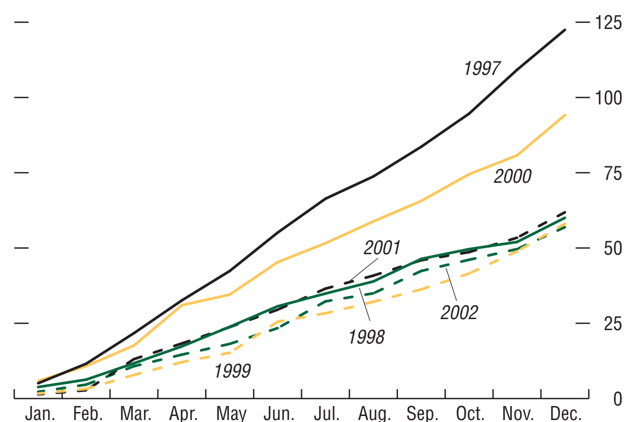
Developments on the pricing front were dominated by lumpy loans in the fourth quarter (Figure 3.19). In Asia, the average loan margin increased, primarily owing to the provision of $900 million in three- and six-year financing for a leveraged buyout by a Korean corporate and $1,050 million in (14- and 16-year) project financing for a Chinese corporate. However, in risk-adjusted terms, margin compression continued, reflecting ample

Figure 3.16. S&P 500 Earnings Per Share



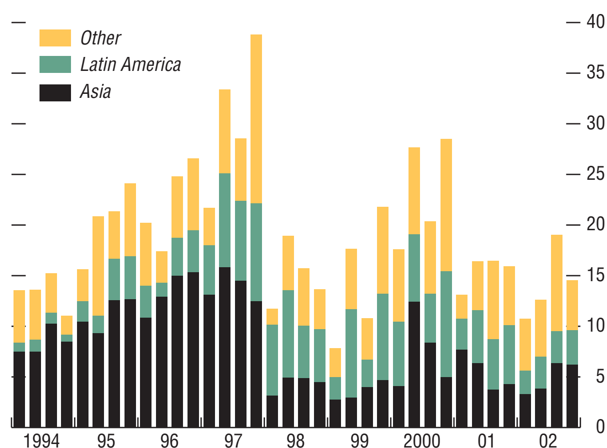
Source: I/B/E/S International.

Figure 3.17. Cumulative Gross Annual Loan Issuance
(In billions of U.S. dollars)



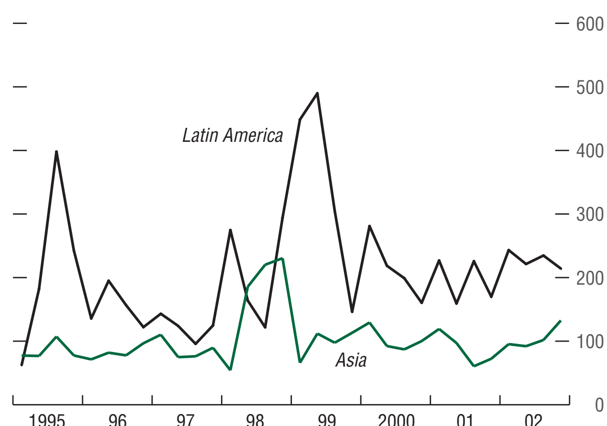
Source: Capital Data.

Figure 3.18. Syndicated Loan Commitments
(In billions of U.S. dollars)



Source: Capital Data.

Figure 3.19. Loan-Weighted Interest Margin
(In basis points)



Source: Capital Data.

bank liquidity and a dearth of lending opportunities. In Latin America, attractive refinancing for Mexico's Pemex amounting to $1 billion, together with a shortening of tenors in Chile, translated into a decline in the average loan margin.

Banking Sector Performance in Emerging Markets

Banking sectors across major emerging markets have offered a mixed performance in recent years. Banks in some countries in Latin America remain in distress, as long-standing weaknesses have been aggravated by the recent economic turmoil. In other countries in the region, banks have realized stronger financial results, reflecting varying initial conditions and economic performance. By contrast, the financial health of banking sectors in the emerging countries of Europe has improved substantially, facilitated by significant bank restructuring efforts and entry of foreign banks in several Eastern European countries. A similar improvement is evident in Asia, although progress has been slower and weaknesses persist in some countries, mainly because of lagging bank and corporate restructuring.

The soundness of banking systems is gauged by various indicators (Table 3.6 and Figure 3.20).[1] These include indicators of *profitability,* measured by the return on assets (ROA); *loan quality,* given by the ratio of nonperforming loans to total loans (NPLs); *capitalization,* measured by the ratio of shareholder's equity to assets (EA); *financial strength ratings* (FSR), based on analysts' evaluations of the profitability and risk prospects of a banking sector; and *market valuation* (MV),

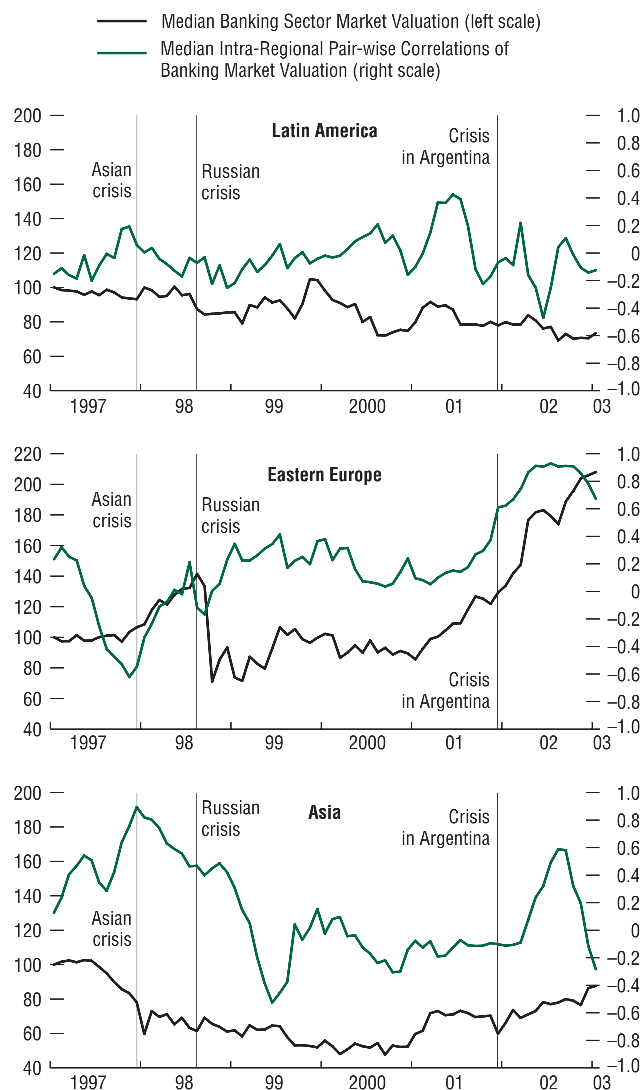
[1]Financial soundness indicators (FSIs) include aggregate information on financial institutions as well as other market-based indicators. A basic set of financial soundness indicators (regarded as *core* indicators by the IMF) and a broader set (including those whose compilation is *encouraged* by the IMF) are identified in Sundararajan and others (2002).

