

**FOR
AGENDA**

SM/02/156

May 20, 2002

To: Members of the Executive Board
From: The Secretary
Subject: **Global Financial Stability Report**

Attached for consideration by the Executive Directors is a paper on Global Financial Stability Report. Conclusions appear on page 74. This subject is tentatively scheduled for discussion on Wednesday, May 29, 2002.

The report will be revised for publication in light of the Executive Board discussion. If Executive Directors have additional comments, they may notify Mr. Tran by the close of business on Friday, May 31, 2002. An edited version of the report will be published on the Fund's external website, in preparation for a press conference tentatively scheduled for Tuesday, June 11, 2002.

Questions may be referred to Mr. H. Tran, ICM (ext. 37324).

Att: (1)

Other Distribution:
Department Heads

INTERNATIONAL MONETARY FUND

Global Financial Stability Report

Prepared by the International Capital Markets Department
(In Consultation with other Departments)

Approved by Gerd Häusler

May 17, 2002

	Contents	Page
Preface.....		iv
Chapter I	Overview.....	1
	Corporate Profitability Impacts on Financial Markets.....	1
	Corporate Profitability and the Banking Sector.....	2
	Financial Market Activities of Insurance Companies.....	3
	Developments in Emerging Markets.....	3
	Local Equity Markets.....	4
Chapter II	Recent Developments.....	5
	Mature Markets.....	6
	Mature Market Vulnerabilities—The Weakness in Japan’s Banking Sector.....	17
	Emerging Market Developments and Financing.....	20
Chapter III	The Financial Market Activities of Insurance and Reinsurance Companies.....	33
	Insurance and Reinsurance Financial Activities.....	33
	Financial Efficiency and Stability Questions Raised by Insurers’ Financial Activities.....	47
	Some Concluding Thoughts.....	55
Chapter IV	Emerging Equity Markets.....	59
	Emerging Market Equities as an Asset Class for Foreign Investors.....	59
	Domestic Equity as an Alternative Source of Funding.....	71
	Conclusions.....	74

Boxes

2.1	Enron: Lessons Learned, and the Response.....	7
2.2	Mature Equity Market Valuations	9
2.3	Are Forward Short Rates Useful Indicators of Market Expectations?	12
2.4	The Shrinking U.S. Commercial Paper Market.....	15
2.5	The Balance of Risks for Emerging Equity Markets	28

Tables

2.1	Performance of Mature Equity Market Sectors, 2002:Q1	6
2.2	Emerging Market Financing Overview	20
2.3	Index Performance	21
2.4	Performance of Emerging Bond Markets	22
2.5	Sovereign Spreads and Ratings	22
2.6	Currency of Issuance.....	24
2.7	Performance of Emerging Equity Markets.....	25
3.1	Life Insurance: Premium Growth Rates	39
3.2	Profitability Decomposition of Major Non-Life Markets.....	40
4.1	Equity and Bond Returns	61

Figures

2.1	Evolution of Consensus 2002 GDP Growth Forecasts.....	5
2.2	Liquidity and Credit Premia Index	5
2.3	Mature Equity Market Dollar-Denominated Indices	6
2.4	International Yield Curve Differentials	11
2.5	Expected Policy Rates: Federal Funds Futures, 2002.....	11
2.6	Credit Market Spreads	13
2.7	European Credit Market Spreads.....	13
2.8	Japan Credit Curves	14
2.9	Major Currencies Against the U.S. Dollar.....	16
2.10	Emerging Markets Financing.....	20
2.11	Emerging Market Spreads.....	21
2.12	Bond Issues	23
2.13	Average Correlations of the Returns on Emerging Equity Markets Indices	25
2.14	Net Inflows into U.S. Equity Mutual Funds	26
2.15	Emerging Market Earnings Forecasts.....	26
2.16	Equity Placements.....	27
2.17	Syndicated Loan Commitments.....	29
2.18	Loan Weighted Interest Margin, 1995–2002	29
2.19	Latin American Currencies	30
2.20	Asian Currencies: Cross Rates against the Yen.....	31
2.21	Asian Currencies: Non-Deliverable Forward Implied Yields	31

3.1	Total Financial Assets of Institutional Investors and Banks: United States and Japan	34
3.2	Financial Assets of Institutional Investors and Banks: Selected Euro Area Countries and United Kingdom.....	35
3.3	Holdings of Financial Securities by Insurance Companies and Banks.....	36
3.4	Holdings of Securities Relative to Domestic Market Size.....	37
3.5	United States: Corporate and Foreign Bonds.....	41
3.6	Balance Sheet Assets of Insurance Companies: United States and Japan	42
3.7	Balance Sheet Assets of Insurance Companies: Selected Euro Area Countries and United Kingdom	43
3.8	Global Insurance Industry Results	44
3.9	Non-Life Insurance: Combined Ratios in the Industrialized Countries	45
4.1	Equity and Bond Performances	63
4.2	Risk-Return Tradeoff for EM and U.S. Stocks Portfolios	66
4.3	Valuation Indicators in Emerging Equity Markets	68
4.4	Correlations between Returns in Emerging and U.S. Equity Markets	69
4.5	Stock Market Capitalization and Bank Credit	72
4.6	Domestic and International Equity Issuance.....	73

Preface

This is the second issue of the *Global Financial Stability Report*, a quarterly publication launched in March 2002 to provide a regular assessment of global financial markets and to identify potential systemic weaknesses that could lead to crises. By calling attention to potential fault lines in the global financial system, the report seeks to play a role in preventing crises before they erupt, thereby contributing to global financial stability and to the prosperity of the IMF's member countries.

The report was prepared by the International Capital Markets Department, under the direction of the Counsellor and Director, Gerd Häusler. It is managed by an Editorial Committee comprised of Hung Q. Tran (Chairman), Donald J. Mathieson, and Garry J. Schinasi, and benefits from comments and suggestions from William E. Alexander, Charles R. Blitzer, Peter Dattels, David Ordoobadi, and Effie L. Psalida. Other contributors to the report are Torbjorn Becker, Peter Breuer, Jorge Chan Lau, Martin Edmonds, Anna Ilyina, Kenneth Kang, Charles Kramer, Subir Lall, Gabrielle Lipworth, Chris Morris, Martin Mühleisen, Ramana Ramaswamy, Jorge Roldos, Calvin Schnure, Srikant Seshadri, R. Todd Smith, Mazen Soueid, and Amadou Sy. Anne Jansen, Oksana Khadarina, Yoon Sook Kim, Advin Pagtakhan, and Peter Tran provided research assistance. Caroline Bagworth, Vera Jasenovc, Ramanjeet Singh, Adriana Vohden, and Joan Wise provided expert word processing assistance. Jeff Hayden of the External Relations Department edited the manuscript and coordinated production of the publication.

This particular issue draws, in part, on a series of informal discussions with commercial and investment banks, securities firms, asset management companies, insurance companies, pension funds, stock and futures exchanges, and credit rating agencies in China, Germany, Hong Kong SAR, Hungary, Italy, Japan, Poland, Singapore, Switzerland, Thailand, the United Kingdom, and the United States. The report reflects mostly information available up to May 10, 2002.

The study has benefited from comments and suggestions from staff in other IMF departments, as well as from Executive Directors following their discussions of the *Global Financial Stability Report* on May 29, 2002. However, the analysis and policy considerations are those of the contributing staff and should not be attributed to the Executive Directors, their national authorities, or the IMF.

I. Overview

The economic recovery that began during the first quarter of 2002, has brought improvements in financial market conditions. Mature equity and bond markets have further stabilized. Most emerging market countries continue to have access to international capital markets, and their bond spreads have declined. The near-term outlook thus appears largely free of imminent threats to global financial stability.

However, one important source of uncertainty remains—the recovery and quality of corporate profits in mature markets. In fact, it is the main common theme shaping the major issues discussed in this report. In the period ahead, the level of corporate profitability will significantly influence capital expenditure, which so far is the missing component in the current recovery. Questions surrounding the quality of reported corporate profits, in the aftermath of Enron’s failure, continue to have an adverse impact on international equity and corporate bond markets. Also, weak corporate profitability has had a negative effect on the quality of the balance sheet of some banks and, to a lesser degree, insurance companies. In the latter case, this highlights an emerging risk, as insurance companies have substantially expanded their financial market activities in recent years.

In the medium term, significant shifts in relative profitability between countries and regions may also give rise to changes in the pattern of international capital flows. Were this to occur abruptly or in a disorderly manner, it could represent a potential risk to financial stability.

Corporate Profitability Impacts on Financial Markets

The risk of an equity price correction due to disappointing corporate earnings remains a possibility, not only for the United States but also in other regions. Moreover, the quality of corporate earnings has come under scrutiny in the wake of Enron and other high-profile bankruptcies (see Chapter II). Markets are still not sure what the unwinding of some measures used to drive up share prices will mean for reported earnings and equity valuations. Companies whose revenue and earnings growth are seen as unsustainable, or believed to derive from questionable accounting practices (particularly in the treatment of mergers and acquisitions) have had their share prices heavily discounted by the markets. Highly-leveraged companies have also come under pressure either to deleverage, or to extend the maturities of their liabilities to avoid refinancing risks, even at the expense of higher interest costs.

This prompt reaction by markets is proving to be harsh discipline for corporations, and an incentive to enhance the transparency of their financial accounts, strengthen their balance sheets, and refrain from undue risk taking. Many corporations have begun to respond to this signal, demonstrating the strong self-correcting elements inherent in well-functioning financial markets. In addition, regulatory changes are now under way in the United States and Europe to further strengthen the operation and supervision of capital markets (see Box 2.1). These responses are likely to permit investors to evaluate and price risks more accurately in the future.

Increased uncertainties in the outlook for corporate earnings also may have contributed to the weakening of the U.S. dollar in recent weeks. In the context of declines in foreign capital flows into U.S. securities since December 2001, concerns have revived about the potential for and implications of a significant rebalancing of global capital flows. (The potential implications for financial markets will be examined in a forthcoming issue of the *Global Financial Stability Report*.)

Corporate Profitability and the Banking Sector

Corporate financial performance has affected the banking sector, through both the revenue and the cost side. Financial reports so far have suggested that banks, which are not well-diversified but rely primarily on wholesale banking, have performed rather poorly in the first quarter. The position of some weak banks, in Europe and elsewhere, has deteriorated further. The unsustainable situation of such institutions, squeezed by poor revenues, credit provisions, and the slow pace of cost reduction, will likely prompt cross-border consolidation, especially in Europe. Any serious impediments to this necessary adjustment should be of concern to bank supervisors. These developments, as well as the general retrenchment in risk taking, have noticeably reduced net banking flows to emerging market countries.

The weakening financial situation of Japanese banks continues to be a source of vulnerability to international financial markets. Japan's prolonged economic stagnation and deflation have significantly reduced corporate profits and generated successive waves of nonperforming loans (see Chapter II). Caught between diminishing profitable business opportunities and loan-loss provisioning, Japanese banks have posted net losses in most of the past eight years, and will likely continue to do so for the time being.

The weakness of Japanese banks has already curtailed capital exports from Japan to emerging market countries. Further, international spillovers could occur through three possible channels: a disorderly repatriation of Japan's assets held in mature markets; further sharp falls in financing flows to emerging markets; and risks to international financial institutions with exposures to Japan. These effects could lead to volatile adjustments in international financial markets, as well as in countries facing the resulting shifts in capital flows. However, the lack of profitable investment opportunities at home argues against large-scale liquidation of assets held in the United States and Europe. Moreover, many Asian countries are in better economic shape than in 1997-98, enjoying in particular stronger current account positions, higher official reserves, better debt structure, and more flexible exchange rates. Consequently, they are in a better position to cope with the adjustment problems that might arise from financial disruptions in Japan. Finally, many international financial institutions have reduced and tightly managed their Japan market exposures and counterparty risks. Consequently, adverse effects from the international spillovers appear to be manageable.

Financial Market Activities of Insurance Companies

Reflecting pressure on the profitability of their underwriting business, insurance companies have relied increasingly on their investment and other financial market activities to generate sufficient returns (see Chapter III). In the process, insurance companies are becoming more exposed to market and credit risks, notably those transferred from banks through capital market instruments, which have become riskier and more complex. Thus, insurance companies are becoming more vulnerable to financial shocks through their linkages to the major financial markets and institutions, and their own profitability and occasional failures are now a source of potential vulnerability for global financial markets.

Stronger disclosure and regulation of the financial activities of insurance and reinsurance companies is needed. While there are national differences, the regulatory approach to insurance companies tends to focus on solvency relative to insurance claims and not sufficiently on exposure in financial markets. Absent sufficient disclosure, and despite the absence of any market sense of impending crisis, there is a widely felt need for more information on the financial market activities of insurance companies to help market participants better understand the magnitude and profile of risks taken on their books. There is an even stronger case for enhanced disclosure of the financial activities of the reinsurance companies, which in many countries face even lighter regulation—especially in cases where companies operate from offshore financial centers.

Developments in Emerging Markets

Emerging bond and equity markets rallied strongly in the first quarter of 2002, outperforming most asset classes in mature markets (see Chapter II). The spread compression of the EMBI+ to levels not seen since the Russian crisis was supported by inflows into the asset class, including from crossover investors. Bond issuance, particularly in the dollar segment, remained in line with historical levels. However, due to a sharp decline in syndicated bank lending, gross financing flows to emerging markets totaled \$35.3 billion, lower than in the first and fourth quarter of 2001.

The emerging bond markets remain vulnerable to corrections, in part due to the growing involvement of crossover investors, who may withdraw funds rapidly in the event risk appetite declines or other asset classes become relatively more attractive. The main risks going forward stem from domestic political factors which might cast doubt on the direction of economic policy, disappointment with the economic recovery in individual countries, or geopolitical developments.

Local Equity Markets

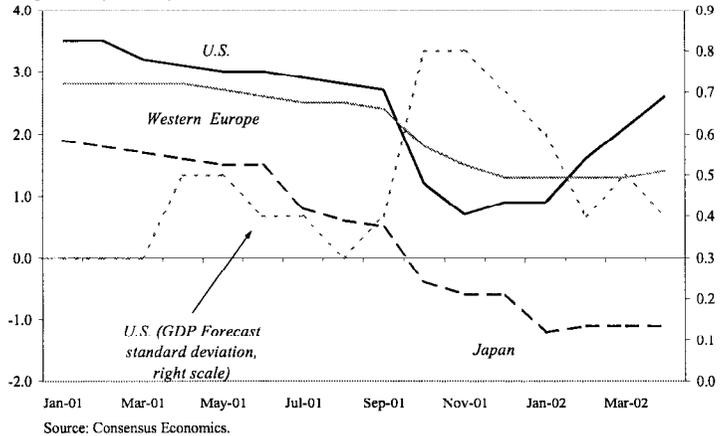
As the first installment of a three-part analysis of local securities markets, Chapter IV looks at the development of the emerging equity markets and their linkages with international capital markets. Future chapters will look at the local fixed income and derivatives markets, and conclude with an analysis of policy implications and recommendations.

While financial systems in emerging market economies have traditionally been dominated by commercial banks, the experience of the late 1990s (especially with the Asian crisis) has suggested that it would be desirable to develop local securities markets to provide alternative and more stable sources of domestic funding. With proper underpinnings, local securities markets could enhance the stability of domestic financing flows and might also have an “insurance value” with regard to reliance on international capital flows.

II. Recent Developments

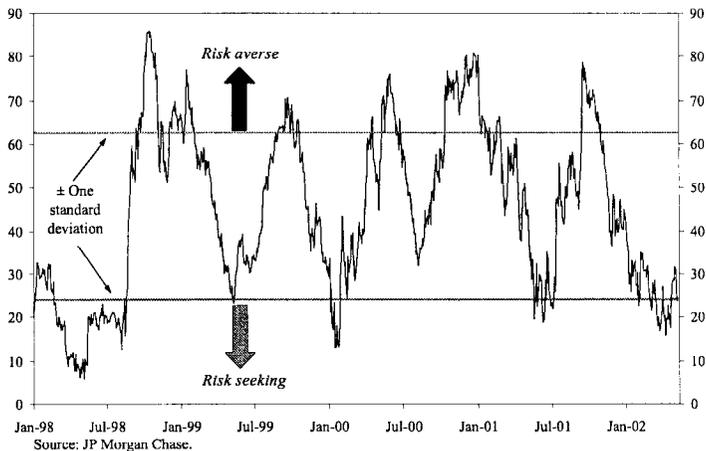
Shifting—but generally positive—prospects for a global economic recovery have brought improved financial market conditions in the first quarter of 2002 (Figure 2.1). However, concerns over the level and quality of reported corporate profits, and high equity valuations continue to weigh on mature stock markets. U.S. and European private debt levels remain high, and the U.S. continues to be reliant on strong capital inflows from abroad. Persistent significant strains in the Japanese financial system raise questions about the scope for international spillovers.

Figure 2.1. Evolution of Consensus 2002 GDP Growth Forecasts
(In percent, year-on-year)



Risk appetite is at its highest level in two years, a factor that, together with expectations for a global economic recovery, have eased flows to emerging markets (Figure 2.2).¹ Emerging market financing, though somewhat lower than in the preceding quarter, was well above that of the third quarter of 2001, allowing many sovereigns to complete substantial portions of their 2002 financing needs. Bond issuance was nearly equal to that in the preceding quarter, with market access supported by new inflows into the asset class, as well as renewed interest by crossover

Figure 2.2. Liquidity and Credit Premia Index



investors, and a benign external environment. The fallout from Argentina appears to have been contained, with most emerging market asset classes unaffected by the ongoing turmoil and the fall in the value of the peso.

¹See the November 14, 2001, issue of *Emerging Market Financing*, for a definition of risk appetite. It is typically measured in an index by computing changes in various market indicators of credit risk and liquidity premiums.

Mature Markets

Equity Markets

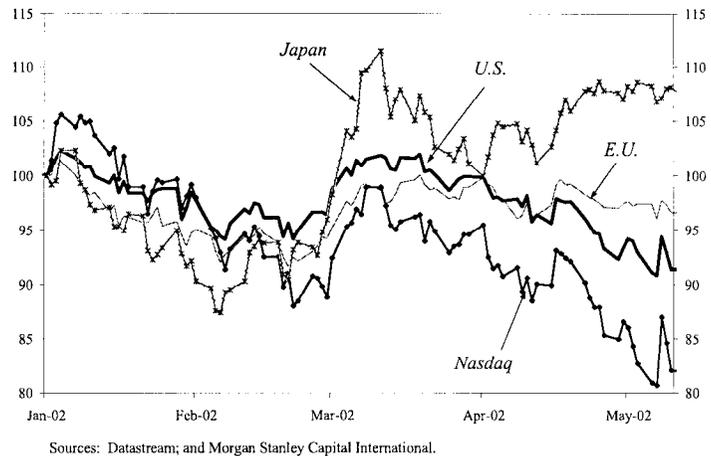
Despite an improved global economic outlook, stock prices were broadly unchanged in Europe and the United States in the first quarter of 2002 (Figure 2.3). Concerns over the quality of reported earnings in the wake of Enron's collapse weighed particularly heavily on the stock prices of highly leveraged firms and those that had been active in mergers and acquisitions (Box 2.1).

Companies whose earnings appear to derive from mergers and acquisitions or questionable accounting practices have been heavily discounted in the market, with the share price of the 20 companies in the S&P 500 most active in mergers and acquisitions underperforming the index by 15 percentage points in the first quarter. Market concerns have also pushed highly leveraged firms to deleverage or extend the maturity of their liabilities in a steep yield curve environment, raising interest expenses to the potential detriment of future profitability. A rebound in earnings is necessary to justify current equity valuation levels, and to encourage corporate capital expenditure, which has so far been a missing element in the economic recovery. Japanese equities rose during the quarter on improved prospects for the export sector and government support measures (including a crackdown on short selling and the purchase of shares by government controlled funds).

Consistent with the anticipation of recovery, consumer cyclicals were the best performing sectors in the United States and Europe, underscoring the relative importance of robust consumption, particularly in the United States, during the ongoing economic recovery, amid continued weakness in investment spending. Technology-Media-Telecom (TMT)

was the worst performing sector in both the United States and the Europe, as high leverage and overcapacity in some segments persisted (see Table 2.1). In contrast, TMT shares significantly outperformed cyclicals in Japan.

Figure 2.3. Mature Equity Market Dollar-Denominated Indices



Sources: Datastream; and Morgan Stanley Capital International.

Table 2.1. Performance of Mature Equity Market Sectors, 2002: Q1
(In percent, dollar indices)

	United States	European Union	Japan
Total index	-0.1	-1.0	1.1
Consumer cyclicals	11.5	8.0	4
Industrial cyclicals	3.2	7.8	4.5
Techno, media & telecom	-8.4	-12.3	8.1
Defensive sectors	2.4	-2.2	-8.5
Banks & financials	3.8	0.7	-5.3

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

Box 2.1. Enron: Lessons Learned, and the Response

The Enron failure highlighted a number of weaknesses in accounting rules and their implementation, corporate governance, and lax market discipline. There has been progress (mostly in the United States) in addressing these issues on numerous fronts. Regarding the appropriate degree of oversight of over-the-counter (OTC) derivatives, a bill proposing greater regulation of energy derivatives was defeated in the U.S. Senate. Concerns have also been raised about the management of corporate-sponsored pension funds.

Issue	Response
Weak accounting rules	
Recognition of revenues	Increased market and regulatory scrutiny of financial reports
Expensing of stock options	Possible changes to accounting rules
Consolidation of special purpose entities	New accounting rules under consideration by FASB, requiring stricter interpretation of "economic independence" to avoid consolidation; outside equity threshold increased to 10 percent
Treatment of pension gains in income	Market scrutiny of accounting and reporting practices
Gaps in the implementation of accounting rules and oversight of accounting profession	
Independence of audits, including conflicts of interest between audit and consulting	Possible separation of auditing from consulting business, mandatory rotation of auditors and prohibition on compensation based on cross-selling services
Weak oversight of standards and audit quality	Legislation passed creating a new independent regulatory body
Complex rules-based accounting standards	Efforts to shift accounting framework toward system based on principles
Inadequate corporate disclosures	SEC proposal for more detailed and timely disclosure
Poor corporate governance	
Lack of outside checks on management	SEC proposal to clarify responsibilities of corporate officers and outside directors; "shareholders' Bill of Rights" under consideration in the U.S. Senate Proposed reforms of audit and compensation committees Stock exchanges consider more stringent governance requirements in listing standards
Biased recommendations of stock analysts	New York state and SEC investigation of brokerage practices and conflicts of interest between analysts and investment bankers

Various international fora are also studying the issues raised by the Enron failure:

The March 2002 Financial Stability Forum meeting in Hong Kong discussed weaknesses in accounting and corporate governance. **The International Organisation of Securities Commissions (IOSCO) has created a high-level subcommittee** to assess accounting standards, disclosure and transparency practices, the role of ratings agencies, and the treatment of off-balance-sheet transactions. **The Basel Committee on Banking Supervision** is addressing banks' use of special purpose vehicles. **The OECD** plans to discuss corporate governance.

Consensus earnings forecasts were upgraded during the quarter to reflect improved expectations of global recovery. The ratio of up/down earnings revisions increased in most mature markets, and, in some cases, crossed the threshold level of 1 around February–March.² In Japan and the United Kingdom, however, despite some improvement in the ratio, downgrades continued to exceed upgrades. As of April 1, the consensus forecast for S&P 500 earnings growth in 2002 was 15.9 percent year-over-year, with first quarter earnings expected to decline by 11.4 percent, and earnings for quarters two, three, and four expected to grow by 8.3 percent, 29.1 percent, and 42.5 percent, respectively.³ Notwithstanding improved economic prospects, global equities appear to be overvalued, however, and the risk of a price correction due to earnings disappointments remains (Box 2.2).

Uncertain prospects for corporate profits also raised questions about U.S. banking sector profitability. The decline in mergers and acquisition activity is reducing fee income. At the same time, banks face higher costs from bad loans. Moreover, the virtual drying up of the U.S. commercial paper market (see below), has increased calls on bank credit lines at an inopportune time. These concerns have so far been overridden by expectations for an economic recovery, and U.S. and European bank stocks rose in the first quarter. Japanese bank stock prices, however, have underperformed the broader index and are now around 40 percent below their end-1998 level, reflecting continued concerns about their financial condition. Both European and Japanese insurance companies have experienced large insured losses and market returns that are below guaranteed rates on policies (see Chapter III).

Primary market activity in the United States picked up sharply in March to \$9.3 billion, above the 10-year average, although the quarter's total of \$12 billion was \$1 billion below the preceding quarter. Most U.S. initial public offerings (IPOs) have performed well in the aftermarket, mirroring the performance of the broader indices. Including long-dated convertibles, total first quarter equity and equity-like issuance in the United States amounted to \$34 billion. The desire to replace debt with equity motivated many IPOs, with spin-off IPOs (\$7.4 billion in the first quarter) a popular way for U.S. companies to repair balance sheets and reduce leverage. The total volume of global equity issuance was only marginally higher than in the previous quarter, at just over \$20 billion. The volume of IPOs in Europe, however, fell 45 percent to \$5.4 billion, led by the French government's €2.5 billion sale of ASF of France and Nestle's \$2.3 billion sale of Alcon. Uncertainty over future earnings appear to have deterred many investors from the European IPO market.

² The ratio of up/down revisions is the number of index constituents for which the 2002 earnings forecasts have been revised up divided by the number of index constituents for which the 2002 earnings forecasts have been revised down.

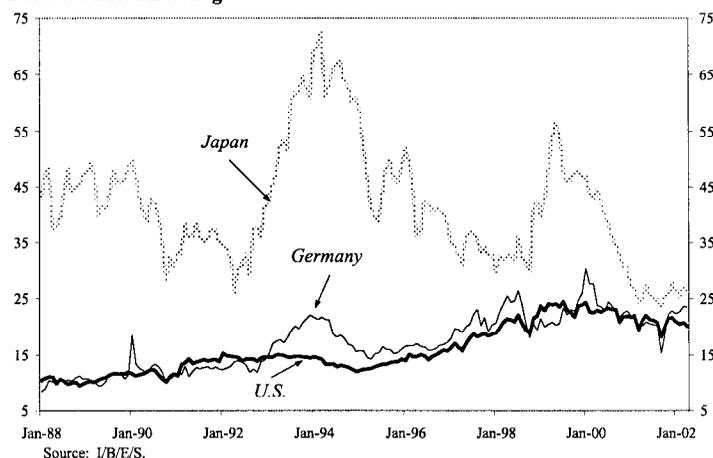
³ These forecasts do not fully reflect recent accounting changes in the United States (i.e., FASB 142) require changes in goodwill to be written off rather than amortized.

Box 2.2. Mature Equity Market Valuations

In spite of the correction in equity markets since early 2000, most traditional measures suggest major market equity valuations are high relative to historical averages. U.S. and German equity valuations appear to be at or above their “fair values” while in Japan, it is less clear to what extent recent history is a useful guide for judging the validity of forward-looking valuation measures.¹

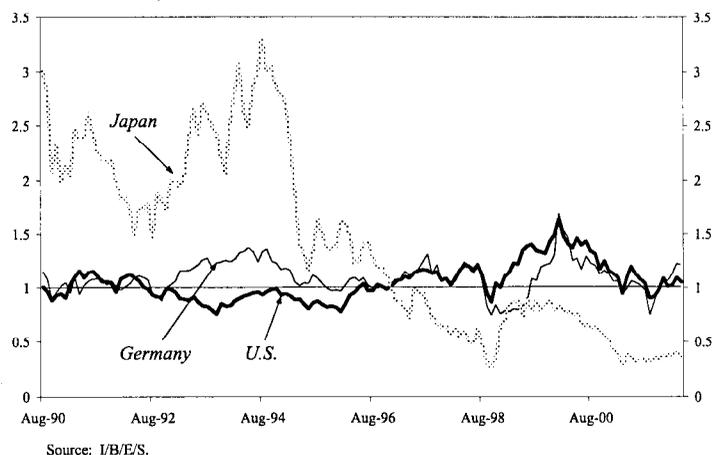
The 12-month forward *price/earnings (P/E) ratio* rose above its five-year average in most mature equity markets in the post-September 11 rally.² U.S. and German stocks are currently fairly to richly priced relative to their five-year average P/E of 21.3 and 22.2 respectively, assuming that the 15–20 percent average earnings growth rates observed during the past five years can be sustained going forward. Japanese forward P/E ratios remained below their five-year average of 35.5. Markets are even more richly valued relative to their longer term (1988–2002) average P/Es in the United States (16.1) and Germany (17.3), unlike in Japan (41.6) (see the first Figure).

Forward Price/Earnings Ratios



Bond-to-earnings (BY/EY) yield ratios, which compare the 12-month forward earnings yield with the 10-year government bond yield, have also risen over the past few months. In the U.S. and German markets, stocks were trading about 10–20 percent above their “fair value” (the “fair value” is computed as the reciprocal of the bond yield)(see the second Figure).

Bond-to-Earnings Yield Ratios

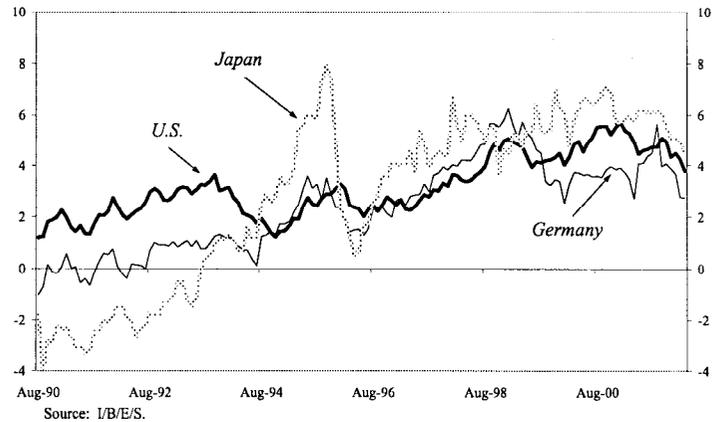


¹ Germany is used as a proxy for Europe in this box because pan-European data are not available.

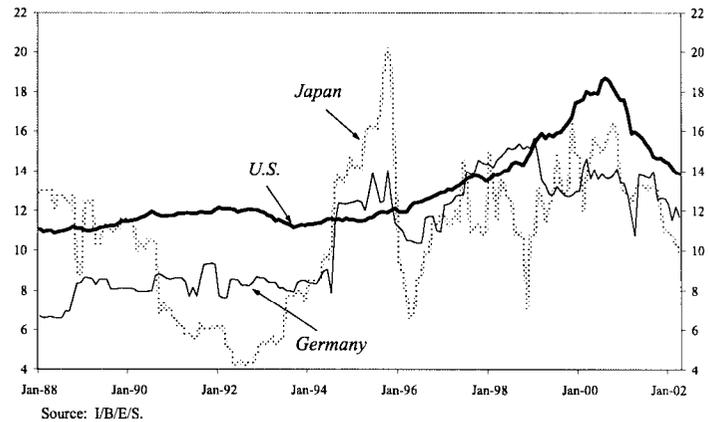
² The forward-looking equity risk premium (EQRP) is calculated using the Gordon valuation model, (i.e., $EQRP = D/P + G - R$, where D = expected dividend in the current year (the indicated annual dividend (IAD)); P = current price; G = forecasted growth rate in dividends, which is the long-run market consensus earnings growth rate multiplied by the retention rate (or 1-payout ratio); R = a generic 10-year local government bond yield. Other methods for calculating EQRP produce equity risk premiums ranging from 2 percent to 9 percent for the United States.

Implied equity risk premiums, a measure of the expected excess return on equity investments above risk-free returns, are calculated using the long-term consensus earnings growth forecasts, forward dividend yields, and long bond yields. According to this measure, the U.S. equity risk premium is currently 3.8 percent (compared to the 10-year average of 3.4 percent), the German risk premium is 2.7 percent (versus a 2.8 percent average), while the risk premium on Japanese equities is 4.6 percent (versus a 3.6 percent average), suggesting that equities are relatively cheap compared to government bonds. However, it should be noted that consensus long-term earnings forecasts (particularly in the United States) remain well above their historical levels (see the final three Figures). For example, the U.S. equity risk premium calculated on the assumption that the long-run earnings growth rate is equal to the pre-tech bubble average turns out to be much lower, i.e., only about 2.8 percent. In addition, if one looks at the average BBB corporate credit spread in the United States, which was at 209 basis points at the end of March, and add the historical average difference between the equity premium and the credit spread, it would put the minimum excess return on equity required to compensate investors for the risk of corporate default at around 3.4 percent.

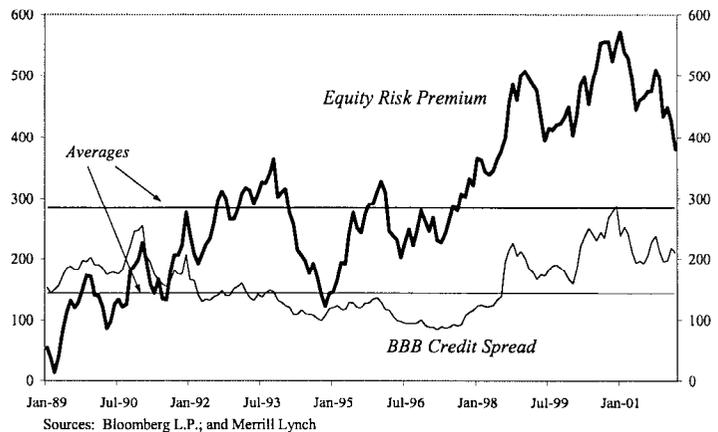
Implied Equity Risk Premiums
(In percent)



Consensus EPS Growth Rates Over the Next 5-Year Cycle
(In percent)



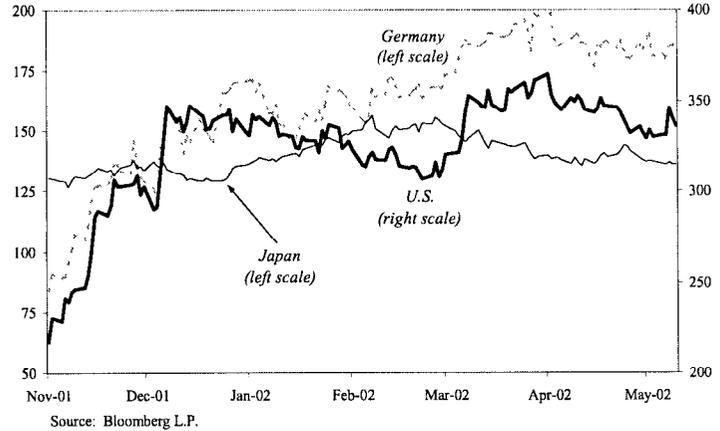
U.S. Equity Risk Premium versus the BBB Credit Spread
(In bps)



Government Bond Markets

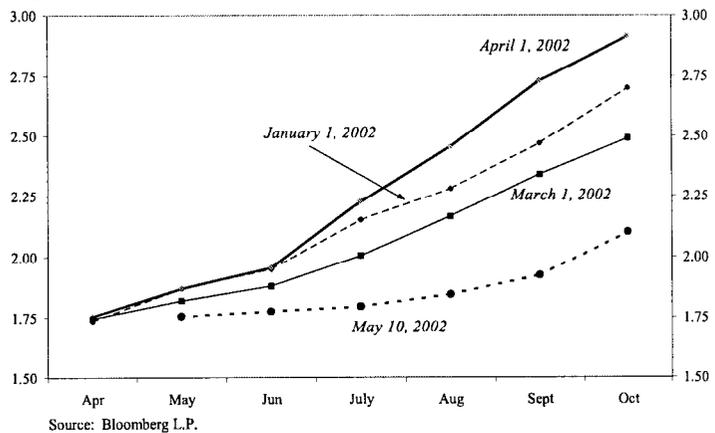
With mixed economic signals in the first two months of 2002, and the flight to quality from the Enron-related sell-off in corporate bonds, the U.S. yield curve paused for two months before resuming its steepening trend in March (Figure 2.4). In Japan, fears of Japanese government bond (JGB) sales by banks to cover equity related losses ahead of the fiscal year-end contributed to rising JGB yields in January and early February. However, following the rally in the equity markets during mid-February–March, financial institutions regained their appetite for JGB purchases, contributing to a mild flattening in the curve.

Figure 2.4. International Yield Curve Differentials
(In basis points, 10-year minus 3-month Treasuries)



U.S. futures markets appear to be pricing in a rate hike in August (Figure 2.5). Prices on eurodollar futures are consistent with market expectations of a cumulative increase in the Fed Funds rate of 100-125 basis points this year, although these numbers tend to be higher than consensus forecasts based on market surveys and actual outturns (Box 2.3). In the United States, survey-based forecasts see rates rising in the third quarter at the earliest (Figure 2.5). Similarly in Europe, market participants do not expect a European Central Bank rate hike before the third or fourth quarter, but futures markets are discounting a hike of 25 basis points in the second quarter and another 50 basis points by year-end. Canada was the first G-7 economy to raise its official rate by 25 basis points on April 16.

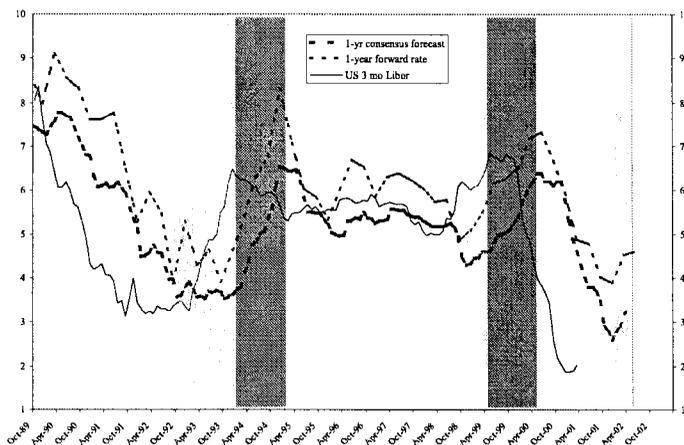
Figure 2.5. Expected Policy Rates: Federal Funds Futures, 2002
(In percent)



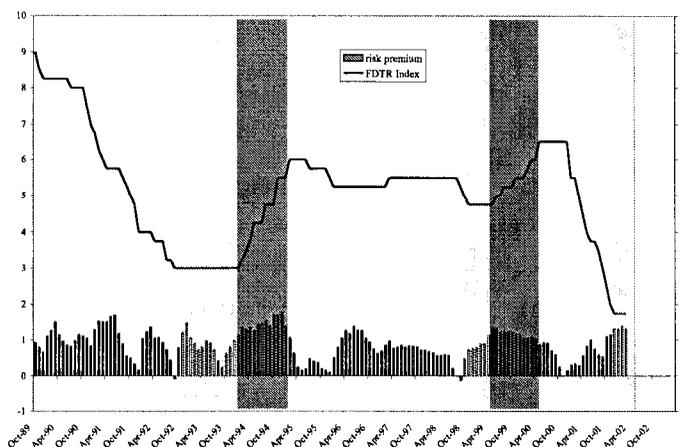
Box 2.3. Are Forward Short Rates Useful Indicators of Market Expectations?

Federal funds futures (and forward) markets are biased and unreliable indicators of market expectations for future short-term policy interest rates (IMF, 2002). Average expectations of short-term interest rates are typically lower than those futures contracts price in, and the difference between the two can be seen as the “risk premium” built into the price of the contract, reflecting the risk that rates may, for example, have to be higher than the average expectation, if growth surprises on the upside.

One widely used gauge of the risk premium is the difference between consensus forecasts of short rates one year ahead, and the current short-term interest rate forward (or future) (see, for example, Goldman Sachs & Co., 2002). As the top panel of the figure shows, the one-year forward, three-month U.S. Treasury bill rate for the 1990–2002 period is consistently higher than the consensus forecast, indicating a positive time varying risk premium. The risk premium tends to persist much more during tightening cycles (shown with the dark shading in Figures) suggesting markets are more comfortable about deciding when an easing cycle has ended rather than a tightening one. Also, during the last two tightening cycles, the risk premium entered the tightening cycle at relatively high levels and did not fully unwind until *after* the U.S. Federal Reserve had stopped hiking rates, again indicating markets are conservative and generally reluctant to take a bullish stance on forwards, even if they have a well formed view on how high interest rates may go. Interestingly, when the eventual tightening has been very sharp, both forwards and consensus expectations have underestimated actual interest rates in the early part of the tightening cycle, before reverting to the long term norm of overestimating them.



Sources: Bloomberg L.P.; Consensus Economics; and IMF staff estimates.
Note: U.S. 3 month Libor rates one year ahead.

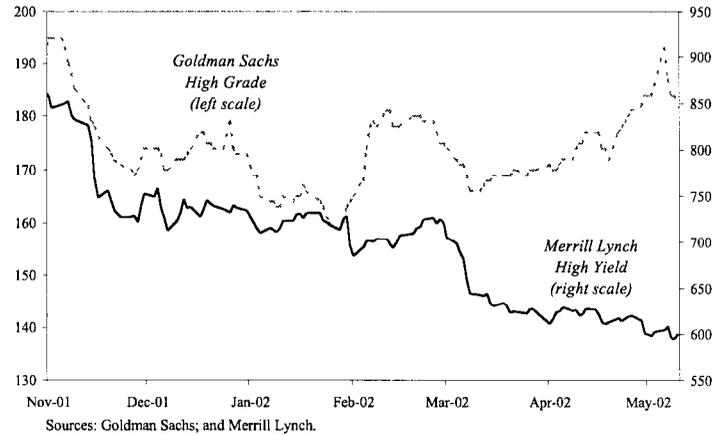


Sources: Bloomberg L.P.; Consensus Economics; and IMF staff estimates.

Corporate Debt Markets

Concerns over the quality of earnings triggered by the Enron scandal and uncertain prospects for corporate profitability contributed to an aversion for corporate credit risk in the U.S., especially among lower rated issuers, leading to increased recourse to bank lines (see Figure 2.6). In the commercial paper market, those financial sector issuers that had taken advantage of low borrowing rates in the fall of 2001 faced greater scrutiny of their increased exposures to a rise in short-term rates and the adequacy of their backup lines, with both investors and rating agencies increasingly pressuring them to reduce their exposures (see Box 2.4). Credit concerns led to a distinct tiering in the market, with average spreads between A2P2 and A1P1 rated issuers remaining at more than double the usual 20 basis points throughout much of the quarter, while narrowing somewhat in April.

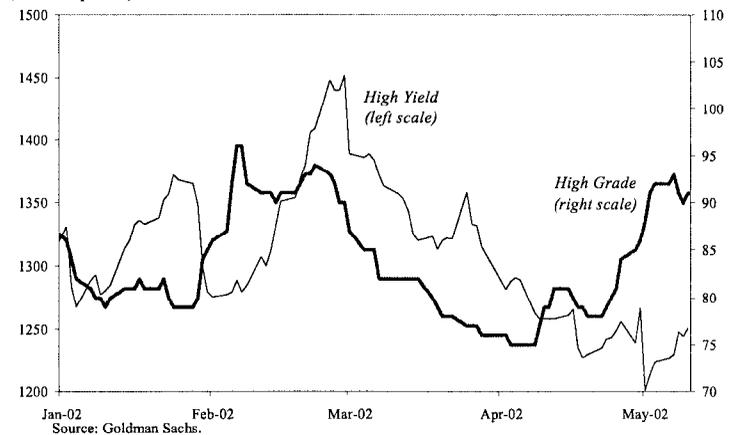
Figure 2.6. Credit Market Spreads
(In basis points)



Nonfinancial corporations and lower rated entities experienced difficulty accessing bond markets, while financing for U.S. consumer spending and mortgages was less affected. By early March, with the rebound in equity prices and an abatement of corporate credit concerns, risk aversion dropped, and both high-yield and high-grade markets rallied sharply, with subinvestment grade credits strongly outperforming their high-grade counterparts, underpinned by a strong \$3 billion inflow to high-yield mutual funds in March. The telecom sector, with its high refinancing needs, remained hard hit. Of total high-yield issues in the first quarter, telecoms accounted for just 6 percent, compared with 12 percent in 2001, and 40 percent in 2000.