Table 3.6. Emerging Market Countries: Financial Soundness Indicators
(End of period, in percent)

Regions*	1997	1998	1999	2000	2001	2002 Latest
			Return on Assets[1]			
Latin America						
Mean	1.3	0.9	0.6	0.3	–0.1	–0.1
Median	1.1	0.7	0.7	0.9	0.2	1.3
Standard deviation	1.2	1.8	1.7	1.7	2.6	6.3
Eastern Europe						
Mean	0.7	–0.3	0.5	1.5	1.3	1.6
Median	0.7	–0.5	0.5	1.2	1.1	1.4
Standard deviation	0.8	1.4	1.5	1.1	1.0	0.8
Asia						
Mean	–0.1	–4.4	–2.0	0.0	0.4	1.0
Median	–0.8	–1.4	–0.2	0.1	0.6	0.8
Standard deviation	1.3	8.0	3.8	0.9	0.5	0.5
			Nonperforming Loans to Total Loans[2]			
Latin America						
Mean	5.3	7.4	8.2	7.6	7.8	10.8
Median	5.5	7.0	8.7	8.4	8.5	9.0
Standard deviation	3.1	3.6	3.2	2.9	3.5	9.0
Eastern Europe						
Mean	21.4	21.1	17.6	10.2	8.6	8.0
Median	20.8	16.1	13.9	10.5	7.4	5.3
Standard deviation	18.2	19.7	14.2	5.6	5.2	6.8
Asia						
Mean	10.1	22.4	20.4	14.5	12.5	10.3
Median	5.8	14.4	14.7	15.1	11.5	10.4
Standard deviation	7.3	16.4	11.2	4.5	4.8	4.0
			Capital to Assets[3]			
Latin America						
Mean	11.8	11.3	11.0	10.8	10.5	9.3
Median	11.8	10.9	11.1	10.9	9.6	9.9
Standard deviation	3.4	3.0	2.6	1.9	2.5	6.4
Eastern Europe						
Mean	8.9	9.5	9.9	10.1	10.1	10.7
Median	8.2	9.7	9.2	9.2	10.0	10.6
Standard deviation	2.7	3.6	4.1	3.0	2.3	1.7
Asia						
Mean	10.0	5.4	7.7	8.6	8.9	9.6
Median	8.8	8.9	8.9	8.5	8.5	9.0
Standard deviation	3.8	10.9	7.0	4.3	4.0	3.9
			Moody's Financial Strength Index[4]			
Latin America[5]						
Mean	. . .	. . .	. . .	. . .	28.1	20.9
Median	. . .	. . .	. . .	. . .	28.8	23.3
Standard deviation	. . .	. . .	. . .	. . .	12.9	17.5
Eastern Europe[5]						
Mean	. . .	. . .	. . .	. . .	26.1	27.9
Median	. . .	. . .	. . .	. . .	29.2	30.2
Standard deviation	. . .	. . .	. . .	. . .	12	12.2
Asia[5]						
Mean	. . .	. . .	. . .	. . .	15.4	17.5
Median	. . .	. . .	. . .	. . .	15.8	16.7
Standard deviation	. . .	. . .	. . .	. . .	10.9	10.1

Sources: National authorities; EDSS; IMF staff calculations.
*Latin America includes Argentina, Brazil, Chile, Colombia, Ecuador, Mexico, Peru, Uruguay, and Venezuela. Europe includes Bulgaria, Czech Republic, Hungary, Latvia, Lithuania, Poland, Romania, Russia, Slovak Republic, and Slovenia. Asia includes India, Indonesia, Korea, Malaysia, Pakistan, Philippines, and Thailand.
[1]For most countries after-tax profit as a percentage of average total assets.
[2]For most countries gross loans classified as substandard, doubtful and loss as a percentage of gross total loans.
[3]For most countries shareholders' equity (including profits) as a percentage of end-period total assets.
[4]Constructed according to a numerical scale assigned to Moody's weighted average bank ratings by country.
[5]Latest data column refers to January 3, 2003.

Figure 3.20. Market Valuation
(January 1997 = 100)



Sources: Datastream; and IMF staff estimates.

given by the ratio of banks' stock index to a broader market index. In addition, interdependencies of bank performance within regions can be inferred from correlations of banking system MVs.[2]

The weakening trend in key financial soundness indicators in *Latin America* masks considerable differences across countries. Although bank profitability (as measured by ROA) in the region on average shows a declining trend, the dispersion around this trend has increased. Developments in loan quality and capitalization are also characterized by a worsening on average and wide variation across countries. Financial strength ratings of the banking sectors in the region have also deteriorated, and these trends are confirmed by market valuations, which have been declining steadily since 1997. Reflecting the divergence of performance across countries, interdependence in bank performance—tracked by correlations among Latin American MVs—has been rather low and has turned negative more recently.

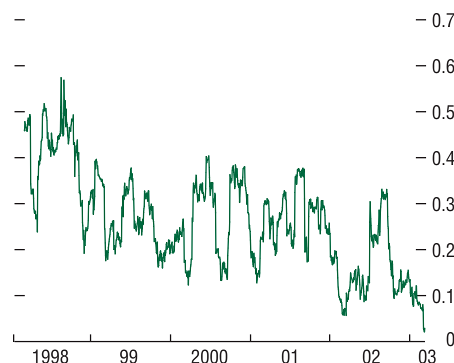
Developments in some of the countries in the region dominate the overall trends. On the whole, banks have thus far been quite resilient, and have remained well capitalized and have recently resumed profitability. In Argentina, operational losses and NPLs remain high and the solvency of the banks continues to be uncertain. Nonperforming loans have increased rapidly at banks in Uruguay, with the system now recording negative equity. Progress toward a lasting solution of the suspended banks, and on changes in prudential and supervisory regulations, continues to be slow. The asset quality of Venezuelan banks has also deteriorated, and high inflation and political instability are put-

[2]As measured by median pair-wise correlations of banking system MVs. For a region composed of *N* countries, the median of the $N(N-1)/2$ pair-wise correlations of MVs is computed using correlations among the monthly time series of MVs on a rolling window of one-year data.

Box 3.2. Emerging Market Contagion in 2002

By virtue of the size of its economy and its importance in the emerging bond market, developments in Brazilian markets can spill over to others. Last year, Brazilian markets were particularly affected by pre-election uncertainty that coincided with a period of heightened global risk aversion. While investor discrimination prevailed, cross-correlations with Brazil rose during the height of the sell-off in September, particularly in Latin America.[1] *The pressure on bond prices experienced by emerging markets during a sell-off in Brazil tended to exceed the price appreciation experienced by these markets during a rally in Brazil—underscoring the vulnerability of emerging bond markets.*

Emerging Bond Markets: Average Cross-Correlations



Sources: J.P. Morgan Chase; and IMF staff estimates.
Note: Thirty-day moving simple average across all pair-wise return correlations of 20 constituents included in the EMBI Global.

Emerging market contagion remained high toward the end of the second and throughout most of the third quarters of 2002. Uncertainty over policy continuity ahead of the October elections in Brazil contributed to a broad-based decline in emerging bond prices. Nevertheless, contagion remained below previous peaks, including the levels associated with the 1998 Russian crisis (see the first Figure).