Movements in European spread markets broadly followed the patterns in the United States. Investment grade spreads compressed to their tightest levels in a year, while high-yield spreads managed to regain the ground lost in the January–February sell-off (Figure 2.7). European spreads experienced a mild form of “contagion” from accounting-related concerns in U.S. markets, but then also benefited from the March rally. Primary high-yield markets in Europe were anemic in first quarter, with just

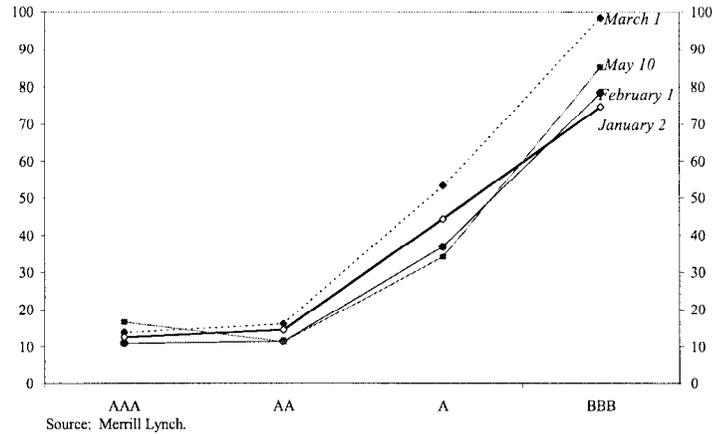
Figure 2.7. European Credit Market Spreads
(In basis points)



over €800 million in issuance, compared with some €2.4 billion in the first quarter of 2001.

Japanese credit markets were volatile over the first quarter. While credit spreads narrowed in the single A sector, risk aversion still plagued the BBB sector due to the Mycal default (Figure 2.8). In March, as equity markets rallied, the risk appetite for corporate debt increased. Seasonal increases in purchases of corporate bonds with the beginning of the new fiscal year in April also were increasingly being priced into bonds, with buying activity concentrated in the highest rated banks, and bonds with partial or complete government guarantees.

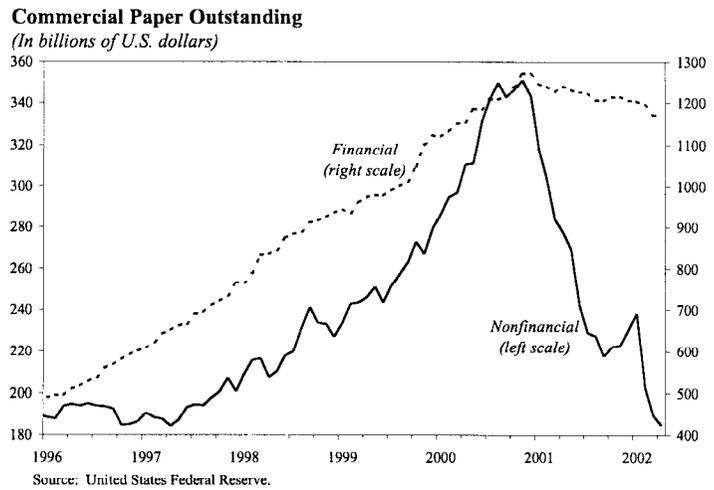
Figure 2.8. Japan Credit Curves
(In basis points)



Source: Merrill Lynch.

Box 2.4. The Shrinking U.S. Commercial Paper Market

The U.S. market for commercial paper has shrunk dramatically over the past year (see Figure). The bankruptcies of California utilities in January, as well as a more general deterioration of credit quality, sparked a precipitous decline in the outstanding stock of nonfinancial commercial paper during the first quarter of 2001. Many issuers whose ratings were downgraded drew on bank lines to repay paper, which prompted concerns over liquidity in the banking sector. Losses on commercial paper also raised fears that money-market funds, which seek to offer investors stable share prices, might be forced to “break the buck” if asset values fell below \$1 per share. The decline continued through the third quarter of last year, albeit at a somewhat slower pace, as the relatively flat yield curve encouraged firms to switch to longer term funding in the bond market. Slower economic growth and a record liquidation of inventories in the fourth quarter also played a role by reducing funding needs. Within the nonfinancial sector, Tier 1 commercial paper declined more than 50 percent to \$87 billion at the end of the first quarter of 2002, while (lower grade) Tier 2 commercial paper outstanding has declined by a somewhat lesser amount, mainly because paper downgraded from Tier 1 has offset some of the decline from lower-rated firms exiting the commercial paper market.



The driving force in the decline of the commercial paper market in 2001 was credit concerns, although the broader macroeconomic environment also contributed to the reduced demand for commercial paper based financing. Downgrades outnumbered upgrades by nearly a 7-to-1 margin in 2001. Many borrowers exited the market as the price for borrowing rose and the investor base dwindled, with many funds restricted from holding lower grade paper. While non-financial corporations typically have raised funds in the commercial paper market to finance inventories (as well as mergers and acquisitions, and working capital), the economic downturn in 2001 has clearly implied a much reduced inventory-driven demand which eased funding needs.

Many companies have turned to the corporate bond market, asset-backed commercial paper conduits, and bank loans as alternative sources of funding. Investment grade bond issuance rose in the first quarter of 2001 as firms took advantage of the flat yield curve to lock in lower rates for longer-term financing. Asset-backed commercial paper has proved another popular alternative, as securitized financing is often cheaper than unsecured debt in times of market stress. The asset-backed commercial paper market grew to more than half of the overall commercial paper market, from less than 10 percent a decade ago. Outstandings have fallen sharply this year, however, as the Enron failure has heightened scrutiny of off-balance-sheet financings. Borrowers have also accessed bank lines, which has aroused market attention since the Enron debacle and a rush of drawdowns. During a recent three-week period, Computer Associates, Qwest, and Tyco contributed to a \$20 billion drawdown of commercial paper backstop loans. These and other drawdowns and scrutiny by rating agencies have focused attention on the pricing of backup lines of credit, as well as exposure to repricing and rollover risk.

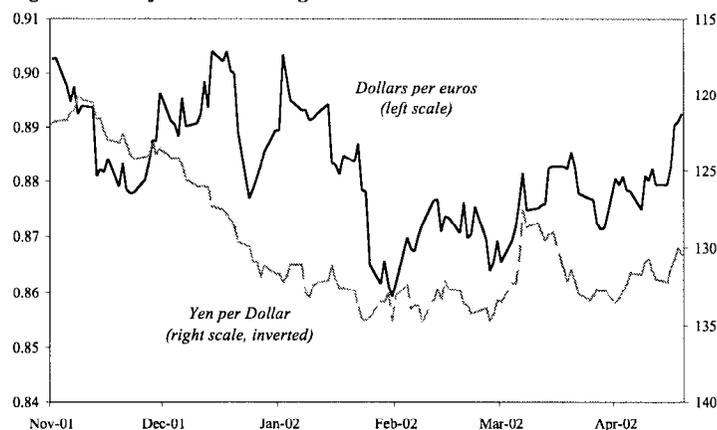
Syndicated Lending

Refinancings continued to dominate activity in the U.S. and European syndicated loan markets in the first quarter, particularly in the investment grade sector, given the dearth of mergers and acquisitions and ongoing difficulties in the telecom sector. In addition, amid increased focus on credit risk in the aftermath of Enron's collapse and in an effort to dampen investor concern, a number of corporates drew on their backstop loans, as they were unable to issue in the commercial paper market, saddling banks with weak credits at an inappropriate time, with their having to honor funding commitments at wafer-thin "relationship" margins. These drawdowns appear to have been an important catalyst for change in the structure and pricing of these facilities, with banks reportedly increasingly hedging their exposures in the derivatives markets and the premiums on credit default swaps rising sharply. Meanwhile, Japanese banks continued to retreat from international loan markets, as they contend with ongoing difficulties in the Japanese economy and rising loan loss provisions. There also appears to have been a retrenchment in lending to emerging markets, particularly Latin America, by European banks.

Foreign Exchange Markets

While strong capital inflows into the U.S. helped the U.S. dollar strengthen by about 1.6 percent on a trade-weighted basis in the first quarter, sentiment towards the dollar was mixed as the currency remained close to record-high levels (Figure 2.9). The dollar weakened 3 percent in April, and market participants suggested that a decline in portfolio and other flows into the United States may have contributed to the weakness. The surprising performance of the yen during the quarter played a part in limiting the dollar's gains. Markets had been near-unanimous at the start of the year that the yen would weaken significantly, especially as the authorities in the Euro area, Japan, and the United States seemed ready to permit this. However, after an initial period of mild weakening, the yen snapped back, at one point strengthening more than 5 percent over seven sessions. At the end of the quarter, expectations of a recovery in Europe seemed to have risen, as speculative long euro positions, proxied by noncommercial positions on the International Monetary Market, moved up sharply.

Figure 2.9. Major Currencies against the U.S. Dollar



Source: Bloomberg L.P.

Mature Market Vulnerabilities—The Weakness in Japan’s Banking Sector

Global concerns over financial stability in Japan have intensified in recent years, prompted by the deterioration of corporate and financial sector balance sheets amid low economic growth and deflation. Although the Japanese stock market recovery has had a stabilizing influence, significant strains in the Japan financial system remain, raising questions about the scope for international financial-market spillovers should the situation again deteriorate.⁴ These spillovers could occur through three channels: (1) a disorderly repatriation of Japanese assets held in mature markets; (2) strains on emerging market economies through a further decline in Japanese financing flows or yen depreciation; and (3) exposures of international investors and financial institutions to Japan.

Disorderly repatriation of Japanese assets. As of December 2000, Japan’s international investment position showed a surplus of about \$1.2 trillion at the time, of which one-third was accounted for by Japan’s foreign exchange reserves. Although Japanese investors—particularly large life insurers—reportedly hold a share of up to one-fifth of actively traded U.S. Treasury securities, the overall amount of Japanese holdings in the wider U.S. bond market only accounts for about 2 percent. Shares in the European bond markets as well as the Asian and Latin American emerging markets are of a similar dimension, and holdings of foreign equity are much smaller still. Moreover, large-scale capital repatriation appears unlikely in current circumstances. By offering attractive risk-adjusted returns, notwithstanding relatively high costs of currency hedging, foreign investments provide an important source of income for Japanese financial institutions. Consequently, a decision to repatriate large amounts of capital would likely be made only to rebalance portfolio risks following significant losses on other domestic or foreign assets, or in the unlikely situation of extreme liquidity shortages. As for Japanese banks, many institutions have already withdrawn from international business, but the remaining banks still account for a considerable share of international bank lending. According to BIS statistics, Japanese banks’ consolidated foreign exposure amounts to \$1.2 trillion, the second largest global exposure behind German banks. While some of this exposure reflects the stock of loans committed earlier, Japanese banks have again become increasingly active in foreign markets in recent

⁴ Japan has agreed to participate in the Financial Sector Assessment Program (FSAP). In addition to the aspects covered here, the review of the soundness and stability of the financial system under the FSAP typically includes assessments of compliance with a variety of financial sector standards and codes, institutional and legal arrangements for crisis management and financial safety nets, risk management systems in financial institutions, detailed analyses of financial soundness indicators, stress tests and scenario analyses, assessments of the structure and health of the nonbank financial sector and the corporate sector in light of their relevance for the soundness and stability of the financial system, and transparency and anti-money laundering issues. Work on the Japan FSAP will start this year and will feed into the 2003 Article IV consultation cycle.

years, particularly in the syndicated loan market. However, their further withdrawal would no longer have as significant an impact on industrialized economies as it may have had in the early 1990s.

Impact on emerging markets. Compared to mature markets, emerging market economies may be more vulnerable to further cutbacks in bank lending, given that Japanese loans still account for a major share. Although a substantial part of these loans is linked to FDI-related projects, and could thus be replaced more easily, further withdrawals could still complicate efforts to build up long-term growth prospects in the region. Concerns for emerging markets also continue to emanate from possible exchange rate fluctuations, particularly if a depreciating yen were to put pressure on regional exchange rates and pose difficulties for countries with fixed exchange rate regimes. On the whole, however, economic fundamentals of many Asian countries have improved since the 1997-98 crisis, including stronger current account positions, higher official reserves, better external debt structures, and more flexible exchange rate systems. Consequently, countries in the region would be in a better position to cope with adjustment problems arising from financial disruptions in Japan.

Exposures to Japan market and counterparty risk. Although some foreign investors and financial institutions may still face substantial losses in the event of Japanese market turmoil, overall Japan exposures have been sharply reduced in recent years, contributing to the increasing insulation of the Japanese financial system:

- Investment portfolios are largely underweight Japan. While still mostly positive, capital inflows into Japan in recent years appear small when assessed against the background of considerably stronger growth in U.S. and European financial markets. For example, the share of Japanese equity markets in global market capitalization (measured in U.S. dollars) fell from around 30 percent in 1990 to below 10 percent in 2001, which is also likely the upper limit allocated to Japanese equity in most foreign investor portfolios. Risks may be somewhat higher in Japan's bond market, which almost tripled in size over the past 12 years. The share of foreign holdings has remained constant around 5 percent, translating into an exposure of around \$200 billion—a significant but small amount compared to a \$24 trillion bond market outside of Japan. Foreign ownership of corporate securities is also minimal, owing to low risk-adjusted returns that reflect the supply-demand imbalance in that market.
- Foreign banks also appear relatively well protected against failures among their Japanese counterparts. The supply of capital to Japanese banks has been cut back, and Japanese bank credit risk is largely limited to short-term collateralized lending (mostly repos) or short-dated swaps. Moreover, since Japanese financial institutions have not been very active in markets for complex financial instruments, market participants are not particularly concerned about exposures, for example, in the credit derivative markets. According to their estimates, nominal amounts outstanding in Japan account only for about \$100 billion, or 10 percent of the global credit derivatives market. On the other hand, banks' declining dollar-denominated exposure to Japanese borrowers appears to have been partly offset by an increase in yen-denominated lending. According to BIS *locational* statistics, banks' international claims against Japanese borrowers fell by about \$100 billion between late 1999

and the end of September 2001 (to \$513 billion), 90 percent of which was accounted for by a decline in lending to the nonbank sector. However, *consolidated* banking statistics, which include local exposure of subsidiaries in Japan, show an increase in claims on Japan by \$150 billion over the past two years. This appears consistent with the increased presence of many foreign institutions in the Japanese market—including through acquisitions of local institutions. Although the quality of locally held assets could clearly be affected during a crisis, the bulk of this exposure is vis-à-vis foreign exporters and high-quality Japanese borrowers, and thus appears relatively secure.

Taking these three channels together, any potential Japan fallout on the regional and global financial system seems manageable—mostly as a result of the increasing insulation of Japan's financial system. However, despite the relatively benign aggregate situation, predictions about the knock-on effects of a Japan crisis on large foreign investors or financial institutions are hard to make. Owing to the complex web of financial interactions between Japanese and other globally operating financial institutions, as well as between Japanese corporations and their international counterparts, some parties could experience considerable losses in case of Japanese market turmoil. Although such disturbances would probably fail to pose a systemic threat, they could still be large enough to cause strains for the international financial system, and the costs from Japan-related uncertainty and volatility could also be quite high, both in the mature and emerging financial markets. Particularly emerging economies in Asia still depend to a significant, albeit reduced, degree on Japanese financial inflows.

Emerging Market Developments and Financing

Table 2.2. Emerging Market Financing Overview

					2000				2001				2002				
	1998	1999	2000	2001	1st qtr.	2nd qtr.	3rd qtr.	4th qtr.	1st qtr.	2nd qtr.	3rd qtr.	4th qtr.	1st qtr.	Jan	Feb	Mar	YTD 1/
<i>(in billions of U.S. dollars)</i>																	
ISSUANCE	149.0	163.6	216.4	162.5	60.4	55.4	50.3	50.3	42.2	50.5	29.4	40.3	35.3	12.0	7.2	16.0	38.4
Bonds	79.5	82.4	80.5	89.0	33.8	16.1	21.1	9.4	26.8	28.8	11.7	21.7	22.0	8.3	5.1	8.5	24.5
Equities	9.4	23.2	41.8	11.2	8.9	11.6	8.8	12.4	2.3	5.3	1.0	2.6	4.1	1.7	0.9	1.5	4.1
Loans	60.0	58.1	94.2	62.2	17.6	27.7	20.4	28.5	13.1	16.4	16.7	16.0	9.2	2.0	1.2	6.1	9.8
ISSUANCE BY REGION	149.0	163.6	216.4	162.5	60.4	55.4	50.3	50.3	42.2	50.5	29.4	40.3	35.3	12.0	7.2	16.0	38.4
Asia	34.2	56.0	85.9	67.4	19.5	26.1	18.3	22.0	19.6	22.8	7.5	17.6	13.1	5.2	1.9	5.9	14.1
Western Hemisphere	65.7	61.4	69.1	54.0	23.7	13.9	18.8	12.7	15.2	15.4	11.4	12.1	11.4	4.3	2.4	4.7	13.0
Europe, Middle East, Africa	49.0	46.3	61.4	41.0	17.1	15.4	13.2	15.6	7.4	12.4	10.6	10.7	10.8	2.5	2.9	5.4	11.3
SECONDARY MARKETS																	
Bonds:																	
EMBI+ (spread in bps) 2/	1,037	703	756	731	674	712	677	756	784	766	1,005	731	598	713	644	598	648
Merrill Lynch High Yield (spread in bps)	555	453	871	734	584	615	664	871	757	736	915	734	623	697	722	623	601
Salomon Broad Inv Grade (spread in bps)	58	55	89	78	81	87	83	95	89	80	77	78	69	74	74	69	73
US 10 yr. Treasury Yield (yield in %)	4.65	6.45	5.12	5.07	6.03	6.03	5.80	5.12	4.93	4.93	4.60	5.07	5.42	5.04	4.91	5.42	5.15
Equity:																	
<i>(in percent)</i>																	
DOW	16.1	25.2	-6.2	-7.1	-5.0	-4.3	1.9	1.3	-8.4	6.3	-17.5	15.7	3.8	-1.0	1.9	2.9	-0.8
NASDAQ	39.6	85.6	-39.3	-21.1	12.4	-13.3	-7.4	-32.7	-23.5	17.4	-30.5	29.9	-5.4	-0.8	-10.5	6.6	-17.9
MSCI Emerging Market Free	-27.5	63.7	-31.8	-4.9	2.0	-10.8	-13.4	-13.5	-6.2	3.1	-23.4	28.4	10.7	3.3	1.5	5.6	10.0
Asia	-12.4	67.6	-42.5	4.2	4.0	-14.0	-22.3	-17.3	-0.1	-1.6	-22.1	36.1	14.9	4.6	2.8	6.9	13.4
Latin America	-38.0	55.5	-18.4	-4.3	3.2	-8.1	-6.0	-8.5	-3.5	7.1	-24.7	23.0	7.1	-0.4	3.4	4.0	-0.5
Europe/Middle East	-27.4	76.7	-23.4	-17.7	3.0	-9.7	-3.9	-14.3	-22.0	4.5	-26.1	36.8	0.2	4.0	-10.3	7.3	-0.7

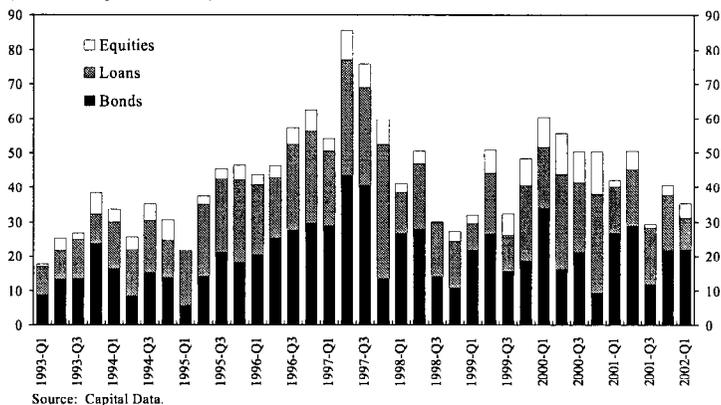
Sources: Bloomberg; Capital Data Ltd.; Merrill Lynch; Salomon Smith Barney; and IMF staff estimates.

1/ Issuance data are as of April 16, 2002 close-of-business London and Secondary markets data are as of May 10, 2002 cob 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.

Gross capital market financing flows to emerging markets in the first quarter of 2002 amounted to \$35.3 billion, some \$5 billion lower than in the fourth quarter of 2001 (see Table 2.2). Bond issuance was in line with the previous quarter, consistent with improving risk appetite in financial markets. However, sovereign issuance as a share of total bonds placed jumped to 64 percent, from 36 percent. Equity issuance also rose, although it remained well below levels seen in 2000 (see Figure 2.10). As in mature markets, the aversion of banks toward credit risk was reflected in a sharp decline in syndicated lending, as banks cut back exposure to emerging markets.

Figure 2.10. Emerging Markets Financing
(In billions of U.S. dollars)



Bond Markets

Emerging bond markets rallied in the first quarter, outperforming most asset classes (see Table 2.3). The ongoing spread compression (see Figure 2.11) with inflows into the asset class, while issuance in the dollar segment remained in line with historical levels. After having postponed inflows in anticipation of the Argentine crisis, the lack of contagion supported new emerging market allocations in early 2002.

Table 2.3. Index Performance
(In percent)

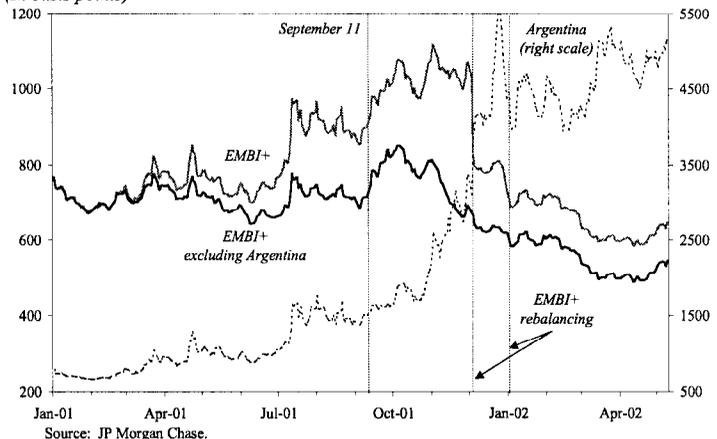
	1999	2000	2001	1Q 2002	YTD 2002*
EMBI+	26.0	15.7	-0.8	6.6	9.0
EMBI+ adj. Argentina	31.2	18.3	19.8	6.8	9.1
Dow	25.2	-6.2	-7.1	3.8	2.4
Nasdaq	85.6	-39.3	-21.1	-5.4	-7.9
EM Free	63.7	-31.8	-4.9	10.7	14.5
Salomon BIG	-0.8	11.6	8.5	0.1	1.5
ML High Yield	1.6	-3.8	6.2	2.0	3.2

Sources: Bloomberg L.P.; JP Morgan Chase; Merrill Lynch; and Salomon Smith Barney.