A number of developments appear to have mitigated contagion:

- Leverage of emerging market investors declined in the aftermath of the Russian crisis, reflecting in part a withdrawal of macro hedge funds from the market as well as a reduction of counterparty risk by intermediaries and an increase in collateral requirements for lending operations. The scope for margin calls to trigger a vicious cycle thus has been reduced.
- The credit quality of issuers has been rising steadily. The share of investment-grade sovereign issuers in the emerging bond market universe rose from 12.8 percent in 1998 to 33 percent in 2002. The attendant improvement in fundamentals is supportive for the asset class, although credit ratings have proven volatile.
- Demand for sovereign bonds by local investors has also increased, most recently in Russia and Turkey, thus extending the investor base and potentially mitigating market volatility.
- Investor discrimination appears to have risen as the asset class has matured and policies have been strengthened in a number of countries.

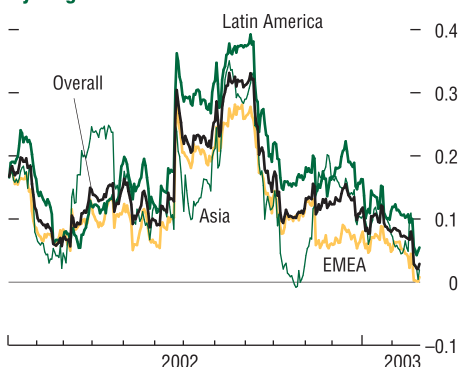
Nevertheless, average correlation measures tend to mask "cluster points" of high correlations. These may exist within specific geographical regions or among sovereigns with similar credit ratings. Breaking down the average cross-correlation into its regional components illustrates that contagion in Latin America was higher than in Asia and EMEA in 2002 (see the second Figure).

The volatility experienced by Brazil also had greater repercussions for its peers in Latin America than in EMEA or Asia. Brazil's

[1]The analysis is based on daily data since the end of 1997 for 20 countries included in the EMBI Global. Contagion is measured by the average cross-correlation, defined as the simple average of all pair-wise, 30-day rolling return correlations across 20 of the largest constituents of the EMBI Global.

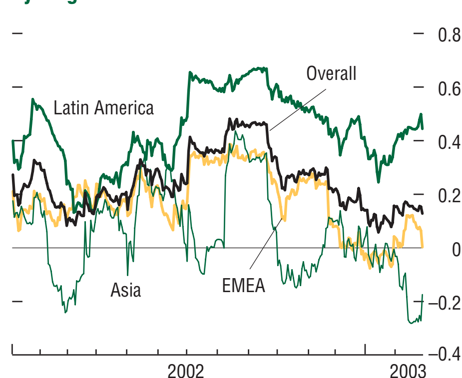
Box 3.2 *(concluded)*

Average Regional Cross-Correlations by Region



Sources: J.P. Morgan Chase; and IMF staff estimates.
Note: Simple average of all pair-wise correlations of all markets in a given region with all other emerging bond markets, regardless of region.

Average Pair-Wise Correlations with Brazil by Region



Sources: J.P. Morgan Chase; and IMF staff estimates.
Note: Simple average across pair-wise cross-correlations of all emerging bond markets in a given region with Brazil.

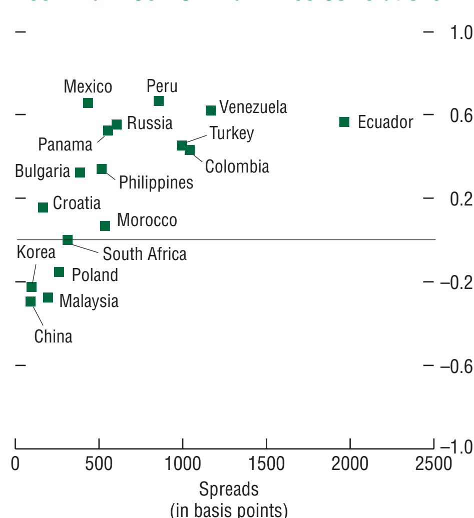
pair-wise correlation with markets in Latin America exceeded on average those with EMEA and Asia for virtually all of 2002 (see the third Figure).

Pair-wise correlations with Brazil rose, almost indiscriminately, to comparable levels for a number of the Latin American markets at the height of the Brazil sell-off on September 29, when the EMBI Global sub-index spread reached 2,451 basis points (see the fourth Figure). In contrast, the pair-wise correlations with Brazil spanned a wider spectrum for all regions, including Latin America, as Brazilian spreads reached their 2002 low of 699 basis points on March 15 (see the fifth Figure). Investor discrimination, therefore, appears to have weakened at the height of the sell-off.

To examine the behavior of correlations during periods of market turbulence, pair-wise correlations are calculated conditional on the returns for Brazil and grouped into three bands: (1) positive returns of Brazil exceeding one standard deviation from their five-year mean; (2) negative returns of Brazil exceeding one standard deviation from their five-year mean; and (3) a middle band with returns ranging within one standard deviation of the five-year norm (see the Table).

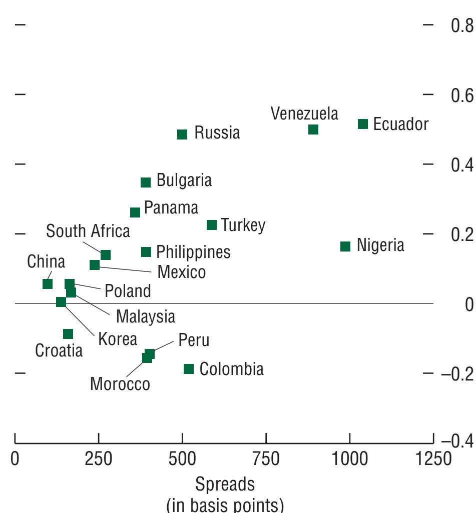
- Pair-wise correlations with Brazil were asymmetric and correlations tended to rise

2002 Brazil Sell-Off: Pair-Wise Correlations



Sources: J.P. Morgan Chase; and IMF staff estimates.
Note: Thirty-day moving simple average as of September 27, 2002; the intra-year high of Brazil's EMBI+ global sub-index spread.

2002 Brazil Rally: Pair-Wise Correlations



Sources: J.P. Morgan Chase; and IMF staff estimates.
Note: Thirty-day moving simple average as of March 15, 2002; the intra-year low of Brazil's EMBI+ global sub-index spread

Pair-Wise Correlations with Brazil Conditional on Brazilian Returns

Brazil Return	> +1 σ	+1 σ and –1 σ	< –1 σ
Latin America			
Average	0.35	0.39	0.49
Argentina	0.29	0.38	0.34
Colombia	0.23	0.26	0.51
Ecuador	0.33	0.33	0.50
Mexico	0.54	0.55	0.62
Panama	0.37	0.42	0.54
Peru	0.30	0.38	0.54
Venezuela	0.42	0.43	0.41
Emerging Europe, Middle East & Africa			
Average	0.17	0.20	0.43
Bulgaria	0.29	0.37	0.56
Croatia	0.26	0.11	0.57
Morocco	0.21	0.27	0.47
Nigeria	0.09	0.13	0.38
Poland	0.26	0.18	0.42
Russia	0.14	0.31	0.42
South Africa	0.18	0.03	0.34
Turkey	–0.10	0.19	0.28
Asia			
Average	0.01	0.15	0.31
China	–0.08	0.05	0.07
Korea	0.13	0.16	0.50
Malaysia	–0.06	0.11	0.19
Phlippines	0.04	0.26	0.46

Sources: J.P. Morgan Chase; and IMF staff estimates.

during sell-offs. For all markets, except Venezuela, pair-wise correlations associated with a sell-off in Brazil in excess of one standard deviation exceeded the correlation associated with a positive return in Brazil in excess of one standard deviation.