* April 19, 2002.

Inflows originated from a number of sources. The ongoing consolidation among large buy-side firms increased the pool of capital benchmarked to a “core plus” benchmark.⁵ Russian local demand grew, as did demand from German pension funds, and from European retail demand channeled through new mutual funds with an emerging market focus.⁶ In the United States, three years of good emerging bond market performance encouraged increased exposure of crossover investors to BB or higher-rated emerging market issuers. Consequently, many investment banks’ overweight recommendations were based on increased crossover inflows, rather than any substantial perceived improvement in the fundamental outlook. In this context, dedicated investors largely maintained pre-existing overweights in Brazil, Mexico, and Russia, and some higher-yielding Andean countries.

Figure 2.11. Emerging Market Spreads
(In basis points)



⁵ The traditional “core” Lehman Aggregate index does not include noninvestment grade emerging market issuers and U.S. high-yield corporates. A “core plus” benchmark includes some or all noninvestment grade dollar-denominated bonds.

⁶ New dedicated emerging market mandates are largely benchmarked against the EMBI Global Constrained, as the EMBI Global and the EMBI+ are still seen as too concentrated in a handful of credits (most notably Brazil, Mexico, and Russia). European institutional investor demand is also mostly targeted at the dollar segment due to illiquidity in the euro-denominated market. However, the currency risk to which European investors become exposed as a result continues to limit allocations to emerging bond markets.

Rising inflows from crossover investors helped boost Latin sovereign credit returns, with the exception of Argentina, where investors continued to view short-term prospects as bleak and beset with uncertainty (see Table 2.4). Despite domestic political concerns, Brazil's performance was supported by positive economic releases and expectations of a U.S. recovery. Brazilian spreads, however, widened 164 bps from end-Q1 through May 2 largely on political concerns and market sensitivity towards the inflation outlook. Ecuador was the best performer in the emerging market universe. In Venezuela, a recovery in the price of oil and the adoption of a flexible exchange rate regime led to a sharp tightening in spreads, but this has been partly unwound amid recent political turmoil. Russia was the second best performer in the quarter and exhibited notably low volatility, continuing to benefit from its solid macroeconomic outlook, based in part on oil exports, while Ukraine's strong rally was justified as a "Russia play." Sentiment towards Mexico continued to improve during the quarter, with upgrades by both Standard & Poor's and Fitch to investment, and a further upgrade by Moody's.

Table 2.4. Performance of Emerging Bond Markets
(In percent)

	2001	2002: Q1
EMBI+	-0.8	6.6
EMBI+ adj. for Arg.	19.8	6.8
Argentina	-66.8	-5.0
Brazil	7.2	8.2
Bulgaria	25.7	1.1
Colombia	30.8	0.7
Ecuador	36.1	14.5
Korea	14.5	1.3
Mexico	14.2	2.9
Morocco	11.1	4.8
Nigeria	22.4	7.8
Panama	17.9	3.9
Peru	26.2	7.5
Philippines	27.6	6.9
Poland	10.6	2.1
Qatar	21.4	2.3
Russia	55.8	12.1
Turkey	21.7	7.7
Ukraine	n.a.	10.2
Venezuela	5.5	11.3

Source: JP Morgan Chase.

With the EMBI+ spread compressing some 110 bps over the first quarter (and an additional 20 bps by mid-April), **market participants remain divided as to whether spreads have come in "too far too fast"**. Table 2.5 shows the spreads of the three largest components of the EMBI+ as of early May 2002, compared with their levels when the overall index spread was last at similar levels, as well as with October 1997, another time when this issue was widely debated. The market now places a much stronger political risk premium on Brazil than in May 1998, when it was just as far away from its elections as currently. Participants frequently expressed the view that the signs of "froth", such as Ukraine's 350+ basis point spread compression since the beginning of the year (to trade well inside Brazil) merely reflects a rational rotation of exposures away from more vulnerable to less vulnerable regions. The differences in Mexican and Russian spreads from May 1998, are also seen by most market participants to be fundamentally justified, and the market is clearly also not as "rich" as it was in October 1997. Proponents of the "too far too fast" view, on the other hand, contend that a significant portion of the rally in the first quarter was also driven by a factors such as a drop in risk aversion *within* the asset class, with credits like Ecuador, Ukraine, and Venezuela delivering highest period returns, and high rated credits underperforming. They also note that the longest duration bonds in most spread curves outperformed in the first

Table 2.5. Sovereign Spreads and Ratings
(In basis points)

	10-May-02		27-Feb-02		09-Jun-98		15-Oct-97 *	
EMBI+	648	--	670	--	545	--	341	--
EMBI+ Adj Argentina	547	--	561	--	--	--	--	--
Argentina	5188	Ca	4217	Ca	463	Ba3	331	Ba3
Brazil	952	B1	794	B1	580	B1	348	B1
Mexico	261	Baa2	279	Baa2	422	Ba2	325	Ba2
Russia	487	Ba3	549	Ba3	783	B1	300**	Ba2

Source: JP Morgan Chase and Moody's.

* EMBI spreads for October 15, 1997.

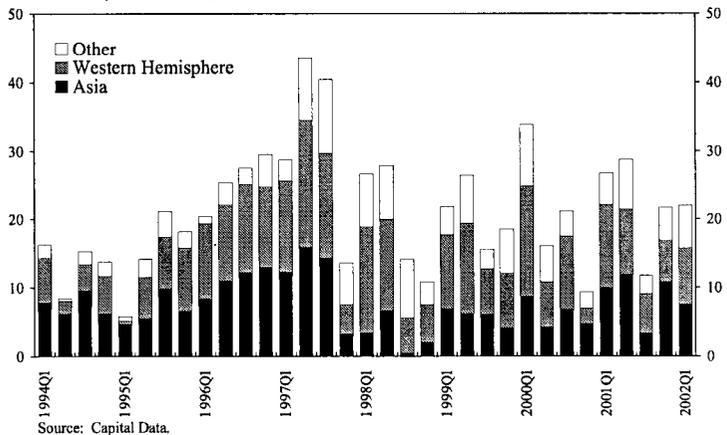
** Russia 2007 bond spread.

quarter, and point to other technical factors such as increased crossover investor exposure. Though past history and current valuations may not unambiguously suggest excessive spread compression, the combination of the technical position of the market, and a broadly benign set of assumptions on political risks (both country specific, and external), and the beginning of a rising interest rate environment, have led some to expect a correction.

The decoupling of Argentina from the rest of the emerging market sovereign credits continued during the first quarter, supported by inflows into the asset class. Our measure of contagion, the average cross-correlation of individual country returns in the EMBI+, continued to fall to an historic low of around 0.12, rebounding modestly late in the quarter. Most emerging market sovereigns continued to trade independently of Argentine sovereign bonds. However, the potential for a renewed bout of contagion remains, if conditions in Argentina deteriorate and the currency goes into a free fall. A sharply declining peso would not only have an impact on trading partners through real economy channels, but also could be expected to sour international investor sentiment to the emerging market asset class by raising the risk premium on holding these assets.

Emerging bond issuance has remained at healthy levels since international capital markets reopened in November, following the longest bond market drought since the Russian crisis. Despite the deteriorating situation in Argentina, bond issuance reached \$22 billion in the first quarter (see Figure 2.12). Investor demand was largely driven by the allocation of higher-than-normal cash levels among dedicated investors at the start of the year and the increased allocation by U.S. crossover investors. January was a particularly good month, with dollar issuance reaching its highest level since April 1999 and both Brazil and Mexico successfully launching \$1 billion plus issues. After a brief lull in February, issuance picked up strongly, and by the end of the first quarter, sovereign issuers had completed a considerable portion of their funding requirements for 2002. While a modest reallocation by U.S.-based crossover investors from emerging markets toward U.S. corporate markets weighed on new issue appetite in the latter part of March, some support has been found during early April from the large amount of coupon and amortization flows together with small inflows into emerging market funds.

Figure 2.12. Bond Issues
(In billions of U.S. dollars)



A salient feature of the quarter was the liability management transactions undertaken by a number of sovereigns, in the context of a supportive fixed income environment and a compression of emerging market spreads. In early February, Peru accessed international capital markets for the first time since 1928, launching a \$500 million 2012 global bond, followed by a \$1.2 billion Brady-eurobond swap. The Bulgarian government undertook a

\$1.32 billion Brady-eurobond exchange in late March, with the government swapping FLIRBS (Front-loaded Interest Reduction Bonds), IABs (Interest Arrear Bonds) and Discount bonds for either new 2015 dollar-denominated global bonds or new 2013 euro-denominated global bonds. Brazil issued a seven-year €500 million in euro-denominated bonds in late March, using part of the proceeds to buy back €36.4 million worth of eurobonds maturing between 2004 and 2006. The Mexican government continued with its liability management transactions in the first quarter and into the second quarter. In late March, Mexico announced plans to buy back \$500 million of dollar-denominated—and \$329 million of euro-denominated—floating rate bonds maturing in April 2004. Continuing with its debt management strategy in April, Mexico announced plans to retire the entire remaining stock amounting to \$153 million of series B Brady discount bonds in December 2019. The Finance Ministry also announced plans to buy back \$106 million of Brady bonds due 2019, freeing up an estimated \$51 million in collateral, and thereby retiring all series C Brady discount bonds.

Although the dollar segment of emerging bond markets was robust in the first quarter, the Argentine default continued to have a negative impact on the receptiveness of euro- and yen-based investors to new issuance, especially from Latin American credits (see Table 2.6). In particular, euro-denominated issuance declined in the first quarter from the fourth quarter of 2001, with European institutional investors primarily interested in ‘correctly-priced’

investment grade sovereign credits, including issues by Croatia, Cyprus, Israel, and Poland. In Japan, the Samurai market

Table 2.6. Currency of Issuance
(In percent of total)

	1999				2000				2001				2002
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
U.S. dollars	62	67	59	53	62	51	65	60	57	72	63	72	76
Euro	26	28	36	37	33	28	18	21	31	17	7	20	16
Yen	2	1	1	8	3	17	14	13	7	6	19	6	1

Source: Capital Data.

remained firmly shut, as retail investors continued to suffer from the impact of the Argentine and Enron defaults. It remains unclear when the euro and yen markets will fully reopen to new issuers, highlighting the vulnerability of emerging market issuers, especially Latin American ones, to any abrupt market closure in the dollar segment. Such concern remains at the forefront of many issuers minds, with Brazil’s March issue coming at a much higher-than-expected spread and only after an “exchange” component was introduced, and Uruguay’s issue proving harder-than-expected to place.

Looking forward, coupon and amortization flows combined with renewed inflows into dedicated emerging market funds should support the issuance pipeline in the short term. For sovereigns, this pipeline is full, dominated by investment grade issuers, including Chile, South Africa, and Tunisia in the dollar segment, and Lithuania and Morocco in the euro segment. With investors increasingly focused on political risk, greater difficulty may be encountered placing paper by regular sovereign Latin issuers, while issuers with an investment grade rating and/or “convergence plays” and “exotic” issuers with rarity value will likely continue to face unimpeded market access. Corporates from the region may be expected to continue to come to market with enhanced structures or political risk insurance.

Equity Markets

Emerging equity markets significantly outperformed global equity markets during the first quarter of 2002 (see Table 2.7). Emerging Asia was the best performing region, on the back of the exceptionally strong performance by Korea (+28.4 percent) and solid gains by Malaysia (+11.9 percent), Taiwan Province of China (+8.6 percent), and India (+6.9 percent). The impressive gains by tech-heavy Asian markets stand in sharp contrast to the 5.4 percent decline in the Nasdaq, reflecting the differences in product mix, balance sheets, and valuations of tech and telecom companies in emerging markets and those in developed ones.⁷ China was the worst performing market in Asia, posting negative returns (-3.6 percent), due to concerns about the overvaluation of stocks and oversupply of shares as the government plans to divest its asset holdings through IPOs, as well as stepped up regulatory investigations. These concerns spilled over, constraining stock market gains in Hong Kong SAR and Taiwan Province of China. In addition to a heavy privatization schedule, Taiwan Province of China's National Stabilization Fund announced early in the year that it would accelerate its ongoing program of divestiture, leading investors to expect large block sales of shares throughout the quarter.

Latin American equities rose 7.1 percent, led by Mexico (+17.1 percent). The Argentine stock market index lost almost 50 percent in dollar terms, but given Argentina's weight in the Emerging Market Free (EMF) of 1 percent as of the end of 2001, its broader impact was negligible. Emerging Europe, Middle East and Africa gained 5.1 percent, with the two largest oil/commodity exporters in the region, Russia and South Africa, gaining 10.7 percent and 18.6 percent, respectively.

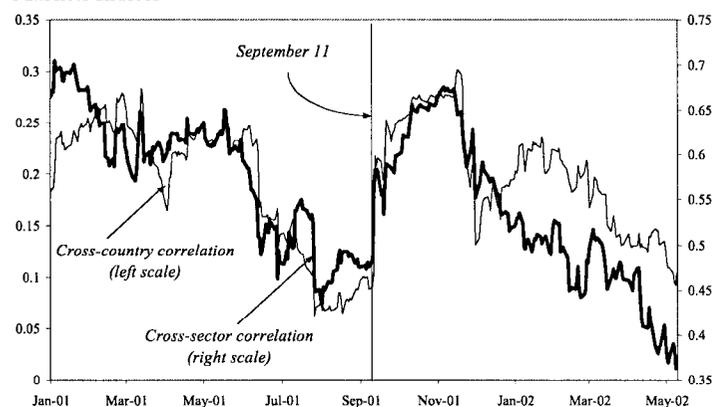
Notably, when equity market sentiment was dominated by concerns about the quality of corporate balance sheets, investors in emerging markets had a more difficult time making "country calls" than "sector calls," as seen in rising cross-country correlations while cross-sector correlations continued to decline (see Figure 2.13). However, investor

Table 2.7. Performance of Emerging Equity Markets
(In percent, dollar indices)

	2002: Q1	April 2002
Regions		
EM Free	10.7	0.4
EM Asia	14.9	0.1
EM LatAm	7.1	-1.8
EMEA	5.1	3.7
Mature Market Comparators		
ACWI Free	0.7	-3.3
MSCI US	-0.1	-6.6
Nasdaq	-5.4	-8.5
MSCI EU	-1.0	-1.5
MSCI Japan	1.1	5.8

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

Figure 2.13. Average Correlations of the Returns on Emerging Equity Markets Indices



Source: Morgan Stanley Capital International.

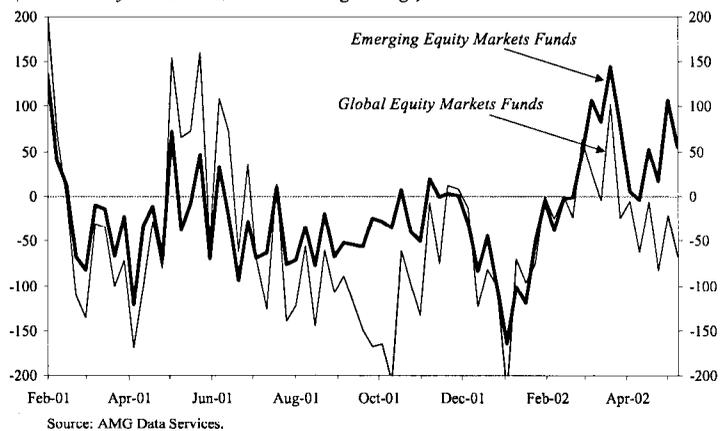
⁷ See the previous issues of the IMF's quarterly *Emerging Markets Financing* for the discussion of these differences, available at www.imf.org/external/pubs/ft/emf/index.htm.

discrimination rose later in the quarter amid diminished balance sheet concerns and the dominating influence of the U.S. recovery story.

Consumer cyclicals and industrial cyclicals were the best performing sectors in the emerging market universe, followed by financials, TMT and defensive sectors. The relative strength of consumer cyclicals underscored the fact that robust consumption growth supported by recovering export demand was a key factor explaining the gains in some of the best performing markets this quarter, particularly Korea and Mexico.

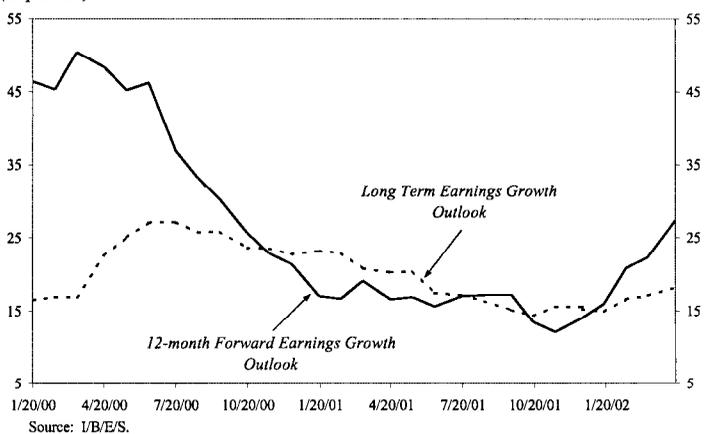
Net flows into emerging equity market picked up during the quarter, with dedicated emerging market equity funds registering positive inflows both in February and March (see Figure 2.14). Net inflows into the U.S.-based emerging market equity funds over the quarter (+\$0.7 billion) significantly exceeded net inflows into the global equity funds (+\$0.1 billion). Local retail investors in emerging equity markets have also shown greater signs of participation, particularly in Asia.

Figure 2.14. Net Inflows into U.S. Equity Mutual Funds
(In millions of U.S. dollars, 4-week moving average)



Earnings growth expectations during the quarter were optimistic, with both near-term and long-term earnings forecasts being continuously revised upward throughout the quarter. The 12-month forward consensus 2002 earnings growth forecast for the EMF Index was revised up from 14 percent in December 2001 to 22 percent in March 2002 (see Figure 2.15). At the same time, emerging market valuations remained substantially lower than mature market valuations.

Figure 2.15. Emerging Market Earnings Forecasts
(In percent)



While the historical evidence is mixed, more recent data suggest emerging equity markets outperform mature ones at the early stages of a U.S. economic rebound, provided none of the major emerging equity markets is in crisis. An analysis of the balance of risks for emerging equity markets, suggests that emerging markets should perform at least as well as (or better than) mature markets at the early stages of the monetary tightening cycle, when

global equity markets and global growth are recovering, earnings expectations are rising, and commodity price increases are not too sharp (see Box 2.5).

International equity issuance by emerging markets was around \$4 billion during the quarter, representing an improvement compared to the previous quarter (\$2.6 billion) and in the first quarter of 2001 (\$2.3 billion) (see Figure 2.16). Once again, issuance was dominated by Asian names. Four

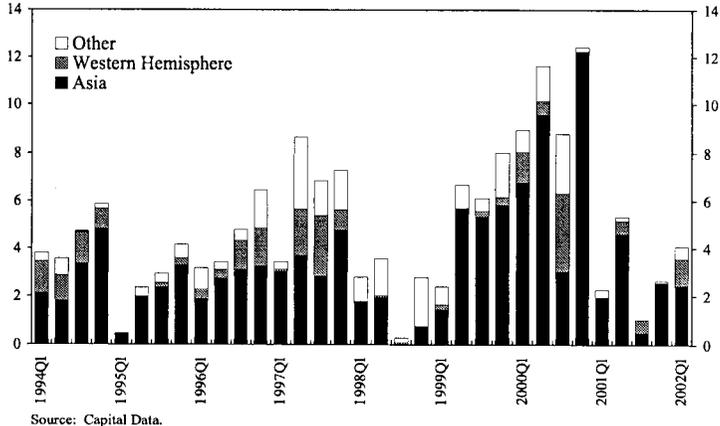
privatization issues (three Taiwanese tech firms and a Brazilian mining company) accounted for more than 60 percent of total issuance.

The largest equity placement, a \$1 billion offering by Taiwan Semiconductor Manufacturing Company was 1.6 times oversubscribed, with three-quarters of the new shares acquired by U.S.-based funds.

The pipeline of issues from China continued to swell, with more

then 300 companies reportedly expressing interest in securing overseas listings. The market also expects several Chinese jumbo privatization issues this year (including international equity placements by the Bank of China, China Telecom South, and China Unicom).

Figure 2.16. Equity Placements
(In billions of U.S. dollars)



Source: Capital Data.

Box 2.5. The Balance of Risks for Emerging Equity Markets

Returns on emerging equity markets are sensitive to unanticipated changes to a number of global risk factors, including: (1) Group of Seven government bond yield spreads (time horizon risk); (2) Group of Seven industrial production (business cycle risk); (3) the real commodity price index (terms of trade risk); (4) the 12-month forward global earnings yield (earnings revisions risk); and (5) variations in the market risk premium unexplained by items 1 through 4 (market timing risk, also referred to as the market beta).

The regression sample covers the period from January 1995 to March 2002. The independent variables are the detrended monthly changes in the variables described above. Global and emerging equity market risk premiums are calculated using the dollar-denominated MSCI ACWI Free and EM Free equity indices and short bond yields. Segments of the emerging equity markets are represented by the corresponding MSCI indices.

Regression coefficients

Dependent variables	EMF Info.						
	EMF	Latin America	EMEA	Asia	Technology	EMF Telecom	EMF non-TMT
Constant	-0.01	0.00	0.00	-0.01 *	0.00	-0.01	-0.01 **
'Time horizon' risk	0.05 **	0.04 *	0.04 *	0.06 ***	0.07 ***	0.04 ***	0.04 ***
'Business cycle' risk	0.02 *	0.03	0.03 *	0.01	0.01	0.01	0.02 *
'Terms of trade' risk	-0.01 ***	-0.01 **	-0.01 ***	-0.02 ***	-0.02 ***	-0.01 ***	-0.01 ***
'Earning revisions' risk	0.07 ***	0.06 **	0.05 *	0.09 ***	0.08 **	0.06 **	0.07 ***
'Market timing' risk	1.28 ***	1.49 ***	1.35 ***	1.03 ***	1.67 ***	1.72 ***	1.10 ***
Adj R-sq	0.66	0.49	0.49	0.58	0.52	0.64	0.58

Sources: Bloomberg L.P.; I/B/E/S; Merrill Lynch; and IMF staff estimates.

* denotes statistical significance at 0.1 level; ** denotes statistical significance at 0.05 level

*** denotes statistical significance at 0.01 level

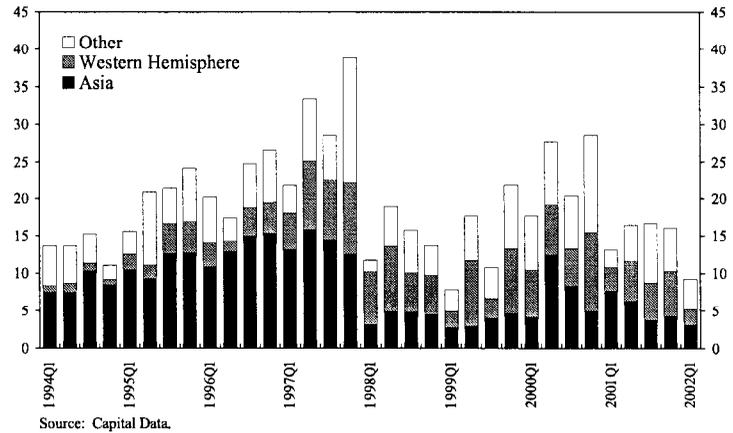
- Almost all risk factors except business cycle risk have a statistically significant impact on emerging market equities.
- Market timing risk (or market beta) is an important global risk factor for all emerging equity market segments. All emerging equity market segments tend to react more than proportionately to returns on global equity market indices. The sensitivity of the TMT sector to market timing risk is much higher than that of the non-TMT sector.
- All emerging market segments are hurt by unexpected increases in commodity prices.
- Asia and EMF IT tend to benefit more than other emerging market segments from the widening of global bond yield spreads, which tends to occur during the early stages of the monetary tightening cycle.
- All emerging equity market segments react positively to unexpected upgrades of the forward global earnings yield, with Asia and EMF IT being particularly sensitive to changes in expectations about the future earnings potential of global equities.

The above analysis suggests that, on balance, emerging markets should perform at least as well as (or better than) mature markets at the early stages of the monetary tightening cycle, when global equity markets and global growth are recovering, earnings expectations are being revised upward, and commodity price increases are not too sharp.

Syndicated Lending

Syndicated lending to emerging markets declined in the first quarter of 2002, reflecting lenders' heightened awareness of credit risk post-Enron and increased caution after losses suffered on Argentine exposures. In the context of a tightening in lending standards, the overall volume of lending fell to \$9.2 billion in the first quarter of 2002 from \$17.5 billion in the fourth quarter of last year (see Figure 2.17). In the context of the focus on banks' credit quality, emerging markets have suffered along with other relatively high-risk lending by mature market banks. While loan volumes were particularly low in January and February, lending has picked up since early March and is expected to gather pace into the second quarter.

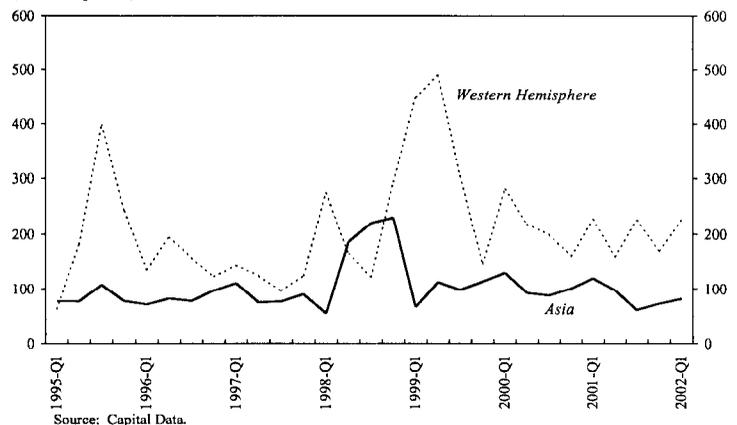
Figure 2.17. Syndicated Loan Commitments
(In billions of U.S. dollars)



Latin America suffered the steepest decline in volumes. Mexico benefited from the flight to quality, although most lending was secured, while in Brazil, Chile, and Colombia, sovereign and public sector entities accounted for much of the borrowing. Brazilian deals were reportedly the toughest to syndicate, given the lack of political risk insurance and lack of retail demand. Asian corporates continued to express little demand for investment capital, and deal flow was related primarily to refinancing. In contrast, emerging European and Middle Eastern markets (EMEA) proved buoyant, with Russia a hive of activity following its recent credit rating upgrade. While deals continued to be secured by gold or other commodity delivery contracts, a wider array of corporates, including banks, gained market access, albeit for small amounts and at high margins. Elsewhere in the EMEA region, South African corporates and banks proved active, Oman LNG received a secured \$1.3 billion refinancing facility and Qatar's Ras Laffan \$572 million water and power project was successfully completed, the latter benefiting importantly from funding by regional players.

On the pricing front, the syndicated lending market in Asia remains characterized by stiff competition between banks to lend to the top tier corporates and financial institutions, while lower tier borrowers remain excluded from the loan market. As a result, loan spreads remained broadly flat at low, near pre-Asian crisis levels. Notwithstanding the flight to quality within Latin America, syndicated loan spreads rose sharply, as attention focused squarely on credit quality (see Figure 2.18).

Figure 2.18. Loan Weighted Interest Margin, 1995-2002
(In basis points)



Foreign Exchange Markets

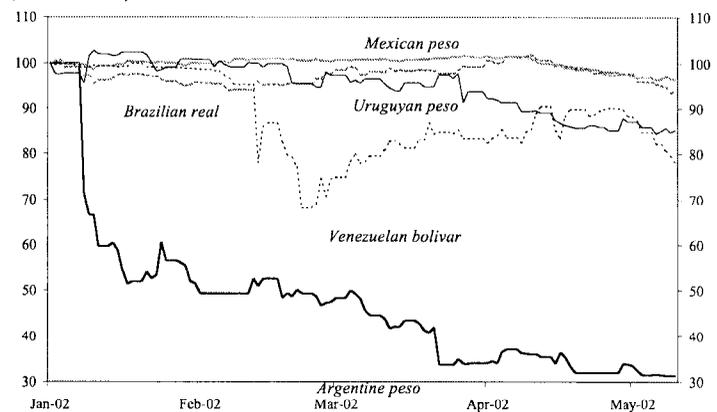
Emerging market currencies performed well during the quarter, helped by rising equity markets and, in some cases, commodity prices boosted by expectations of stronger world growth.

Argentine authorities adopted a free floating exchange regime in early January following a sovereign debt default at the end of last year. During the quarter, the peso fell as low as 2.975 pesos per dollar, and it ended the quarter down 66.1 percent. This was a faster and larger depreciation than had been experienced by the Brazilian *real* at the time it abandoned its peg to the dollar in early January 1999 and was akin, in some respects to the depreciations seen during the Asian crisis. However, the floating of the currency provided one of the necessary conditions for the authorities to start the process of defining a

comprehensive package to reestablish macroeconomic stability. As in other markets, the ending of the pegged exchange rate in Argentina had a smaller impact on currencies than had been feared. The Brazilian *real* was briefly tested, but was supported by strong portfolio inflows and finished the quarter little changed. The Venezuelan bolivar fell only in February (see Figure 2.19) amid accelerating capital flight and increasing political tension, when

the government abandoned its crawling band exchange rate system and allowed the currency to float freely. The bolivar swiftly depreciated more than 25 percent before regaining some ground to end 17.8 percent lower for the quarter. This was a considerably stronger level than some commentators had predicted at the time the currency was floated. The currency has strengthened further since, despite political and economic turmoil, in part due to higher oil prices and very tight liquidity conditions.

Figure 2.19. Latin American Currencies
(1/1/2002=100)



Source: Bloomberg L.P.

The Turkish lira strengthened as the authorities continued to implement the IMF-supported program and inflation fell. The currency appreciated 8.3 percent during the quarter, bringing the total appreciation since mid-October to more than 20 percent, as the trend toward dollarization of the economy appeared to have diminished. Increasingly, concerns were expressed about the possible impact of the strong currency on the government's growth objectives under the program. Market participants were inclined to accept that the currency had become overvalued, but some believed the lira may have to overshoot for a prolonged period before falling back. After having weakened suddenly in

December, the South African rand rebounded, helped in part by higher commodity prices. The rand strengthened 6.1 percent during the quarter.

Currencies in Eastern Europe benefited from the convergence play and generally good economic data. The forint, koruna, and zloty weakened against the dollar in January in line with a weaker euro. From that point, all three currencies strengthened consistently, driven by expectations of eventual entry into the European Union, foreign investment inflows, and generally positive economic data.

The Czech koruna was particularly strong during the latter part of the quarter, rising 5.7 percent from its low at end-January to end-March, with a further modest gain in April. The currency's rapid appreciation was due to expectations of large capital inflows from greenfield FDI and privatization, as well as hedging by exporters. To a degree, the stronger exchange rate was thought justified on the basis of improved efficiency and expectations of EU accession and eventual adoption of the euro. At the same time, the speed of the appreciation could complicate macroeconomic management in the near term. The authorities therefore agreed to keep privatization proceeds from the foreign exchange market. Moreover, to stem the currency's rise, the central bank intervened on several occasions during the first four months of 2002, and reduced interest rates by a cumulative $\frac{3}{4}$ percentage points. The zloty, too, reached its strongest level consistent with economic fundamentals.

In Asia, carry trade investors bought the Korean *won*, Thai baht, and Singapore dollar. The Thai baht rose a little over 1.5 percent against the dollar during the quarter, but for the most part investors had to be content with the yield pick-up. Yen-funded investors, in particular, had to be satisfied with only the yield pick-up as the major Asian currencies followed the yen even more closely than in previous quarters. In addition, the Philippine peso strengthened steadily as sentiment towards the currency became more positive (see Figure 2.20). Yields in the non-deliverable forwards (NDFs) market fell sharply. A new factor at the end of the quarter was the possibility of a revision of the Chinese yuan peg, but markets doubt any change will be made in the short term (see Figure 2.21).

Figure 2.20. Asian Currencies: Cross Rates against the Yen (12/31/01=100)

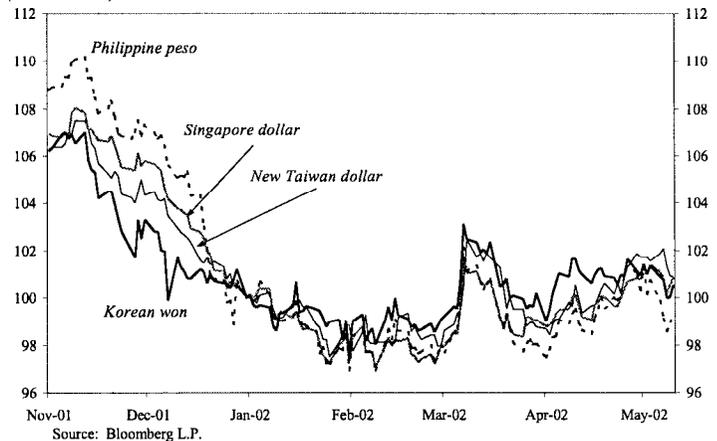
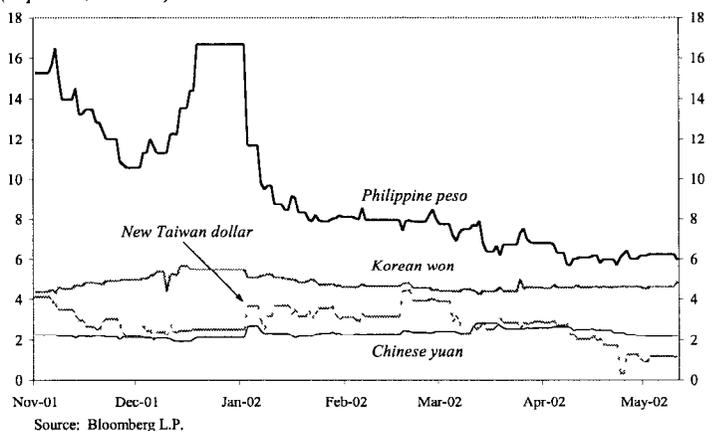


Figure 2.21. Asian Currencies: Non-Deliverable Forward Implied Yields (In percent, 3 months)



References

Goldman Sachs & Co., 2002, *Global Interest Rate Strategy*, (New York, April 9).

IMF, 2002, *Global Financial Stability Report*, World Economic and Financial Surveys
(Washington: International Monetary Fund, March).

_____, 2002a, *Emerging Market Financing*, various issues.

III. The Financial Market Activities of Insurance and Reinsurance Companies

Insurance and reinsurance companies are an important and growing class of financial market participants. They insure a wide variety of business and household risks, thereby facilitating economic and financial activity. In addition, amid a drive to raise profitability they have become increasingly important investors and intermediaries in a broad range of financial markets around the globe. They bring innovative insurance approaches to capital markets, providing insurance cover for financial risks, intermediating their own insurance risks in the markets, and in the process developing new instruments that help to bridge the gap between banking and insurance products. Insurers and reinsurers have broadened the range of available instruments, increased the diversity of market participants, created new opportunities for corporations and financial institutions to fund their activities and hedge risks, and contributed to liquidity and price discovery in primary and secondary markets.

Compared with commercial and investment banking, much less is known about the financial activities of insurance and reinsurance companies and the overarching environment in which insurance and reinsurance companies conduct their core businesses. This chapter tries to fill part of this gap by identifying issues that are likely to attract increasing attention and that may have medium-term implications for financial stability and/or efficiency. The first section of this chapter discusses the size and structure of insurers' and reinsurers' financial activities and how they have evolved in recent years. The second section explores some of the more forward-looking financial stability issues, including those surrounding a number of uncertainties about insurers' and reinsurers' financial markets activities, and the attendant potential implications for financial efficiency and stability in the medium term.

Insurance and Reinsurance Financial Activities

Insurance companies' asset holdings grew substantially during the 1990s, including relative to banks. Between 1990 and 1999, the financial assets of insurers in seven major countries grew by 150 percent to over \$10 trillion, while the assets of banks in the same countries grew by 50 percent to \$25 trillion (Figures 3.1 and 3.2).¹ In most countries, insurance companies hold larger amounts of financial securities than banks (Figure 3.3). Moreover, their holdings of international and domestic securities are large relative to domestic markets (Figure 3.4).² For example, U.S. insurers are the largest domestic investors

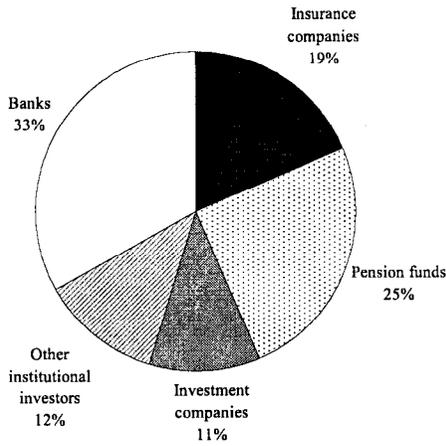
¹ The seven countries are France, Germany, Italy, Japan, Switzerland, the United Kingdom, and the United States.

² For most countries, holdings of securities are not broken down into domestic and foreign. It is therefore impossible to make cross-country comparisons of domestic holdings relative to domestic market size.

Figure 3.1. Total Financial Assets of Institutional Investors and Banks: United States and Japan

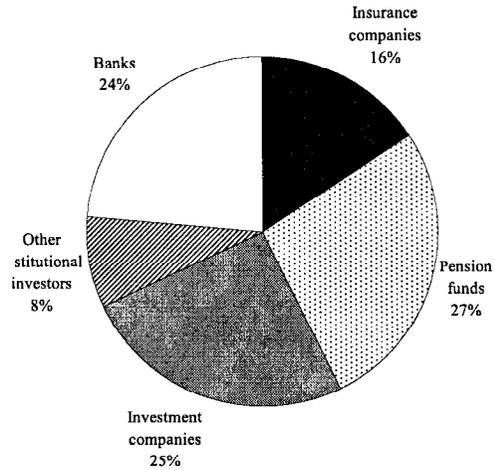
United States: 1990

Total assets: \$10,159.7 bn



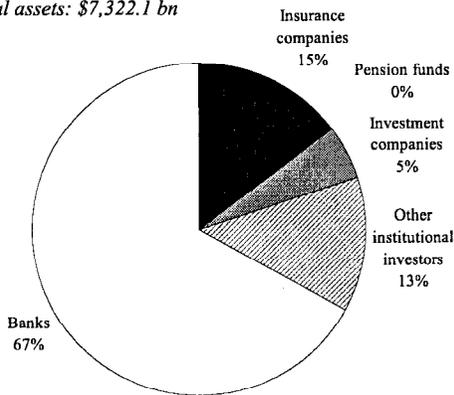
United States: 1999

Total assets: \$25,447.3 bn



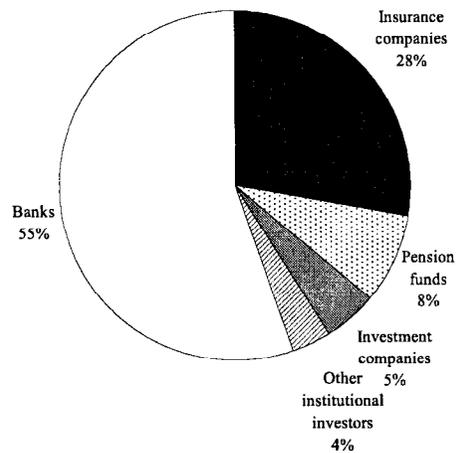
Japan: 1990

Total assets: \$7,322.1 bn



Japan: 1999

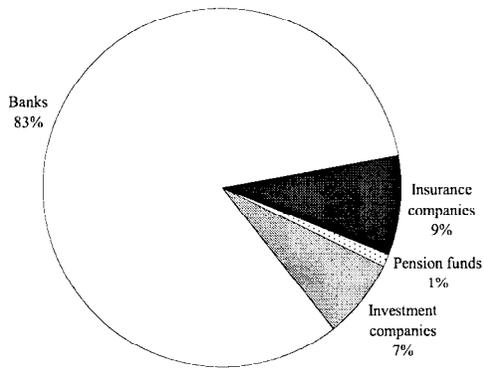
Total assets: \$11,256.2 bn



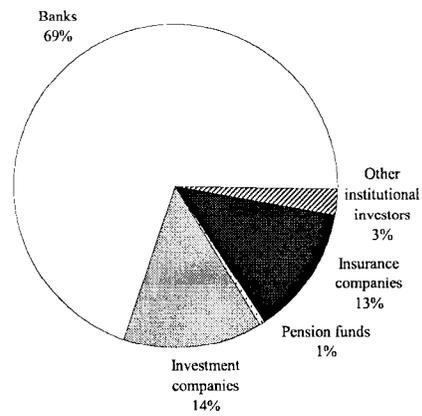
Source: OECD.

**Figure 3.2. Financial Assets of Institutional Investors and Banks:
Selected Euro Area Countries and United Kingdom¹**

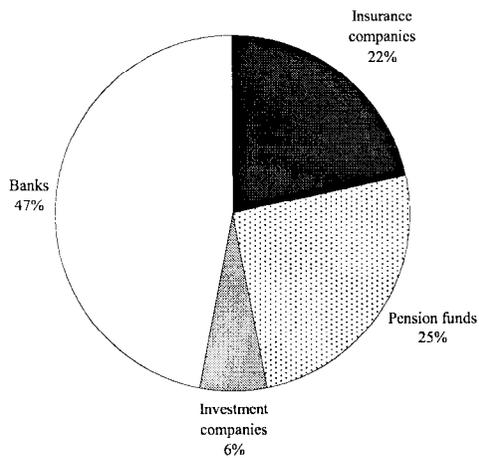
Selected euro area countries: 1990
Total assets: \$8,079.3 bn



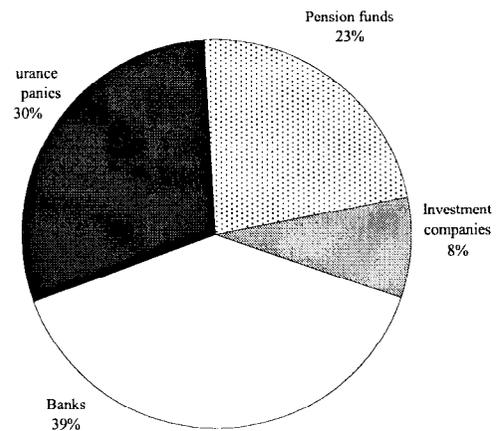
Selected euro area countries: 1999
Total assets: \$14,320.9 bn