- Pair-wise correlations with Brazil were highest across Latin America. The vulnerability of these markets is underscored by the pronounced increase of correlations during periods of a Brazilian sell-off, including for Mexico. The high correlation with Brazil exhibited across Latin America during the height of last year's sell-off, captured in the fourth Figure, thus does not appear atypical.
- Pair-wise correlations also tended to increase sharply in EMEA during periods of a Brazilian sell-off, most notably for Bulgaria, Croatia, and Morocco. Turkey's relatively low correlation may in part reflect the increasing share of bond holdings by its domestic investor base.
- Pair-wise correlations with Brazil are lowest in Asia across the entire return spectrum, largely reflecting Asia's higher credit ratings as well as differences in investor bases. Within Asia, the Philippines and Korea, however, stand out as their respective correlations with Brazil rose sharply during periods of a sell-off. In the case of Korea, this outcome however appears to have been dominated by market behavior in the aftermath of the Asian crisis. As Korea regained its investment-grade status, correlations have broken down, also illustrated by the negative correlation exhibited in the fourth Figure. In contrast, the Philippines appear to have remained vulnerable to a Brazilian sell-off, as captured by its relatively high correlation exhibited in the fourth Figure.

Box 3.3. Collective Action Clauses: Latest Developments

At the end of 2002, emerging market international sovereign bonds issued with collective action clauses (CACs) amounted to about 30 percent of total sovereign bonds issued by the emerging markets (see the Table and Figure). However, little evidence suggests that investors actually eschew bonds issued with CACs. Rather, the terms of the bonds are typically determined by a variety of factors, including changes in the issuer and investor base, the desired currency denomination of the issue, and debt management considerations. While several emerging market issuers have shown interest in including collective action clauses in their non-London issuances in principle, countries have thus far been reluctant to issue bonds with CACs under New York law. Among industrial countries, the EU member states, Canada, and Switzerland have announced the intention to introduce CACs in their foreign law bonds.

In late February, Mexico became the first large emerging market issuer to include CACs in their newly issued $1 billion New York law governed bonds.[1] This Mexican issue will allow investors holding 75 percent of the bonds to modify the payment terms, and investors holding 25 percent of bonds to accelerate the bonds following an event of default. It will also make the use of exit consent more difficult by increasing the voting threshold from 66⅔ percent to 75 percent, for changing, among others, the governing law provisions and the waiver of immunity. The bonds, maturing March 3, 2015, carry a coupon of 6.625 percent, and were priced to yield 6.918 percent, or a spread of 312.5 basis points over 10-year U.S. treasuries. There was no evidence of a CAC premium priced in the new bond.

[1]Even though Egypt (2001), Lebanon (2000), and Qatar (2000) had issued bonds with majority restructuring clauses governed by New York law before, Mexico is the first large emerging market issuer who had publicly announced including such clauses in the bond issuance.

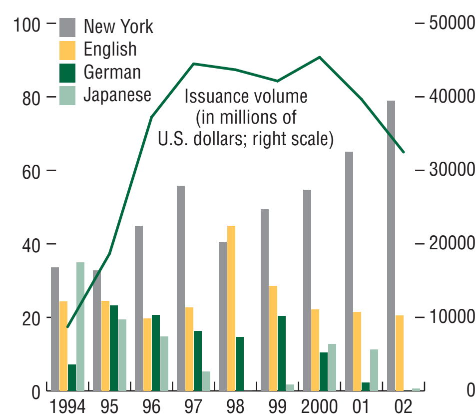
Emerging Markets Sovereign Bond Issuance by Jurisdiction[1]

	2001				2002			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
With CACs[2]								
Number of issuance	14	10	2	10	6	5	2	4
Volume of issuance	5.6	4.9	1.8	2.2	2.6	1.9	0.9	1.4
Without CACs[3]								
Number of issuance	16	17	6	18	17	12	5	10
Volume of issuance	6.7	8.5	3.8	6.2	11.6	6.4	3.3	4.4

Source: Capital Data.
[1]Number of issuance is in units. Volume of issuance is in billions of U.S. dollars.
[2]English and Japanese laws.
[3]German and New York laws. However, the Egyptian issuance of $1500 million out of New York in June 2001 contains CACs and thus reclassified.

There is broad agreement that the inclusion of contingency clauses in bond contracts could facilitate the restructuring process. However, discussions are still ongoing on what would constitute best practice for model contingency clauses. Efforts are under way in both the official community and the private

Emerging Market Sovereign Bond Issuance by Governing Law[1]
(In percent of total volume)



Sources: Capital Data; and IMF staff estimates.
[1]The total is the sum of bond issuance governed by New York, English, German, and Japanese laws.

sector to define a set of model clauses that could improve the process of debt restructuring for a sovereign in financial distress without compromising creditor rights.

More specifically, the official community through a working group of the Group of Ten (G-10) has consulted with market participants, issuers, and legal experts, and has developed a set of recommendations that aim at bringing about a positive change in the debt restructuring process. In its report issued in September 2002, the G-10 proposed a set of clauses based on existing practices with respect to bonds governed by English law and reflect the principles of (1) fostering early dialogue, (2) ensuring effective re-contract, and (3) minimizing litigation by minority creditors.

Six prominent private sector financial groupings (EMCA, EMTA, IIF, IPMA, SIA, and TBMA) communicated an initial proposal of a set of model clauses in May 2002.[2] Following the IMF Annual Meetings, these associations plus the International Securities Market Association (ISMA) continued to refine these clauses with the objective of reaching agreement within the private sector on a market standard for contingency clauses in bonds under New York and English laws.

There is broad agreement that a set of marketable model clauses must contain provisions on initiation, representation, majority restructuring, and enforcement. There is also broad agreement that model clauses would need to call for enhanced transparency and the provision of more information by the issuers in the event of a default. One key area where official and private sector approaches have differed thus far is the voting threshold on changing key terms that would bind minority shareholders.

More work needs to be done to achieve a broad international consensus on a consistent set of contingency clauses. Moreover, emerging market issuers have yet to embrace more broadly the inclusion of CACs into their new bond issuance. While it is still early to draw firm conclusions, the recent Mexico issue may be viewed as a welcome move from theory to practice and as a test of market acceptability of meaningful clauses under New York law that could pave the way forward.

[2]Emerging Markets Creditors Association (EMCA), Emerging Markets Traders Association (EMTA), Institute for International Finance (IIF), International Primary Market Association (IPMA), Securities Industry Association (SIA), and The Bond Market Association (TBMA).

ting further pressure on their core profitability. But the banking system in Brazil appears to have weathered considerable stress. Profitability, loan quality, and capital adequacy of the banking system in Mexico have improved recently. The banking system in Chile also remains robust despite a modest increase in NPLs.