United Kingdom: 1990
Total assets: \$2,107.1bn



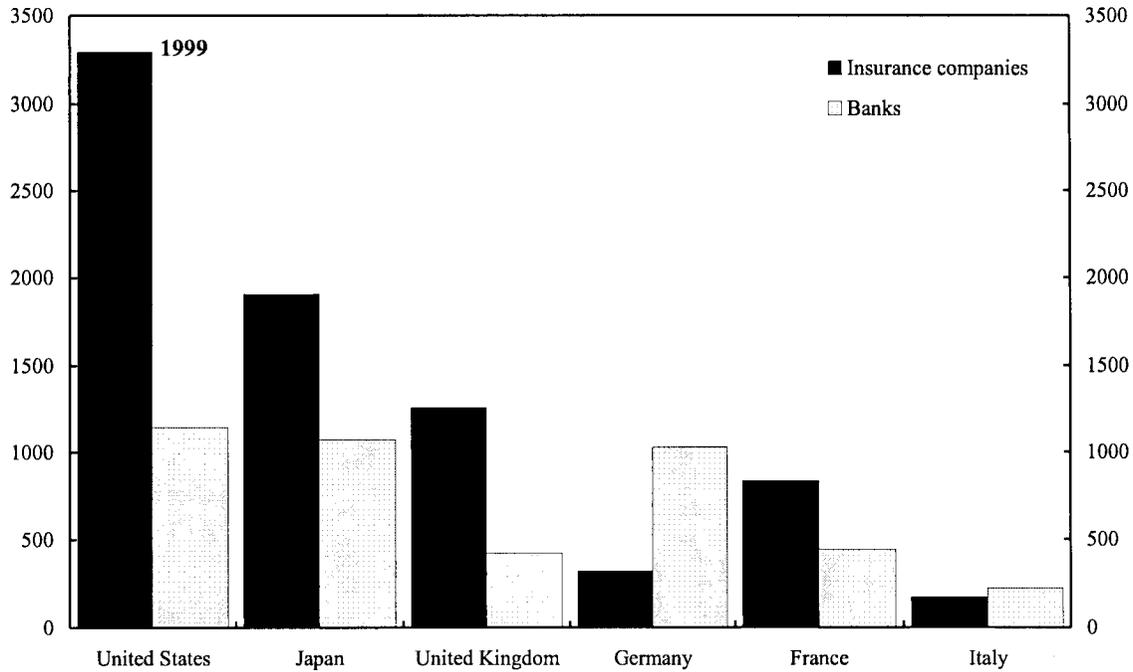
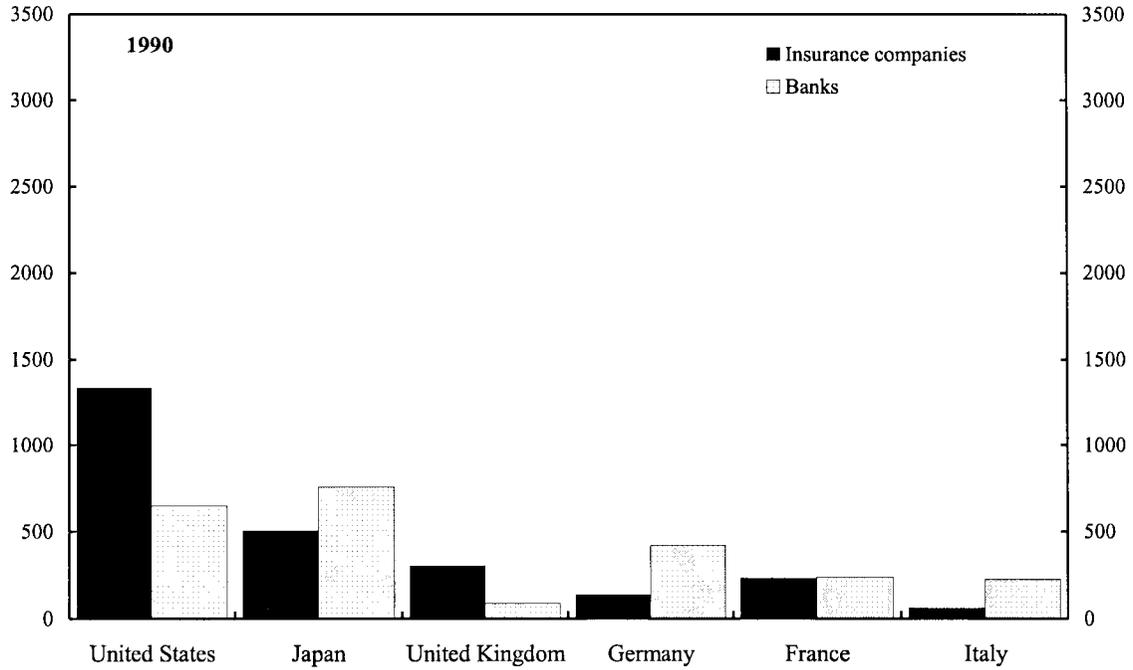
United Kingdom: 1999
Total assets: \$5,364.4 bn



Source: OECD

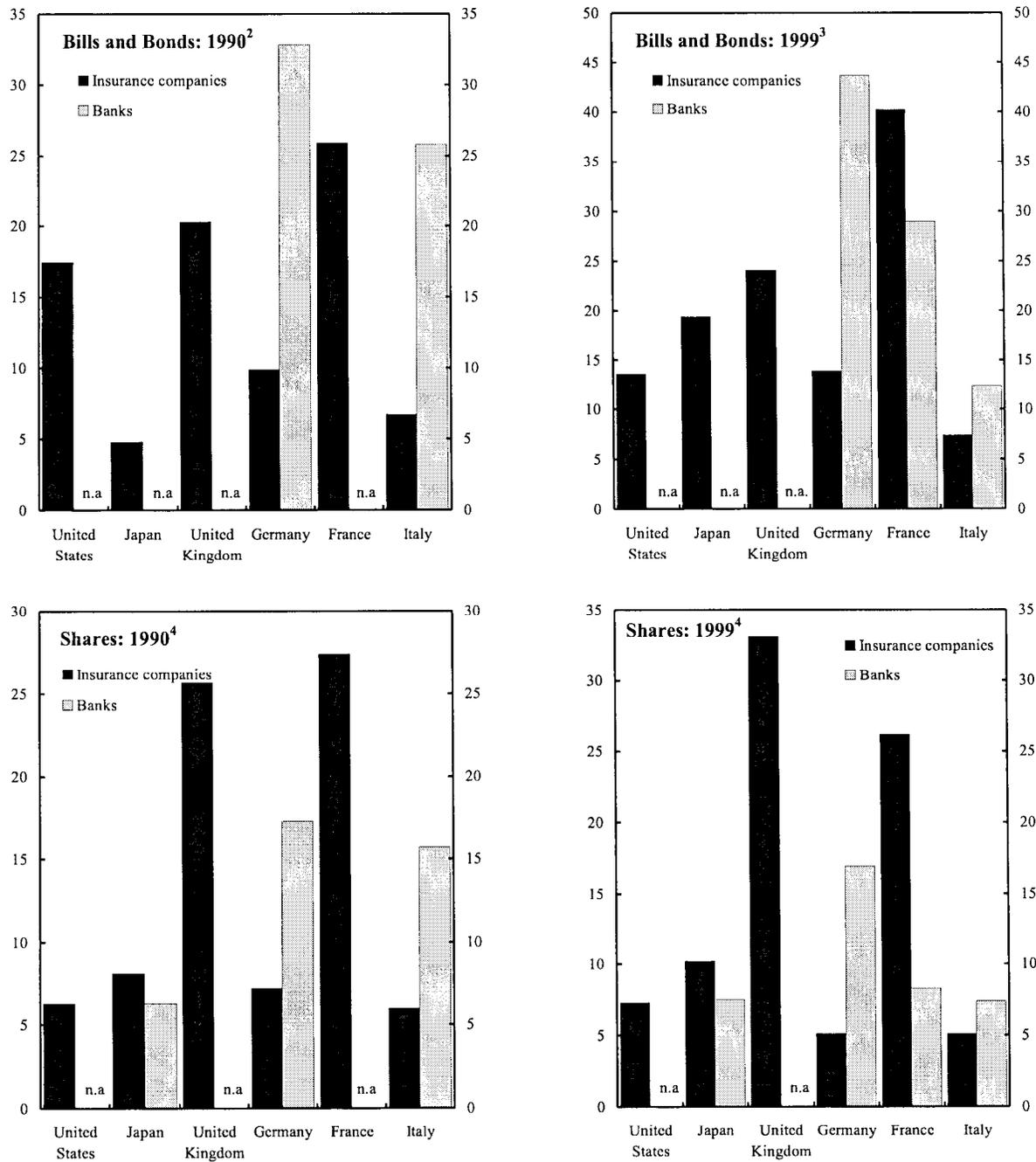
¹Selected euro area countries are Germany, France, and Italy.

Figure 3.3. Holdings of Financial Securities by Insurance Companies and Banks
(In billions of U.S. dollars)



Source: OECD.

Figure 3.4. Holdings of Securities Relative to Domestic Market Size¹
(In percent)



Source: OECD.

¹Bank holdings include resident and non-resident holdings.

²For Germany, France, and Italy data refer to resident and non-resident holdings.

³For Germany and France data refer to resident and non-resident holdings.

⁴Holdings of shares include resident and non-resident holdings.

in corporate and foreign bonds (Figure 3.5). Insurance companies' large asset pools are mainly invested conservatively, consistent with regulatory restrictions, although the composition of asset portfolios varies substantially across countries (Figures 3.6-3.7).³

In addition to investing, life insurance companies offer retail financial products in the form of hybrid insurance contracts/mutual funds. These are growing rapidly in some countries. In the United States, about half of all new life insurance policies are unit-linked (linked to market returns). Such products are also popular in Europe, where they may have tax advantages over mutual funds. In Italy, they include single-premium, unit-linked products, which exchange a large up-front payment for a mutual fund that incorporates a life insurance policy. Such products are often sold through *bancassurance* groups or joint ventures between banks and insurance firms.

Influences on Insurers' Profits and Approaches to Their Financial Activities

The overall profitability of an insurance company depends on the net profitability of its insurance underwriting and financial activities. Three main factors influence this profitability: (1) The incidence and size of claims. Notable increases in nonlife insured losses arose following Hurricane Andrew in 1992 and September 11 in 2001 (Figure 3.8). (2) The prevailing level of premiums. During the 1990s, premiums have tended to grow at an inflation-adjusted rate of about 5 percent (higher for life, lower for nonlife)—well below average rates attained during the 1980s (see Figure 3.8 and Table 3.1). (3) The performance of financial markets. Since the early 1980s, insurance companies in the major countries have been increasingly successful in reaping investment returns that compare favorably with the yield on domestic government bonds (see Figure 3.8).

Since the mid-1990s, insurance loss ratios (relative to premiums) ranged from 57 percent in Japan to 85 percent in France (see Table 3.2, which focuses on nonlife companies). Expense-to-premium ratios ranged from 23 percent in France to 36 percent in Japan. Adding these two ratios into the "combined ratio" gives a standard, widely-used measure of the overall profitability of an insurance company's core underwriting business (apart from the return on its market investments). As Table 3.2 and Figure 3.9 show, in most countries, nonlife insurers had combined ratios above 100 percent, implying that on a cash-flow basis and excluding investment returns, insurance underwriting was loss-making. Except in Germany and Japan, losses plus expenses exceeded premiums by 5 percent to 14 percent. In Japan and Germany, returns on underwriting were 3.3 percent and 1.5 percent respectively.⁴

³ See Joint Forum (2001a) for more detailed explanations of regulatory restrictions.

⁴ In the late 1990s, the positive results in Germany and Japan partly reflect accounting conventions that exclude some expenses or include investment income in the combined ratio. See Swiss Re (2001).

Table 3.1. Life Insurance: Premium Growth Rates

	Single Premiums as a Percent of Total Life Business		Average Annual Growth Rates 1995-2000 (in percent)	
	1995	2000	Single Premiums	Annual Premiums
United States ¹	12.7	16.2	8.1	2.1
Japan	9.8	6.8	-10.6	-3.1
United Kingdom	47.4	76.9	29.8	-0.1
France	69.2	71.7	6.1	3.5
Germany	9.3	11.6	9.3	4.0
Italy	36.9	60.1	36.9	13.4
Australia	59.7	82.3	19.6	-4.8
Netherlands	38.7	46.3	12.9	6.2
Switzerland	48.8	55.4	7.4	1.9
South Africa ²	9.0	8.4	7.2	9.2

Source: Swiss Re, *sigma* No 6/2001.

¹Only personal life business.

²Time period 1995-99.

Table 3.2. Profitability Decomposition of Major Non-Life Markets
(In percent of net premiums)

	United States 1996-00	Canada 1996-00	United Kingdom 1996-99	Germany 1995-99	France 1995-99	Italy 1995-99	Japan 1995-99
Loss ratio	77.5	73.4	75.4	70.5	84.5	85.7	56.7
Expense ratio	27.4	32.0	32.5	25.3	22.5	27.1	35.7
Underwriting result ¹	-6.5	-5.7	-7.9	1.5	-8.3	-14.1	3.3
Investment yield ²	7.0	8.3	9.0	7.2	5.8	7.8	2.9
Net investment result	18.8	16.5	24.6	15.7	15.4	15.8	12.4
Other expenses/earnings	-0.1	0.9	-2.7	-6.6	-1.5	1.9	-11.8
Profit margin (pre tax)	12.2	11.7	14.0	10.5	5.7	3.1	3.9
Tax rate ²	21.2	29.4	24.0	60.3	41.6	87.6	69.9 ⁴
Profit margin (after tax)	9.6	7.9	10.7	4.1	3.4	0.8	1.0
Solvency	106.1	84.9	102.7	145.4 ⁵	111.5	n.a.	n.a.
ROE ²	9.1	9.4	10.1	2.9 ⁵	3.2	n.a.	n.a.

Source: Swiss Re, *sigma* No 5/2001.

Note: Loss, expense, policyholder dividend and combined ratios for US, Canada and UK are net of reinsurance, whereas for Germany, France, Italy and Japan they are for direct business (prior to cessions to reinsurers).

¹Includes policyholder dividend.

²Level, rather than in percentages of net premiums.

³Includes reserves for maturity-refund policies, which are about 45 percent of assets and 30 percent of premiums.

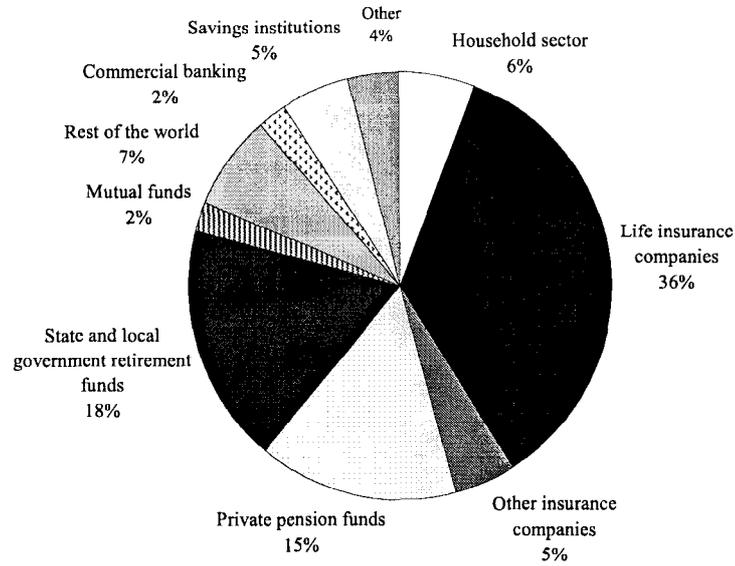
⁴Excludes 1999 because in 1999 taxes were paid despite pre-tax losses, resulting in a calculated negative 631 percent tax rate for 1999.

⁵For 1998 and 1999.

Figure 3.5. United States: Corporate and Foreign Bonds
(As a percentage of total amounts outstanding; end of period)

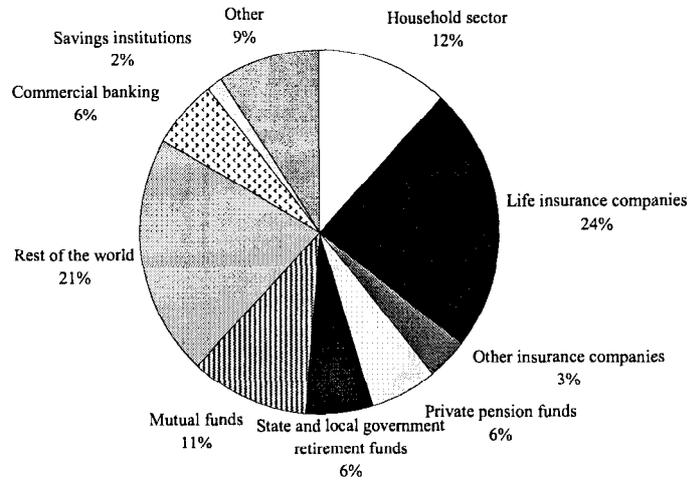
1980

Total amounts outstanding: \$507.6 bn



2001

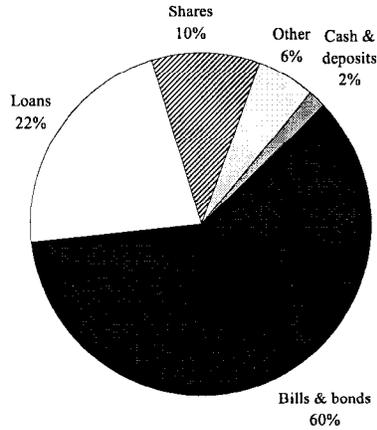
Total amounts outstanding: \$5,528.1 bn



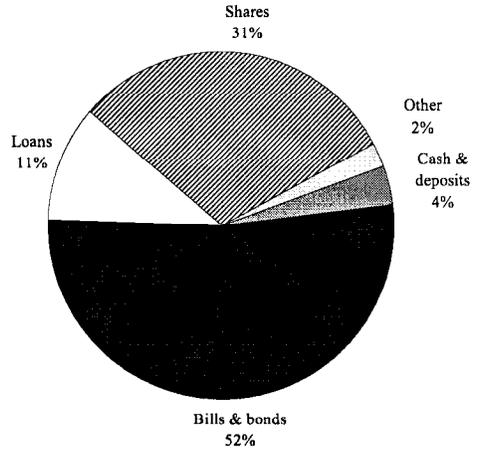
Source: U.S. Flow of Funds.

Figure 3.6. Balance Sheet Assets of Insurance Companies: United States and Japan

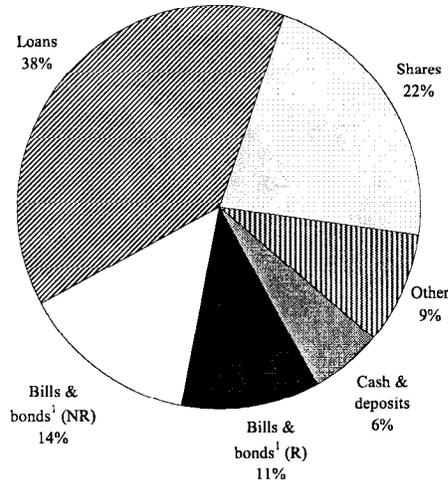
United States: 1990
Total assets: \$1,884.8 bn



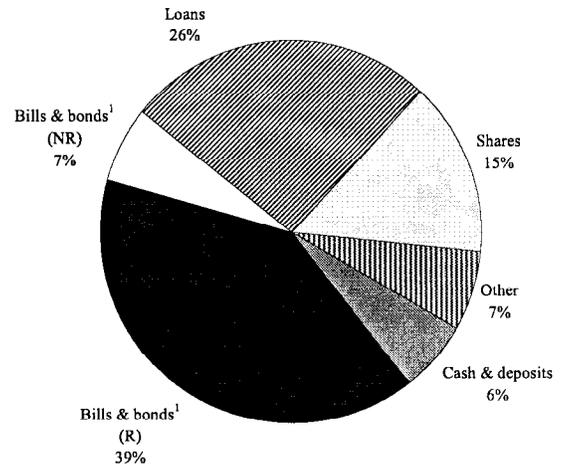
United States: 1999
Total assets: \$3,944 bn



Japan: 1990
Total assets: \$1,071.4 bn



Japan: 1999
Total assets: \$3,113.4 bn

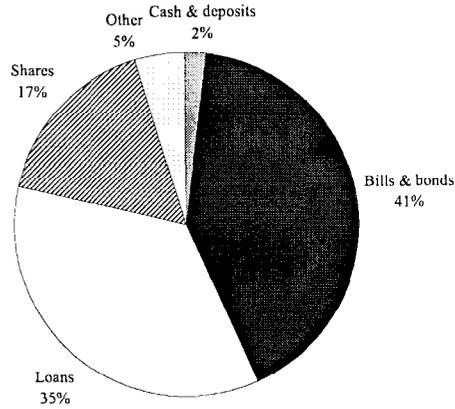


Source: OECD.

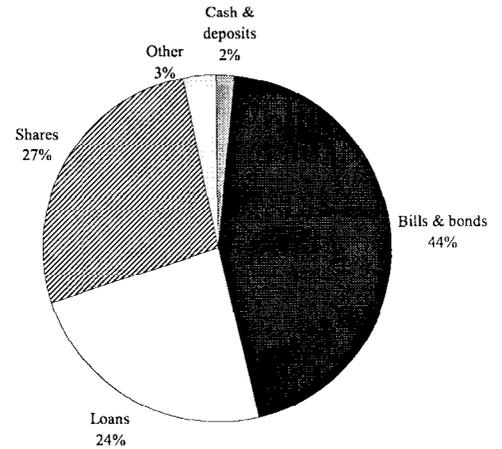
¹Bills and bonds issued by residents (R) and non-residents (NR).

**Figure 3.7. Balance Sheet Assets of Insurance Companies:
Selected Euro Area Countries and United Kingdom¹**

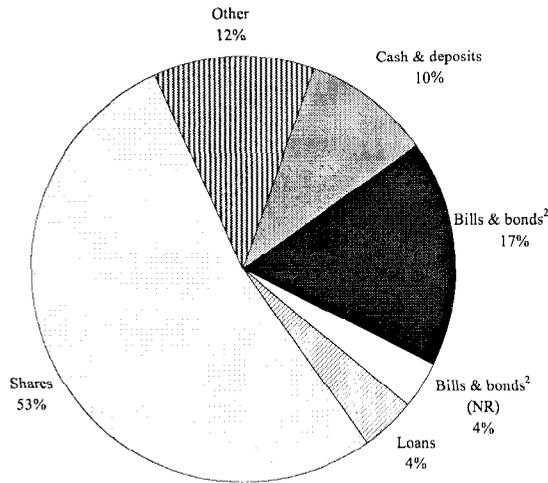
Selected euro area countries: 1990
Total assets: \$ 729.6 bn



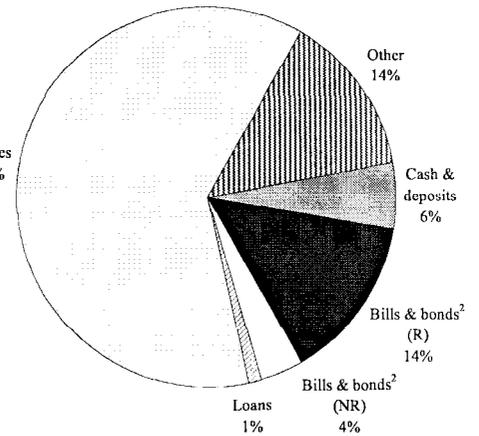
Selected euro area countries: 1999
Total assets: \$ 1,860.8 bn



United Kingdom: 1990
Total assets: \$ 499.1 bn



United Kingdom: 1999
Total assets: \$ 1,867.6 bn

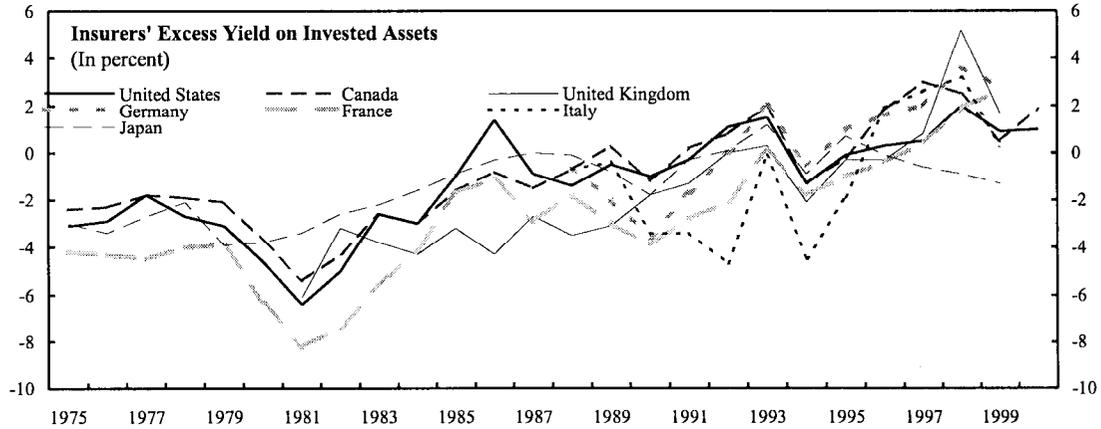
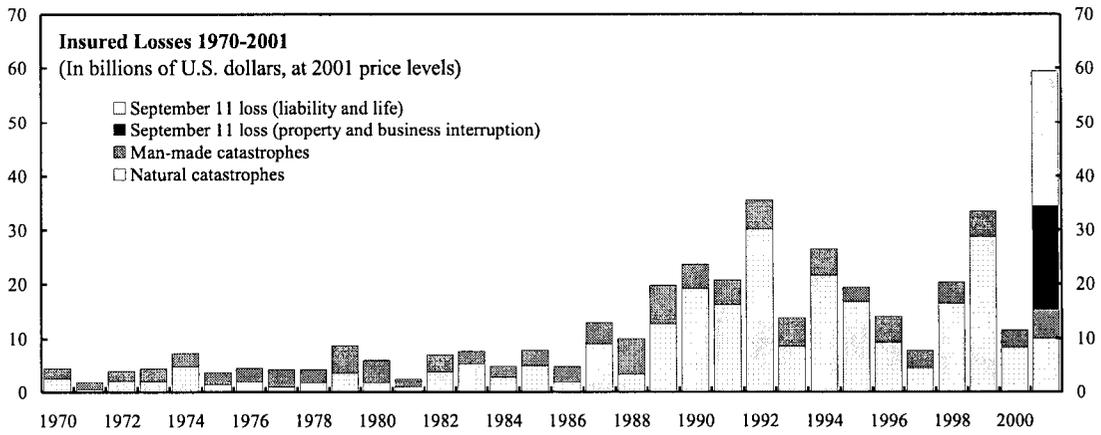
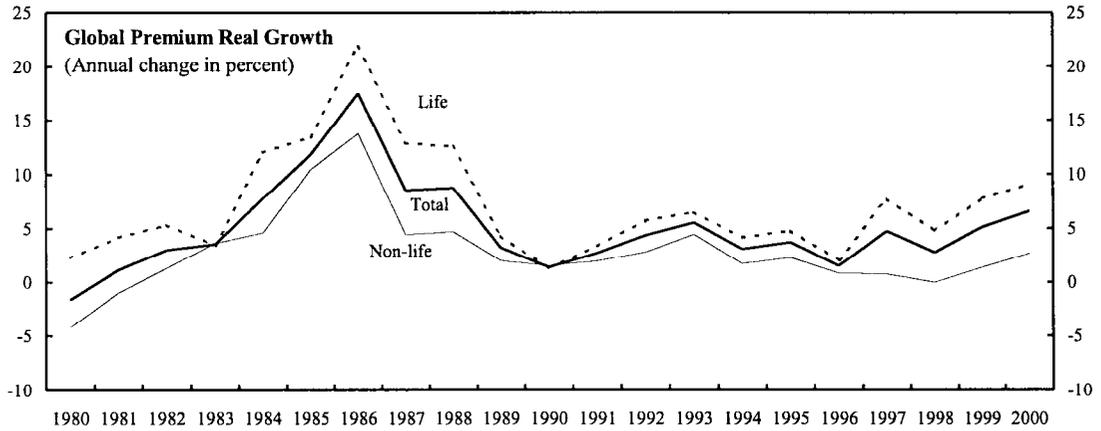


Source: OECD.

¹Selected euro area countries are France, Germany, and Italy.

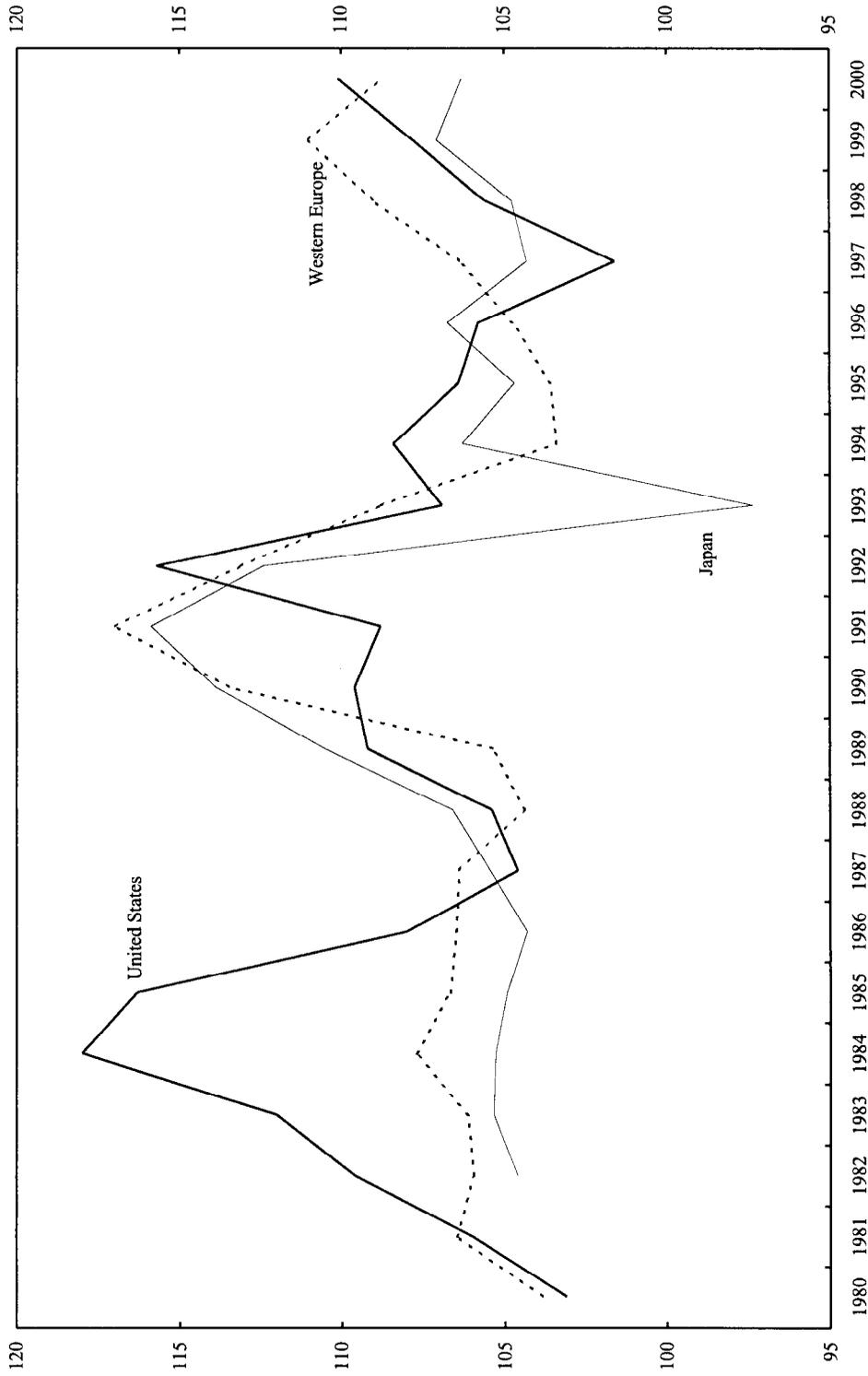
²Bills and bonds issued by residents (R) and non-residents (NR).

Figure 3.8. Global Insurance Industry Results



Source: Swiss Re Economic Research and Consulting.

Figure 3.9. Non-Life Insurance: Combined Ratios in the Industrialised Countries
(In percent)



Source: Swiss Re Economic Research and Consulting.

Nonlife insurers in these countries made up for underwriting losses, or augmented underwriting returns, through investment. Investment yields ranged from 2.9 percent in Japan (reflecting low government bond yields and declining stock prices) to 9 percent in the United Kingdom, and translated into investment results (expressed as a percent of premiums) ranging from 12.5 percent to 24.6 percent in the respective countries. Net of taxes and other expenses, underwriting and investment results translated into profit margins from 0.8 percent (Italy) to 10.7 percent (United Kingdom), and returns on equity from 2.9 percent (Germany) to 10.1 percent (United Kingdom).

Reaping strong investment returns has been especially important for life insurance companies that have high guaranteed rates of nominal return on existing policies. In the 1980s and early 1990s, insurance companies offered high guaranteed returns on insurance policies, reflecting the ability to earn very strong market returns on asset portfolios, high premium incomes, and in some countries, high minimum rates mandated by regulators. As nominal bond yields sank during in the 1990s amid declining inflation and the euro area convergence process, meeting these guarantees became more challenging. In Japan and Switzerland, government bond yields slid below guaranteed rates on existing policies.

During the 1990s, insurers responded to an environment of lower real premium growth by managing asset portfolios more actively and shifting the asset mix. Between 1990 and 1999, insurers' investments in corporate equities rose from 17 percent to 27 percent in the euro area, from 53 percent to 61 percent in the United Kingdom, and from 10 percent to 31 percent in the United States.⁵ In addition, the development of emerging market and corporate bond markets, including the market for lower-rated credits, offered insurance companies opportunities to raise investment returns. Active asset management together with realized capital gains from rising bond and share prices enabled insurance companies in most countries to earn an investment yield above that of the long-term government bond yield in their home country (see Figure 3.8).

The Recent Shift into Newer Financial Market Activities

In the 1990s, periods of soft premiums and low bond yields also spurred innovations that fostered convergence between insurance and capital markets. Insurers divested less profitable insurance risks in the form of catastrophic risk ("Cat") bonds—bonds with payoffs linked to a catastrophic event. Reinsurers have also diversified their insurance business by developing the profitable "alternative risk transfer" (ART) market for customized reinsurance

⁵ Some of the shift in equity allocations may reflect stock price changes. In Japan, for example, the share of insurers' assets allocated to shares shrank from 22 to 15 percent.

products that bridge the gap between traditional insurance and banking products.⁶ Examples include contingent capital, which gives an insurance company the option to replenish its capital if it is adversely affected by a natural catastrophe; captive insurance, which permits large conglomerates to insure themselves by pooling risks in a separate entity; and finite reinsurance, which is a form of self-insurance that permits a policy holder to spread an insurance loss over a predetermined period of time.

Insurance companies also sought to diversify their large investment portfolios and funding sources. For example, they became more important participants in credit derivatives markets, helping banks to hedge and diversify their credit exposures.⁷ Market participants have also characterized them as more active buyers of collateralized debt obligations (CDOs), private equity, funds of hedge funds, and reverse convertible securities. On the funding side, U.S. life insurance companies have issued funding arrangements (FAs) and guaranteed investment contracts (GICs), issuance of which grew rapidly to about \$40 to \$50 billion (JP Morgan, 2001). According to market participants, funds were generally invested in higher-yielding securities with similar maturities to the FA/GIC, generating a positive spread.

In 2001, the deterioration in credit and equity markets and huge claims associated with September 11 adversely affected insurers' profits and caused the failure of a few weaker, lower-tier institutions. Subsequently, an improved appreciation of the risks in newer activities, and a firming of insurance premiums amid an increase in demand for insurance, led a number of insurance companies to re-evaluate their capital markets activities. In addition, market participants suggest that a number of less-active firms withdrew from activities such as ART and credit derivatives. As a consequence, these newer activities are seen as concentrated among a few, large players. Over time, higher premiums may heighten competition in the insurance business, putting downward pressure on premiums and leading to a renewed interest in newer, more profitable activities.

Financial Efficiency and Stability Questions Raised by Insurers' Financial Activities

As noted above, much less is known about the environment in which insurance and reinsurance companies operate, and about important aspects of the regulatory framework. The remainder of this chapter examines five forward-looking financial stability issues with the

⁶ Major reinsurers characterize rates of return on equity in the ART business as in the range of 20 to 25 percent, well above typical rates for traditional reinsurance business.

⁷ See IMF (2002), Chapter III. It has frequently been suggested that differences in the regulatory treatment of financial risks between banks and insurers may have created opportunities for regulatory arbitrage, but the Joint Forum cautions that "comparisons of individual elements of the different capital frameworks are potentially inappropriate and misleading" (Joint Forum 2001, p. 5).

objective of understanding the challenges that lie ahead for the insurance and reinsurance industries and more generally for the international financial community: the balance of official oversight and market discipline; information about financial markets activities; the legal frameworks for insurance and financial markets; leverage in individual firms and the overall industry; and systemic implications, if any, of insurance- and reinsurance-company instability.

Official Oversight and Market Discipline: Is the Balance Still Right?

As with commercial and investment banking, the soundness of insurance and reinsurance companies and the financial stability of these industries rely on both official oversight and private market discipline. The regulatory and supervisory framework for insurance is primarily oriented toward policyholder protection, by ensuring that reserves and capital are adequate, and investments are relatively safe and liquid, so that insurers can pay claims and other cash flows to policyholders on a timely basis. Insurers usually face restrictions on the concentration of balance-sheet investments in asset classes such as fixed income, equity, and real estate.⁸ Regulation of off-balance-sheet instruments ranges from broad guidelines to outright prohibition of derivatives transactions that do not directly hedge risks associated with insurance business.⁹

Reflecting its policyholder protection orientation and the fact that insurers are not deposit-taking institutions, official oversight of the insurance industry in many jurisdictions is less focused on financial market risks compared with the official oversight of commercial banks. For example, EU capital requirements exclusively reflect the volume of insurance business. In Australia, Canada, Japan, and the United States the regimes include capital charges for risks on the asset side of the balance sheet, but questions nonetheless remain about whether capital fully reflects the underlying risks.¹⁰ The major Australian insurer HIH filed for liquidation in March 2001, but its administrator reported that it was insolvent as early as June 2000 and possibly earlier. In Japan, there are questions about the quality of capital, which may include deferred tax credits and one year's future income, and the adequacy of risk weights for equity and other exposures.

⁸ See EU Directives 92/49/EEC and 92/96/EEC, Articles 21-22.

⁹ For example, relevant EU Directives provide that derivatives may be used to hedge risks or "facilitate efficient portfolio management," whereas the German regulatory authority publishes a list of permitted derivatives instruments and restricts how they may be used.

¹⁰ In 2001, the U.K. Financial Services Authority proposed the introduction of more flexible prudential standards for insurance companies, along the conceptual lines of the Basel Capital Accord's three-pillar approach (Davies, 2001).

Reinsurance regulation is less uniform across countries than insurance regulation. In some countries—including Denmark, Finland, Portugal, the United Kingdom, and the United States—reinsurers face regulations similar to those applied to primary insurers; in others they are unsupervised. Many reinsurers are located in offshore centers where they face particularly light regulation and supervision, reflecting a view that the wholesale participants in the reinsurance market are more sophisticated and well-informed than the retail participants in the primary insurance market, and therefore are better able to assess the risks of their counterparties. Nevertheless, the limited regulation of reinsurers in some jurisdictions has raised concerns that reinsurance regulation may need strengthening, and that reinsurance arrangements may reduce the transparency of insurance company accounts and/or transfer less risk than is apparent.¹¹

Supervisory frameworks for insurers and reinsurers have been under active discussion in the official community. The Joint Forum of banking, securities and insurance supervisors has underscored key differences in risk management practices and regulatory capital requirements across the three sectors (Joint Forum, 2001a and b). The International Association of Insurance Supervisors (IAIS) “Principles on Capital Adequacy and Solvency” recommend that capital adequacy and solvency regimes should be sensitive to risks in investments and off-balance-sheet exposures. The IAIS expects to have principles for the supervision of reinsurance companies ready for members’ approval at the 2002 Annual Meeting. The 2002 EU “Solvency I” Directives improved solvency requirements, increased supervisors’ powers for early intervention, and allowed member states to put in place more stringent solvency requirements. An ongoing “Solvency II” project will consider issues including asset-liability matching, treatment of reinsurance cover, accounting and actuarial policies, and “double gearing” within financial conglomerates. In addition, observance of insurance core principles in IMF member countries are assessed under the IMF/World Bank Financial Sector Assessment Program (FSAP) (see IMF and World Bank, 2001).

Because official oversight is oriented more toward policyholder protection than managing financial market risks, the soundness of insurers and reinsurers relies heavily on market discipline. For example, credit rating agencies inform policyholders and creditors about insurers’ financial strength and insurers strive for high ratings to maintain investors’ and policyholders’ confidence. In addition, risk managers at some banks partly rely on credit ratings in evaluating their counterparty risk exposures to insurers and the risks in financial products sold by insurers. Finally, counterparties increasingly use Standard and Poor’s assessments of risk-based capital that are based on its proprietary capital adequacy model.

¹¹ IAIS (2000), p. 4; and European Commission (2002a). IAIS (2002) discusses supervisory standards for evaluation of reinsurance cover. The Chairman of the U.K. Financial Services Authority recently remarked that two collapsed U.K. insurance companies had “financial reinsurance treaties, of doubtful value, with unregulated reinsurers”(Davies (2002)).

Reflecting these considerations, market participants—and some officials—see the credit rating agencies as the virtual defacto regulators for insurers and reinsurers.¹² Ratings agencies are uncomfortable with this perception and role. Seasoned analysts see insurance companies as opaque and complex, and find it difficult to fully evaluate insurers' financial market activities and assess whether the risks are well managed. Similarly, some counterparty institutions of insurers and reinsurers question whether ratings fully reflect the potential counterparty risks. These institutions have further developed their internal credit analysis of their exposures to insurers and reinsurers, and tightened counterparty risk management vis-à-vis insurers, including by taking more collateral.

Is Disclosure and Transparency Adequate?

Less information seems to be available—to officials and private financial stakeholders—on the market activities of insurance companies compared with the activities of commercial and investment banks, particularly in four areas.

First, there is limited official data to assess whether capital adequately supports insurers' financial risks. Regulatory reports typically contain limited information on risks in the asset side of the balance sheet and on off-balance-sheet activities in the derivatives markets. In addition, features of accounting standards, such as limited application of mark-to-market or fair-value accounting to liabilities and the opacity of actuarial assumptions underlying valuations, may reduce the usefulness of reported data.

Second, relatively little is known about whether insurance companies' management of market and credit risks has kept pace with their growing involvement in the markets. Although some major insurers have sophisticated financial modeling systems, market participants, credit rating agencies, and officials have raised questions about the effectiveness of some insurers' and reinsurers' internal risk management and controls for managing their asset-market activities as well as the market risks (mostly interest-rate risk) embedded in their liabilities.¹³ For example, life insurers have relied on careful analysis of mortality probabilities, based on detailed and lengthy panel data, in pricing insurance premiums.

¹² For example, IAIS (2000, p. 51) refers to rating agencies as “private market supervisors.” IAIS (2002, p. 3) notes that “reinsurers in some jurisdictions are directly supervised; other jurisdictions rely on rating agencies in assessing the security of a reinsurer.” European Commission (2002, Chapter 9) discusses the rating agencies' role in the market disciplining mechanism for insurance companies.

¹³ The IAIS recently noted that “it is questionable whether insurance undertakings—and the insurance supervisors—still have adequate insight into the professionalism and appropriateness of the reinsurance companies, and in the risk exposure policy of globally active reinsurance companies.” (IAIS, 2001, p. 4).

Because mortality risk is relatively stable over time, profit and loss flows on portfolios of life insurance contracts have been fairly predictable. Market participants suggest that some insurers have tried to adapt the actuarial approach to managing the risks in their financial activities. This strategy is seen as having drawbacks, particularly for credit investments where data are lacking and where default probabilities can change sharply and unpredictably with economic and financial developments. These insurers have reportedly since bolstered their credit risk analysis to bring it closer to the standards attained by banks, but the actual extent of progress is unknown.¹⁴

Third, regulatory and shareholder reports do not consistently disclose the size of or amount at risk in off-balance-sheet positions, or the extent to which derivatives are used for hedging versus yield enhancement. The only aggregate information on insurers' involvement in over the counter (OTC) derivatives appears to be the survey figures compiled by the British Bankers Association on the credit derivatives market.

Fourth, the migration of financial risks between insurance companies and other financial institutions makes it more challenging to track the distribution of risks in financial systems.¹⁵ This raises questions about the extent of their participation in segments such as CDOs and asset-backed commercial paper. There are also questions about the extent to which financial institutions have used financial insurance contracts, particularly in place of derivatives contracts, to hedge financial risks.

How Well Understood are the Legal Risks In Financial Insurance Contracts?

Financial insurance contracts between insurance companies and the internationally active commercial and investment banks have given rise to some high-profile legal disputes. For example, in the "Hollywood Funding" transactions, structured notes issued to finance a number of films to be made by Flashpoint Ltd. included credit enhancements in the form of insurance policies written by Lexington Insurance, a subsidiary of American International Group. Bondholders evidently understood the credit enhancements to be in the form of credit guarantees, which require the insurer to pay the bondholders upon default. Lexington has argued that the contracts allowed it to refuse to pay if a specified number of films were not produced, and also allowed it to dispute or investigate claims prior to paying. In the event, Flashpoint defaulted before the specified number of films was made, and Lexington asserted a right to investigate the claim and delay payment. The matter is still under dispute.

¹⁴ See FSA (2002, p. 31). European Commission (2002, p. 53) suggests that "asset risk...is often more significant in the risk profile than many insurers believe."

¹⁵ International Monetary Fund (2002), Chapter III, suggested that the activities of nontraditional investors in credit risk transfer markets might distort prices in credit markets.