Bank performance indicators in emerging markets in *Europe* have generally improved substantially since 1998. From being negative in 1998, average ROA has climbed to a remarkable 1.6 percent, while the NPL ratio has declined by 11 percentage points and capitalization has increased by about 2 percentage points. The generalized improvement is also evidenced by the sharply declining dispersion of financial soundness indicators across countries, higher financial strength ratings, and climbing market valuations. Measured interdependencies of bank performance in the region, however, have been low and have increased only in the past year.

Profitability and asset quality continued to strengthen in key countries in the region, including Bulgaria, the Czech Republic, Hungary, Romania, and Russia. Nonperforming loans remain above 20 percent in Poland,

although loan classification criteria there is stricter than in most other countries, and the banking system continues to be viewed positively by the market. The distress in the banking system continues to persist in Turkey, with deteriorating asset quality and capital adequacy, and depressed profitability. Resolution of problem banks continues to lag behind and is a significant drag on the system, reflected also in weaker financial strength ratings.

Developments in bank soundness indictors are generally encouraging in *Asia*. Profitability has improved in most countries, with the average ROA turning from negative in 1997–1999 to about 1 percent more recently. The quality of the loan portfolio has improved, although the average NPL ratio remains slightly higher than 10 percent. Capitalization remains stable—with an average EA of about 9 percent—and financial strength ratings and market valuation have improved. Interdependencies in bank performance within the region spiked during the Asian crisis and remained high until the end of 1999, but have declined substantially since then, owing to varying performance across countries.

Improvements in bank performance in Asia have been somewhat uneven. Banks in Malaysia and Korea have made remarkable progress in terms of profitability, and asset quality, helped by progress in NPL disposals and corporate restructuring. Although banks in Thailand and Indonesia show signs of improving profitability, market analysts remain cautious in assessing banking and financial sector performance. Continuing concerns stem from the fact that the decline in NPLs largely reflects transfers of nonperforming loans to their asset management corporations, and credit risk, particularly in Indonesia, continues to be a concern. Banks in India have shown some improvement in asset quality, profitability, and market valuation, while those in the Philippines continue to experience a further worsening of several financial soundness indicators as well as declines of the market valuation of the banking sector.

Among the *other emerging markets*, banks in Lebanon remained highly exposed to sovereign risk, owing to their large exposure to government debt. Credit quality remains a problem in Egypt, especially in public sector banks, and the system is still vulnerable to further credit quality problems due to a weak economy and a sharp exchange rate depreciation. Although South African banks have performed satisfactorily, their asset quality is likely to suffer from the increase in corporate defaults currently experienced in several sectors.

Outlook

The past year highlights the vulnerability of emerging markets to reversals in investor sentiment and capital flows that can arise from either external or internal developments. The combination of an unsupportive external environment and investor concerns over the risk of policy discontinuity in key emerging market countries limited the availability and raised the cost of capital to emerging market borrowers. These developments highlight the importance of “self-insurance” as a means of mitigating the impact of externally induced volatility. Indeed, a number of emerging market countries have taken steps to insulate themselves from external financial market developments through, among other moves, the development of local financial markets (see Chapter IV).

The past year also illustrates that the sustained pursuit of sound policies pays off. Marked investor discrimination was evident in both the secondary and primary emerging bond markets. Contagion thus remained low, reflecting changes in the structure of the emerging market investor base, steps to promote transparency to help investors distinguish among borrowers, and policies aimed at promoting financial stability. The latter policies have been reflected in notable improvements in banking sector regulation and capitalization, although these have varied by

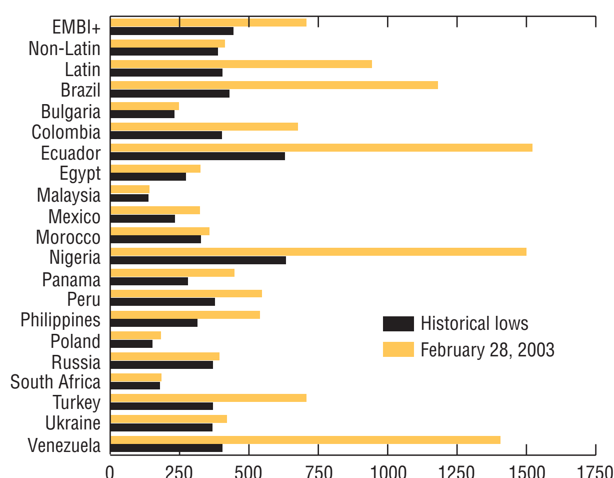
region, and much more is needed to bolster domestic banking systems.

Credit spreads widened most for borrowers with low credit ratings or perceived to be most at risk for an unfavorable reorientation of policies. These same borrowers met the most resistance in the primary markets. In contrast, investment-grade borrowers enjoyed relatively easy market access, and spreads in the secondary market for these issuers in Asia and Eastern Europe fell to near record lows (Figure 3.21). Most Asian borrowers are likely to continue to benefit from strong regionally driven demand for new issues. There is now little sign that the enthusiasm over EU accession will unravel in a disruptive manner. But the degree of spread compression raises the likelihood of occasional reversals, especially if the market's current expectations of a smooth path to accession is disappointed. The current marked bifurcation in the secondary emerging bond market is likely to persist, barring a substantial improvement in investor sentiment toward high-yielding emerging market borrowers.

The risk that the external environment could again become unsupportive remains palpable:

- The hesitant and uneven global economic recovery could once again be put in doubt, undermining investor expectations for corporate earnings growth and the basis for current stock market valuations. In that event, falling equity markets could once again increase investor risk aversion and perception of risk and contribute to a renewed curtailment of capital flows to emerging markets.
- While a continued gradual decline in the dollar is unlikely to prove problematic to emerging markets, a precipitous fall in the context of heightened and generalized risk aversion could be more problematic.
- The risks to emerging markets posed by a possible war with Iraq could be transmitted through higher oil prices; reduced consumer and business sentiment and expenditure leading to slower global growth; and

Figure 3.21. Sovereign Spreads Versus Historical Lows
(In basis points)



Source: J.P. Morgan Chase.

heightened investor risk aversion that raises the cost and reduces the availability of capital to emerging markets. Markets appear to have taken a rather sanguine view on the impact of an eventual war (see Box 3.1). A less benign outcome could heighten risk aversion, trigger flows to safe haven assets, and amplify the home-market bias of investors. A renewed curtailment of flows to emerging markets focused in particular on sub-investment-grade credits would likely result from a war-induced heightening of risk aversion.

In the primary bond market, issuance is expected to remain muted this year. Most analysts expect sovereign bond issuance to total some $25 billion, about $7 billion less than 2002. Moreover, notwithstanding the rebound in sub-investment-grade issuance in January, most analysts expect credit tiering to persist this year. Investment-grade borrowers in Latin America, Eastern Europe, and Asia are expected to retain unimpeded market access, while sub-investment-grade issuers, especially in Latin America, are likely to experience periods of difficult access.

The primary market is expected to remain closed to sovereign issues by Brazil until spreads fall considerably further from about the 1,300 basis points prevailing at the end of January. Uruguay, Venezuela, and Ecuador would have difficulty accessing the markets at present. Argentina is out of the markets until it goes through its debt restructuring. Other Latin American countries should be able to retain market access.

However, if investor concerns about Brazil were to re-intensify, the market would once again close to most sub-investment-grade Latin American issuers as it did for an extended period last year (see Box 3.2 and the Appendix to this Chapter). In addition, market access may become more restrictive for Turkey and the Philippines, notwithstanding the support they have received from strong local investor demand and placements in recent months.

In the secondary emerging bond market, most analysts expect returns to moderate from the stellar performance of last year. Nevertheless, these returns are generally expected to continue to compare favorably with alternative investments. The main source of return is expected to derive from the high coupon on emerging market bonds. U.S. treasury yields, which contributed to emerging market bond returns last year, are not expected to fall significantly further. Moreover, the scope for further spread compression appears concentrated in a few high-yielding countries, including in particular Brazil, as spreads are approaching all-time lows in the case of some Asian and Eastern European issuers. As a result, returns for 2003 are widely expected to be about 7 to 10 percent.

The relatively strong risk-adjusted performance of emerging market bonds in recent years (Figure 3.22), mounting disenchantment with equities, and low yields on safer government bonds have kindled institutional investor interest in emerging market bonds. Emerging market bond mandates were initiated by institutional investors in the fourth quarter of last year and most emerging market bond managers expect continued inflows. A further technical factor seen supporting the market this year is the high amount of coupon and amortization payments falling due in 2003. Some $20 billion in sovereign payments are due from EMBI+ countries, and some $30 billion from EMBIG (Diversified), against a backdrop of falling gross issuance. Brazil, Colombia, Mexico, Venezuela, Russia, Turkey, and the Philippines all have bonded payments substantially exceeding $1 billion (over $4 billion in the case of Brazil, Turkey, Russia, and Mexico), and, with the exception of the Philippines and Turkey—which have relatively small weights in the index—none of these countries has a stated goal of being a net issuer this year.

The baseline outlook of positive but slow global economic growth; limited inflationary pressure; low yields on major domestic gov-

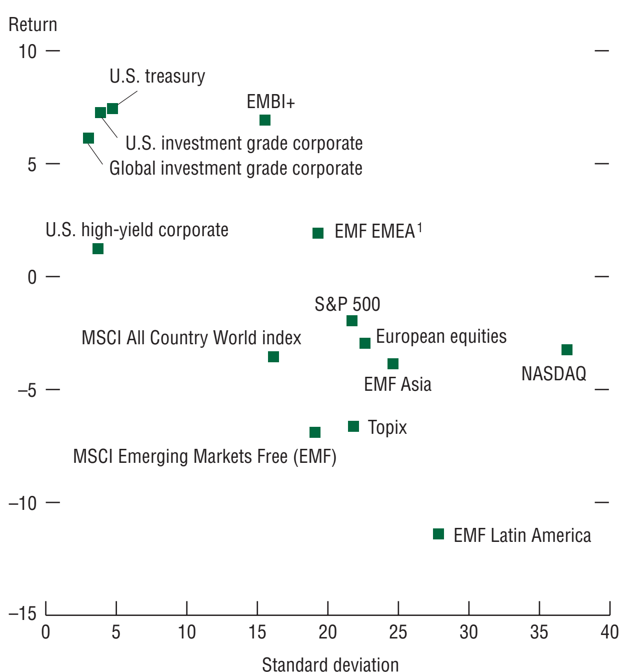
ernment bonds; and continued progress in strengthening the balance sheets of the household, corporate, and financial sectors in the major economies could create a favorable environment for emerging market bonds. Some of the accumulation of cash by both retail and institutional investors (see Chapter II) could be allocated to emerging market bonds, attracted by their high yields and track record of solid risk-adjusted returns, especially relative to alternative investment opportunities. Provided that these flows are based on a realistic assessment of fundamental relative strengths, and do not merely reflect an attempt to reach for yield in an environment of limited return prospects elsewhere, emerging markets should benefit.

Appendix: A "Feast or Famine" Dynamic Prevails in Emerging Primary Markets

Emerging debt markets have regularly been punctuated by periods of primary market closure to a wide variety of issuers. Some issuance "famines" have affected all issuers irrespective of region or credit rating. Others have been more selective, focusing on particular regions or points along the credit quality spectrum. Such periodic interruptions result in a "feast or famine" dynamic in primary markets in which periods of closure are followed by a glut of issues that can quickly saturate the market, and cause subsequent "indigestion" in secondary markets as well (Figure 3.23). The most recent issuance famine covering most of May–November of last year was concentrated on, but not limited to, sub-investment-grade Latin American issuers.

The behavior of markets suggests that the strength of this dynamic may have increased over time. Moreover, the growing influence of changing global investor sentiment and liquidity conditions on emerging primary debt markets renders the mitigation of the feast or famine dynamic difficult period looks strange, particularly for lower rated emerging market countries.

Figure 3.22. Risk Versus Return, January 1998–December 2002

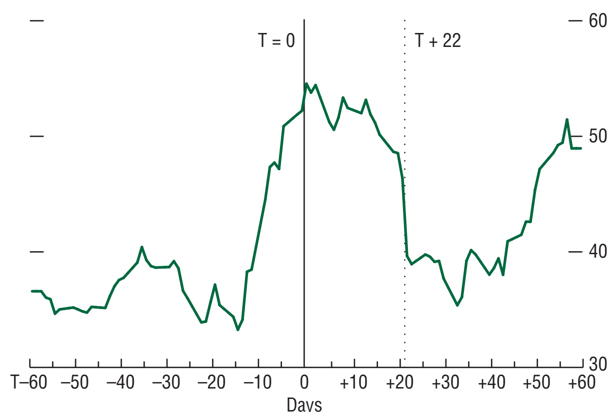


Sources: Bloomberg L.P.; J.P. Morgan Chase; Merrill Lynch; Morgan Stanley Capital International; and IMF staff estimates.
[1]Data available from July 2001 only.

Figure 3.23. EMBI+ with Periods of Opening and Closure
(In basis points)

Sources: J.P. Morgan Chase; and IMF staff estimates.

Figure 3.24. EMBI+ Volatility During Market Closures
(In percent)



Sources: J.P. Morgan Chase; and IMF staff estimates.

In the aftermath of the Asian and Russian crises in 1997–98, the investor base in the secondary market for emerging market bonds has changed in a way that increases stability in part by reducing the degree of leverage in the system (see Box 3.2). Until the fairly recent increase in leveraged investor activity, hedge funds had diminished considerably in importance, and some crossover investors have provided increased support, particularly for investment-grade issuers. Meanwhile, local investors in Asia, the Middle East, some countries in Latin America, and the Caribbean have burgeoned. In Eastern Europe, "convergence" funds that invest in the local bond and money markets of Central and Eastern European markets on the road to EU accession have also made their presence felt. Such factors have frequently been cited as a cause for diminished contagion in secondary markets, and a maturing of the asset class.

At first glance, the generally diminished role of hot money and a widening investor base might normally be expected to contribute to the maturing of primary markets as well, leading to a smoother path of access of creditworthy issuers to primary markets. Building on prior work,[3] this Appendix analyzes the dynamics of market closure and reopening and puts the closure of last year in perspective. It concludes with some comments on the scope for mitigating the impact of the feast or famine dynamic in the primary market for emerging market bonds.

Current Market Reopening in Perspective

The fourth quarter of 2002 saw the end of yet another issuance famine. Sub-investment-grade credits, particularly in Latin America, were largely shut out of the primary markets

[3]See IMF (2001a and b). The former (2001a) documents the existence and basic features of market closures, and the latter (2001b), while not exclusively focused on closures, explores explanatory variables for the level of emerging market debt issuance.

for 20 of the 27 weeks following the second week of May. By historical standards, this was indeed a severe closure. Much of the severity was attributed to economic and political uncertainty surrounding Brazil, and its potential spillovers to the Latin American region. While Brazil-related uncertainty did play a part, some global factors were at play, including a slump in global equity markets, increased equity market volatility, and what financial market participants deemed to be a large spike in risk aversion leading to dislocation in most credit markets. That these broader global factors did play a significant role is well illustrated by the fact that issuance of emerging market bonds was curtailed even for investment-grade issuers—a fate that their corporate counterparts in U.S. credit markets were also unable to escape completely. Subsequent to the market closure ending in late October 2002, the usual pattern of an issuance glut followed, with over $20 billion of new issuance hitting the markets over the subsequent 9–10 weeks.

To put this episode in some context, it is useful to begin with three enduring (and intuitive) stylized facts regarding market closures, derived from the previous studies cited:

- Closures typically occur following a period of heightened secondary market *volatility*, and do not appear to be dependent on the *level* of secondary market spreads.
- They may occur either due to binary events or expectations of such events in emerging markets, or due to extreme uncertainty in the external environment.
- The duration of closures purely due to external environment considerations is typically shorter than those caused by emerging market specific events.

The weekly issuance data of emerging market bonds during 1994–2002 suggest that there have been 21 periods of market closure, 13 of which affected the broad spectrum of emerging market issuers, while the others affected mainly sub-investment-grade issuers.[4] The definition of a closure (see footnote 4) reduces the variation considerably, with the caveat that there are several more one to two week periods during which issuance seems depressed. On average, closures so defined last 22 days. Most of these closures are associated with emerging market specific risks (credit events, devaluations, and their buildups). The remainder are associated with the external environment (interest rate anxieties, mature equity market downturns, mature spread market concerns).

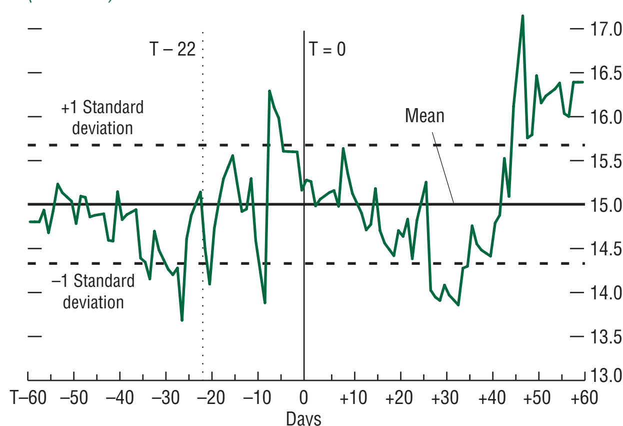
To gain better insight into such periods, several variables were examined both prior to a closure and subsequent to a reopening. The salient results are presented in the form of an event study. The event graphs have a vertical line at T = 0 signifying either an opening or a closing of primary markets, and the average path of that variable for two months before and after the closure. For example, Figure 3.24 shows rolling two-week EMBI+ index volatility, with a vertical line at T = 0 signifying closure of the market. Figure 3.24 clearly shows that closures are associated with an abrupt spike in secondary bond market volatility, and reopenings (on average at T + 22) are associated with an equally sharp reduction in volatility.

Among the external factors influencing the feast and famine dynamic, mature equity market implied volatility stands out. Market closures seem to be quite strongly associated with a rising level of the VIX index[5]—a measure of

[4]A market closure is defined as a period of more than two weeks during which overall emerging market sovereign issuance is 20 percent or less of the period's trend. Additionally, we applied a 40 percent or lower filter for sub-investment-grade issues, which produced seven "additional" closures. Seasonal effects have been taken into account in both filters.

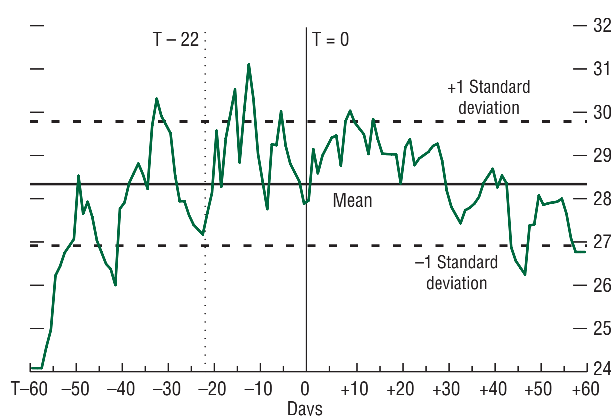
[5]The index is a gauge of future market volatile based on the weighted average of eight puts and calls traded on the Chicago Board Options Exchange, with a rising VIX index implying higher expected volatility.

Figure 3.25. VIX Index and Primary Market Closures
(1994–96)



Sources: Bloomberg L.P.; and IMF staff estimates.

Figure 3.26. VIX Index and Primary Market Closures
(1997–2002)



Sources: Bloomberg L.P.; and IMF staff estimates.

implied U.S. equity market volatility—and openings with a gradual falling off in the index (Figures 3.25 and 3.26). After the Asian crisis, this link appears much stronger than during 1994–96.[6]

The return and volatility of the EMBI+ index appear to be influenced by changes in the VIX index. While the data do not support the hypothesis that the VIX index Granger-causes EMBI+ returns or volatility, large changes in the VIX index have a clear correspondence with both EMBI+ returns and volatility, with a stronger correspondence with EMBI+ volatility.

To further examine the possibility that primary market closures may have become more linked to external environment conditions over the years, we also looked at U.S. corporate bond market spread differentials across the credit quality spectrum (Figures 3.27 and 3.28). Two frequently cited gauges of risk aversion in these markets are the spread differentials between double-B and triple-B rated corporate spreads (the “junk” bond premium), as well as the triple-B to single-A spread differentials (risk premium in the high-grade market). Once again, we observe that emerging market closures are increasingly associated with a rising corporate junk bond premium after 1997, while reopenings are associated with a falling premium. There was no discernible similar pattern with the high-grade market risk premium. However, it may be premature to conclude that high-grade secondary market dynamics have little bearing on emerging primary market activity. Clearly, in periods during which banks are shrinking their balance sheets to lower risk, the coincidence of rising high-grade risk premia and increased volatility in emerging secondary and primary markets will likely be strong, as seen in the third quarter of 2002. Furthermore, this link is also likely to be

[6]In these and all subsequent graphs T = 0 indicates a “reopening” of the market.

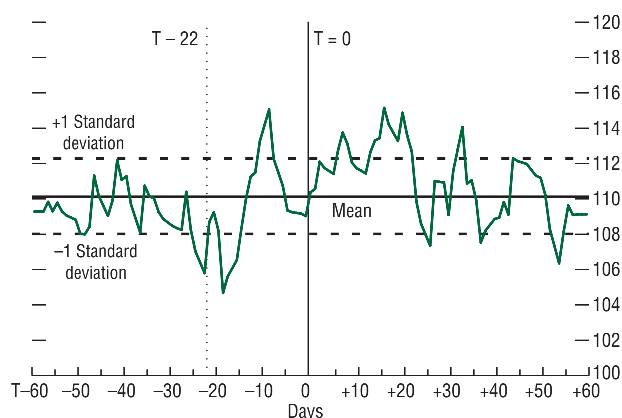
strengthened in the future as the share of emerging market bonds that are investment grade rated rises, making the ownership of high-grade corporate debt and emerging market sovereign debt increasingly integrated.

In periods preceding emerging market closures when there has been no proximate emerging markets-specific cause, the volatility of the EMBI+ does not rise in a smooth fashion even though the "junk bond premium" may have been rising quite steadily for up to three months before the market closure. There appears instead to be an abrupt move up in EMBI+ volatility followed by primary market closure. In other words, there is some "catch up" price correction in the secondary emerging bond market, and this has not lessened over time.

A closer look at market reopenings provides an insight into the "feast or famine" dynamic. Periods of closure generally tend to shut out the riskiest credits (or the most frequent borrowers) first. The period of closure appears to create pent-up pressure to issue as soon as possible into the reopening. This pent-up demand partly reflects the tendency for the riskiest credits or the most frequent borrowers to be the first to be shut out of the primary market. In addition, issuers perceived that it is beneficial to be among the first issue into a reopening. As a result, there is a tendency to have an issuance glut at the time of reopening, which almost invariably causes secondary market indigestion a few weeks later. For example, sub-investment-grade new issue volumes in the first week of a reopening have become increasingly large since 1996. During 1996–2002, the average first week of reopening typically saw sub-investment-grade issuance volume of some 40 percent higher than "normal" levels, with such above-normal issuance continuing (typically for three weeks) before another period of short closure (one to four weeks).

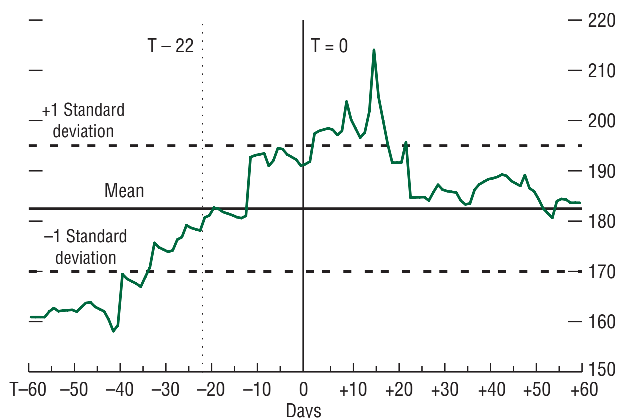
The top issuers that have historically come to market in large volumes immediately following a reopening include Argentina, Turkey, Mexico, and the Philippines, in that order.

Figure 3.27. BBB - BB Spread Differentials and Primary Market Closures
(1994–96; in basis points)



Sources: Merrill Lynch; and IMF staff estimates.

Figure 3.28. BBB - BB Spread Differentials and Primary Market Closures
(1997–2002; in basis points)



Sources: Merrill Lynch; and IMF staff estimates.

Given that all of these issuers have experienced individual loss of market access, even when the broader market was open, another interesting question is whether there is a secondary market spread level at which market access is restored to an individual borrower. A simple rule of thumb suggests that market access appears to become increasingly difficult beyond a spread of 900 basis points. It is not possible, however, to discern whether this is a supply side effect driven by issuer reluctance to lock in high rates, or whether it stems from the demand side, as investors consider the risks associated with such spreads incompatible with primary market purchases. Argentina appears to be an exception to this rule of thumb and has twice issued at spreads of 1,100 basis points or more.

Setting aside global and macro factors, market participants are (somewhat predictably) divided as to whether the structure of the market itself tends to encourage the issuance gluts that follow reopenings. Investment banks (the “sell side”) commonly argue that these spurts are unavoidable and broadly follow the changing appetite of the end investors (the “buy side”) in a risky asset class where the “fear and greed” dialectic is an entrenched feature. The “buy side” on the other hand argues that investment banks frequently exaggerate such factors to issuers and encourage them to issue more and tend to cluster new issues as each investment bank wants to lead a transaction earlier than its competition. They also point to the fact that investment banks have been increasingly squeezed on their fees for managing transactions in one of the few relatively risk-free activities from their standpoint. Some on the “buy side” therefore argue that issuance gluts following reopenings are, at least in part, a volume-driven response by the “sell side” to shrinking fees.

Is This Reopening Different?

With this backdrop, it would appear that the reopening that began in the fourth quarter of 2002 differs significantly from other reopenings:

- It is the first reopening of emerging primary markets since the advent of the euro in which the U.S. dollar market has had to bear the brunt of the new issues. The share of dollar issuance in the fourth quarter of 2002 climbed to 83 percent, its highest quarterly value since 1999 (compared with a low of 51 percent in the second quarter of 2000). This picture is unlikely to change as the retail-dominated euro investor base (which absorbed just 5 percent of bond issues in the fourth quarter of 2002) suffered a long-term setback following the Argentine default. The yen market remains moribund, with only a few select issuers seen as having successful issuance prospects this year. Heavy reliance on the dollar market raises the risk that the issuance glut could lead to a more pronounced than usual bout of secondary market indigestion, adding further fuel to the “feast or famine” dynamic. Mitigating this risk at present is the absence from the market of two traditionally large issuers, Brazil and Argentina.
- Issuance patterns strongly illustrate that “tiering” remains prevalent. Of the approximately $20 billion in bonds that have been issued in the 9–10 weeks following this “reopening” of emerging primary bond markets since October 1, roughly 45 percent of the issuance is accounted for by investment-grade issuers. The picture is strengthened when the lens is further focused on sovereign debt issuance. Of the roughly $9 billion in sovereign issuance since October 1, nearly 50 percent is accounted for by investment-grade issuers. Previous reopenings of primary markets were usually characterized by a much higher share of sub-investment-grade issuers, precisely because these were the issuers that were hit hardest by market closures. The fact that sovereign bond issues have much more “crossover” investor sup-

port now compared to even two or three years ago masks the true degree of difficulty in obtaining financing from a "dedicated" pool of world savings.

- Conditions in emerging primary markets in the most recent reopening showed a closer correspondence (in terms of timing and secondary market behavior) with mature credit markets than any other previous reopening, perhaps reflecting a trend toward closer financial market integration linked to changes in the investor base for emerging markets.

For countries seen as having sturdier fundamentals and in particular a growing domestic investor base, the development of local markets (toward which external investors are also becoming increasingly open) provides one possible means of insulation from the feast or famine dynamic. However, the efficacy of this backstop depends largely on the extent to which there is true domestic sponsorship for debt securities. Otherwise, such dynamics in external markets would merely replicate themselves in local markets.

Finally, on a second order level, if issuance gluts following reopenings are truly affected by the imperfect ability of both issuers and the "sell side" to accurately gauge investor appetite, this boils down largely to a "traffic regulation" problem. To some limited extent, this can be remedied by the establishment of more direct communication links between issuers and end-investors themselves, as part of broader efforts to strengthen investor relations.

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