In another high-profile case, JP Morgan and Enron were counterparties in forward contracts involving physical delivery of natural gas and oil to JP Morgan. JP Morgan obtained surety bonds from insurance companies to mitigate the risk that Enron would fail to deliver.¹⁶ When Enron filed for bankruptcy protection, JP Morgan sought payment of some \$1 billion on these bonds from the insurers. The insurers refused to pay on the grounds that the counterparties never intended to settle the forward contracts with physical delivery, and claimed that the contracts were a front to obtain the surety bonds as collateral against what JP Morgan and Enron intended as loans from JP Morgan to Enron. JP Morgan allegedly used the surety bonds instead of credit derivatives because the bonds cost much less—perhaps 90 percent less—than credit default swaps.¹⁷ A trial to determine whether the insurance consortium must pay has been set for December 2, 2002.

These two disputes illustrate the key differences in the legal and operational frameworks underlying insurance and financial contracts. For example, under U.K. law, insurers can delay payment by invoking a “material disclosure” provision to claim that their (nonlife) financial insurance counterparty withheld material information about the underlying risk. By contrast, no such provision applies to OTC derivatives documented under International Swaps and Derivatives Association (ISDA) contracts. In addition, ISDA contracts require immediate payment, whereas insurance contracts may pay off over a period of years, particularly if insurers exercise their right to dispute the claim.

Reflecting these disputes, some of the major global banks no longer use insurance instruments to manage financial risks and instead use ISDA derivatives contracts, particularly when dealing with insurers. Others have become highly selective in choosing insurance transactions and counterparties that have a track record of timely payment. In addition, some London market participants now craft contracts to limit the use of “material disclosure” provisions. One major rating agency now examines “willingness to pay” in rating insurance policies that are used to provide credit enhancements and/or financial guarantees. Notwithstanding this progress, the understanding and management of these risks may need to evolve further in the period ahead.

Leverage: Does The Consolidated Insurance And Reinsurance Sector Need More Capital?

At first glance, balance sheet information suggests that insurance companies are typically overcapitalized to a much larger extent than commercial banks. Major insurers’

¹⁶ A surety bond is a contract issued by the surety guaranteeing that he will perform certain acts promised by another or pay a stipulated sum, up to a limit, in lieu of performance should the principal fail to perform. See IMF (2002).

¹⁷ “Enron Fallout: Why Insurers Fail Banks,” (2002).

capital ratios typically exceed the regulatory minimum by two to four times, compared with approximately one to two times for banks.¹⁸ A closer look suggests that insurers hold excess capital in part to cover financial risks that are not covered in their regulatory requirements. As noted above, capital requirements in some countries primarily reflect insurance risks—the liability side of the balance sheet—rather than investment risks on the asset side. Rating agencies and counterparties therefore look for capital ratios that are well above minimum standards. They see insurers as becoming more sensitive to risk-based capital allocation and moving to upgrade their internal capital management systems.

Despite this progress, questions have been raised about whether some Japanese and European insurance companies are adequately capitalized on a risk-adjusted basis relative to their financial and insurance risks.¹⁹ For example, insurance companies' capital may not fully reflect the substantial implicit options embedded in their balance sheets. On the asset side, some insurance companies hold securities such as convertible bonds that have embedded options. On the liability side, many life insurers have issued guaranteed return policies that amount to call options on interest rates sold to policyholders. Falling interest rates increase both the value of these options to policyholders and the implicit corresponding liability for insurers. For a variety of insurance companies, market returns on safe instruments have fallen below promised rates on existing policies originated earlier. In Japan, guaranteed returns average 4 percent, compared with investment returns of less than 2 percent; in Switzerland, insurers are mandated to offer guaranteed returns of 4 percent on compulsory private “second-pillar” pensions, compared with 10-year bond yields of about 3.6 percent.

There are also broader questions about whether capital in the global insurance/reinsurance industry is sufficient to support prudently the total amount of insurance risk in the global financial system, both presently and in the immediate future as demand for insurance products grows. The global insurance industry experienced significant shocks in 2001. First, total insured losses to the nonlife industry from natural disasters are estimated to have amounted to \$11.5 billion, up from \$7.5 billion in 2000. Second, equity market declines are estimated to have erased some \$20 billion from insurers' balance sheets. Third, Enron's collapse is estimated to result in \$4 billion to \$5 billion in losses on securities and insurance policies. Finally, September 11 is estimated to cost insurers \$50 billion to \$60 billion worldwide. Overall these estimated losses total some \$90 billion, only about \$20 billion to \$30 billion of which has been replaced by fresh inflows of capital (total capital in the insurance industry is estimated at around \$480 billion).²⁰

¹⁸ Joint Forum (2001), p. 53.

¹⁹ See Fukao and JCER (2002) and Procter, Nordhaus, and Hocking (2002).

²⁰ The figure for total capital is from Bureau van Dijk's Insurance Information and Statistics (ISIS) database. There are questions about whether the non-life industry was overcapitalized

(continued...)

Would Insurance Company Failures Be Likely to Cause Systemic Financial Problems?

Extensive discussions with both market participants and officials suggest there is a body of opinion in the international financial community that insurance company insolvencies would be unlikely to have systemic effects on financial stability, for several reasons. First, in most cases the existing combination of market discipline and official oversight is seen as having detected and addressed insurers' financial fragility before it posed significant risks to financial market stability, notwithstanding the fact that some problems have been privately and socially costly. For example, the March 2001 failure of Australian insurer HIH does not seem to have caused significant or persistent volatility in either Australian or global capital markets. This is notwithstanding its international presence, including operations in Europe, Asia, North America, and Latin America; an estimated \$2.8 billion in losses for the firm; and the risk to some two million policyholders and a number of creditors, including globally active banks in Europe and the United States.

Second, liquidity and solvency problems involving insurance companies are generally seen as unlikely to be associated with a rapid liquidation of investment portfolios—including derivatives positions—and market turbulence. In a typical insolvency proceeding, life insurers stop taking on new policies, and their remaining long-term policies—some with maturities of decades—are sold off to other insurers and are allowed to run off over a period of years. Similarly, property and casualty insurers tend to pay off claims slowly, reducing the potential immediate pressure on liquidity. On occasions when a sharp increase in insurance claims potentially puts pressure on liquidity, litigation and/or investigation of claims may delay payment, and increasingly financial counterparts rely on collateral arrangements to manage counterparty and credit risk exposures.

Third, the newer financial market and insurance activities, although evidently rapidly growing, are viewed as relatively small in relation to both insurers' balance sheets and to overall capital markets. Although precise estimates of market size are not available, only about \$13 billion in ART is estimated to have been issued since 1996, and total capital devoted to ART amounts to only about \$20 billion. In addition, the share of CDOs held by insurers is unknown, but even if they held all of the \$500 billion current total, it would constitute a small fraction of the \$10 trillion in financial assets held by insurers in the major countries at the end of 1999. This suggests that a disruption in these newer activities or deterioration in these assets would be unlikely to affect the viability of a major insurer.

during the 1990s, but the large estimated losses relative to new inflows may have motivated the U.K. Financial Service Authority chairman's recent remark that "we believe it important for the long-term health of the [nonlife insurance] industry, and its clients, that there is some strengthening of the industry's capital base" (Davies, 2002).

Some Concluding Thoughts

As the preceding discussion suggests, and despite the limited information, many observers—including many involved with the industry in some meaningful ways—have reached a comfort level with the judgment that the international systemic risks associated with the financial market activities of insurance companies are relatively limited compared to that of the major internationally active banks and commercial banks. Nevertheless, there remain uncertainties about whether insurers hold adequate capital against financial risks, whether their management of market risk has kept pace with their expanding involvement in the market, the size and extent of their off-balance-sheet activities, and the potential migration of financial risks from banking to insurance sectors. In this light, it might be worthwhile asking whether some combination of limited information and regulation and high leverage could make insurers and reinsurers more vulnerable to rapid and turbulent collapses.

An insurance or reinsurance company collapse could affect financial stability through at least two channels. First, it could affect the financial conditions of counterparty commercial banks, investment banks, and other financial institutions through direct credit exposures such as loans and credit lines. Financial stress at a large global insurance or reinsurance company could thereby adversely affect a major financial institution that plays a key role in the major payment and securities settlement systems. It could also adversely affect bank balance sheets if the affected firm were part of a bancassurance conglomerate.²¹ Banks that belong to bancassurance conglomerates may be more vulnerable to market risks than solo banks, because of the more stringent regulatory restrictions that apply to banks' market exposures, and may also be exposed to reputational risk if their insurance arm experiences financial distress. At the same time, few groups exist that include both a large insurance company and a large complex banking operation. Second, the failure of a large reinsurer could adversely affect OTC derivatives counterparties and bank counterparties in credit-risk transfer transactions such as credit derivatives.

Other questions can be raised about the financial stability implications of financial problems of reinsurers. Major insurance companies actively hedge insurance risks with reinsurance companies and thereby have extensive counterparty relationships with reinsurers. In effect, the reinsurance companies are part of the risk management framework and an important line of defense against insurance company illiquidity and insolvency, because they help to pool the insurance risk. Over the years, counterparty exposures may have become more concentrated amid consolidation in the global reinsurance industry. This relationship poses risks: could a systemic insurance event—possibly the confluence of several major catastrophes to which a critical mass of reinsurers are exposed—create the strong potential for financial distress involving a number of reinsurers simultaneously?

²¹ See International Monetary Fund and World Bank (2001), page 5.

If several major reinsurers simultaneously experienced financial stress, this could pose the risk for a large number of major primary insurers that their reinsurance hedges could fail to perform as expected, and leave many primary insurers with unhedged financial and insurance exposures. It is difficult to know how insurers would rebalance their activities and exposures to manage the sudden change in their risk profiles but adjustments could include cutbacks in the provision of insurance, withdrawals from capital markets, and attempts to unwind OTC derivatives hedges and liquidate part of their portfolios in order to return their financial and insurance risk profiles to more desirable positions.

In order to assess these risks and have a more credible understanding of these potential scenarios, the international community would need better information about the financial activities of insurers and reinsurers. Information would be particularly needed on the size, extent, and nature of reinsurance cover, and the potential for a critical mass of major reinsurers to simultaneously experience financial difficulties. In addition, it may be desirable to assess further whether the limited regulation of insurers' and reinsurers' financial activities creates an unlevel "playing field" vis-à-vis banks (Joint Forum, 2001a).

References

- Davies, Howard, 2001, Remarks at the Insurance Institute of London Annual Luncheon, London, March 9.
- , 2002, “Rational Expectations—What Should the Market, and Policyholders, Expect from Insurance Regulation?” The Association of Insurance and Risk Management (AIRMIC) Annual Lecture, London, January 29.
- “Enron Fallout: Why Insurers Fail Banks,” 2002, *The Banker* (London), March, pp. 16–19.
- IMF and World Bank, 2001, “Experience with the Insurance Core Principles Assessments Under the Financial Sector Assessment Program”, prepared by the staffs of the IMF and the World Bank (Washington).
- European Commission, 2002a, “Study into the Methodologies for Prudential Supervision of Reinsurance with a View to the Possible Establishment of an EU Framework,” (Brussels: 31 January).
- European Commission, 2002b, “Study into the Methodologies to Assess the Overall Financial Position of an Insurance Undertaking from the Perspective of Prudential Supervision,” (study performed by KPMG), (Brussels).
- Financial Services Authority, 2002, *Cross-Sector Risk Transfer*, Discussion Paper (London).
- Fitch Ratings, 2001, “Use of Insurance Policies as Credit Enhancements in Structured Finance,” *Structured Finance Special Report*, June 18.
- Fukao, Mitsuhiro, and Japan Center for Economic Research (JCER), eds., 2002, *The Life Insurance Crisis will Continue (Seiho Kiki wa Owaranai, in Japanese)*, Tokyo Keizai Shimposha, Tokyo.
- International Association of Insurance Supervisors (IAIS), 2000, Working Group on Reinsurance, *Reinsurance and Reinsurers: Relevant Issues for Establishing General Supervisory Principles, Standards and Practices* (February).
- International Association of Insurance Supervisors (IAIS), 2002, *Supervisory Standard on the Evaluation of the Reinsurance Cover of Primary Insurers and the Security of their Reinsurers*, (January).
- International Monetary Fund, 2002, *Global Financial Stability Report*, World Economic and Financial Surveys (Washington, March).

Joint Forum, 2001a, *Risk Management Practices and Regulatory Capital, Cross-Sectoral Comparison* (Basel: Bank for International Settlements, November).

——— 2001b, *Core Principles: Cross-Sectoral Comparison* (Basel: Bank for International Settlements, November).

JP Morgan, 2001, *The Insurance Industry and FA/GIC Bonds* (New York), July 17.

Organization for Economic Co-operation and Development, Committee on Financial Markets, 2002, “Risk Transfer Mechanisms,” DAF/CMF(2002)5, Paris, 25 March.

Procter, Rob, Espen Nordhaus, and Jon Hocking, 2002, “Downgrading on Embedded Concerns,” *Morgan Stanley Equity Research: European Insurance* (New York).

Swiss Re, 2001, “Profitability of the Non-Life Insurance Industry: It’s Back-to-Basics Time,” *sigma* No. 5/2001 (Zurich: Swiss Reinsurance Company).

IV. Emerging Equity Markets

The experience with banking crises and the loss of access to international capital markets during the Asia crisis of the late 1990s led some observers to argue that emerging markets should develop local securities markets in order to provide a more stable source of funding for the sovereign and corporates. This chapter is the first of three studies that the *Global Financial Stability Report* will provide on the potential contribution that local securities markets could make to ensuring greater financial system stability. This chapter examines the factors that have influenced the contribution of emerging equity markets to financial sector stability—forthcoming issues will analyze local bond markets, which have played a relatively important role in recent years, and the emergence of derivative markets in selected countries, as well as the main policy issues associated with the development of local securities markets as a complementary source of funding to banks and international capital markets.

One of the key issues in developing local securities markets as a stable source of funding for corporates is the development of an adequate domestic and international investor base. The scale and stability of that investor base will be influenced fundamentally by the nature of the returns and portfolio diversification benefits associated with holding local securities. This chapter therefore analyzes emerging market equities from two perspectives. First, it looks at the performance of this asset class from the perspective of global investors and considers how this performance may affect the scale and volatility of equity-related capital flows. Second, it examines emerging market equities as an alternative source of finance for the corporate sector, and analyzes how equity issuance in emerging markets has fared in relation to bank financing.

Emerging Market Equities as an Asset Class for Foreign Investors

The global investor base for emerging market equities includes dedicated emerging market funds, global or international funds that allocate a portion of their assets to emerging market equities in order to track either a world or regional equity index, and tactical investors, such as hedge funds. While the emerging market allocations of global equity funds are typically small—around 5 percent of total assets—the absolute amounts of these allocations can be sizable in relation to the market capitalization of emerging stock markets; for instance, the emerging market exposure of global equity funds (both dedicated and nondedicated) is estimated to have reached about \$108 billion last year (about the size of total market capitalization in Korea). For tactical investors in emerging markets, the objective is to achieve high absolute returns through market timing, given the high volatility of this asset class. For global equity funds, emerging market equities could provide a diversification play. Adding emerging market equities to portfolios dominated by mature market equities can at times provide a more favorable risk-return profile than investing exclusively in mature market equities, particularly when returns between the two assets are not closely correlated.

The global investor's perspective on emerging market equities is somewhat different from that of the local investor, in part because the alternative investment opportunities facing the two are often rather different. The international investor is typically interested in the foreign currency returns available from investing in emerging market equities, and has access to several other classes of equities as alternatives; dedicated international emerging market funds, in particular, expect to obtain an equity premium on this asset class over longer periods. Local equity investors are mainly interested in local currency returns and risks, and for many of them the assets available for investment are much more restricted than for the global investor. Until recently, for example, retail investors in many emerging markets have had little access to fixed income instruments; the alternatives in practice have involved the decision of whether to place money in a bank, to buy government bonds, or to invest it in stocks. As local fixed income instruments become a more viable asset class in emerging markets in the future, the existence or otherwise of an equity premium that compensates for the additional risk is likely to become an important issue for the investment strategy of local investors.

In any event, the global investor's decision to invest in emerging equities is driven by risk-adjusted returns, and the potential portfolio diversification benefits associated with the extent of the correlation of these returns with the rest of his/her portfolio. In the next sections, the performance of emerging equity markets is reviewed, with a view to inferring how this performance affected the investment behavior of global investors as the asset class matured during the past decade.

Emerging Equity Market Performance

After languishing for a protracted period, equity prices in emerging markets have witnessed a sharp rebound over the last six months. Indeed, the return on the S&P/IFCI Composite,¹ a benchmark dollar based index for emerging market equities, has been about 11 percent in the 12 months to the first quarter of this year, in contrast to a negative return of 10 percent for the S&P 500 and a negative return of 23 percent for the NASDAQ during the same period (Table 4.1).²

¹ For many global investors, the benchmark used to measure emerging equity markets returns is the S&P/IFCI composite index. It is U.S. dollar based, excludes stocks that foreign investors are restricted from buying in emerging markets, and adjusts for float, liquidity and market capitalization.

² Not all investors follow this benchmark and thus performances will vary between individual funds. However, the average performance of 189 funds labeled emerging market funds by Morningstar have not outperformed the S&P/IFCI index over the last 5–10 years.

Table 4.1. Equity and Bond Returns

	2001-2002Q1			1990-1994			1995-2001			1990-2001		
	Returns	Standard Dev	Sharpe ratio	Returns	Standard Dev	Sharpe ratio	Returns	Standard Dev	Sharpe ratio	Returns	Standard Dev	Sharpe ratio
S&P/IFCI Composite ¹	11.13	28.4	0.21	16.02	20.6	0.42	-3.68	26.3	-0.36	4.53	24.2	-0.08
Asia	22.99	33.1	0.54	12.35	24.2	0.21	-9.81	32.7	-0.48	-0.58	29.5	-0.24
EMEA	-4.80	26.7	-0.37	-2.57	35.2	-0.28	1.78	25.0	-0.16	-0.03	29.6	-0.22
Latin America	5.34	28.1	0.01	27.40	29.2	0.69	1.35	31.8	-0.14	12.20	30.9	0.19
MSCIEAFE	-21.93	18.3	-1.47	0.31	19.4	-0.36	1.42	16.0	-0.28	0.95	17.4	-0.32
S&P 500	-9.90	18.3	-0.82	8.34	12.4	0.09	14.77	16.0	0.56	12.09	14.6	0.39
NASDAQ	-23.34	43.2	-0.66	10.06	17.6	0.16	13.62	31.9	0.24	12.13	26.8	0.21
EMBI+ Brady Broad ²	17.14	9.4	1.29	14.43	14.0	0.51	14.84	17.8	0.50	14.69	16.4	0.50
Merill Lynch U.S. High Yield	6.37	10.0	0.13	11.32	6.4	0.63	6.86	6.0	0.16	8.72	6.2	0.36

Sources: Bloomberg L.P.; and Datastream.

¹ Asia: China, India, Indonesia, Korea, Malaysia, Pakistan, The Philippines, Sri Lanka, Taiwan, and Thailand.

EMEA: Czech Republic, Greece, Hungary, Poland, Russia, Slovakia, Turkey, Egypt, Israel, Jordan, Morocco, South Africa, and Zimbabwe.

Latin America: Argentina, Brazil, Chile, Colombia, Mexico, Peru, and Venezuela.

² EMBI+ Brady Broad started in 1991.

The driving force of the recent spurt in emerging market equity prices has been Asia—the IFCI Composite’s Asia index increased by about 23 percent in the year to the first quarter of this year. The Latin America index, in contrast, increased only by about 5 percent, and the EMEA index, which covers emerging markets in Europe and the Middle East, declined by about 5 percent in the same period (Table 4.1). Unlike in past episodes, when emerging market equity prices tended to exhibit a high degree of comovement, particularly within regions, there has been a greater divergence of equity price movements across countries during the recent upturn. Equity prices in Korea, for instance increased by 55 percent in the 12 months to the first quarter of this year, while equity prices in China declined by about 16 percent. This divergence in U.S. dollar returns is apparent in other regions as well—while equity prices in Mexico picked up sharply, Brazil and Argentina have witnessed slumps in stock prices. In the EMEA region, Russian stock prices are up by 57 percent in the last 12 months—making it the best performing emerging equity market in this period;³ Turkey, in contrast, witnessed a 33 percent decline, and Poland a 19 percent decline in stock prices.

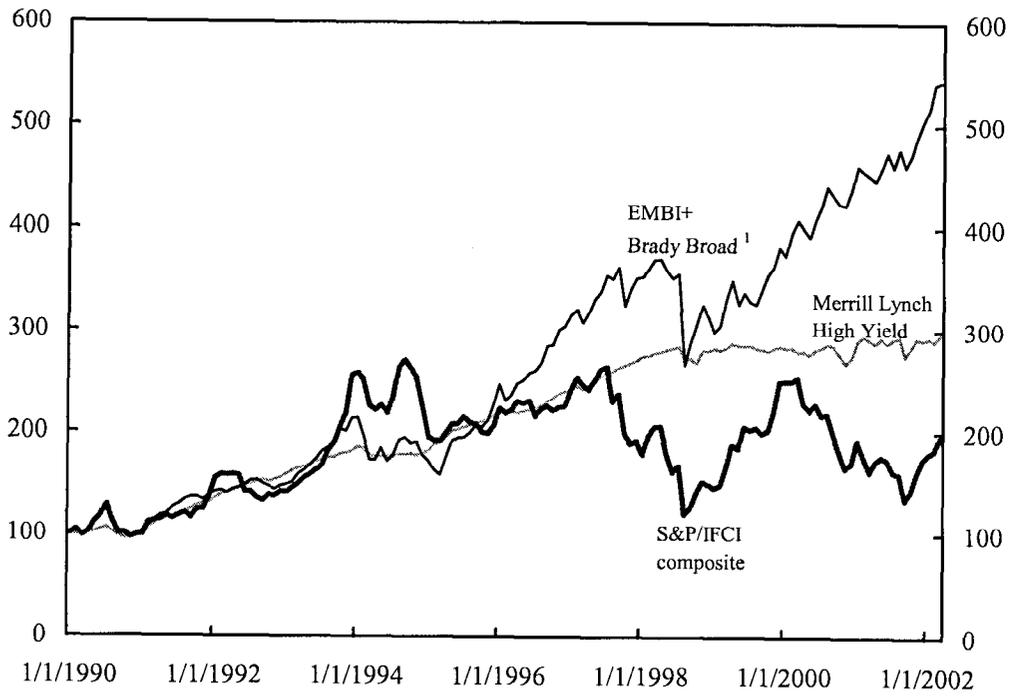
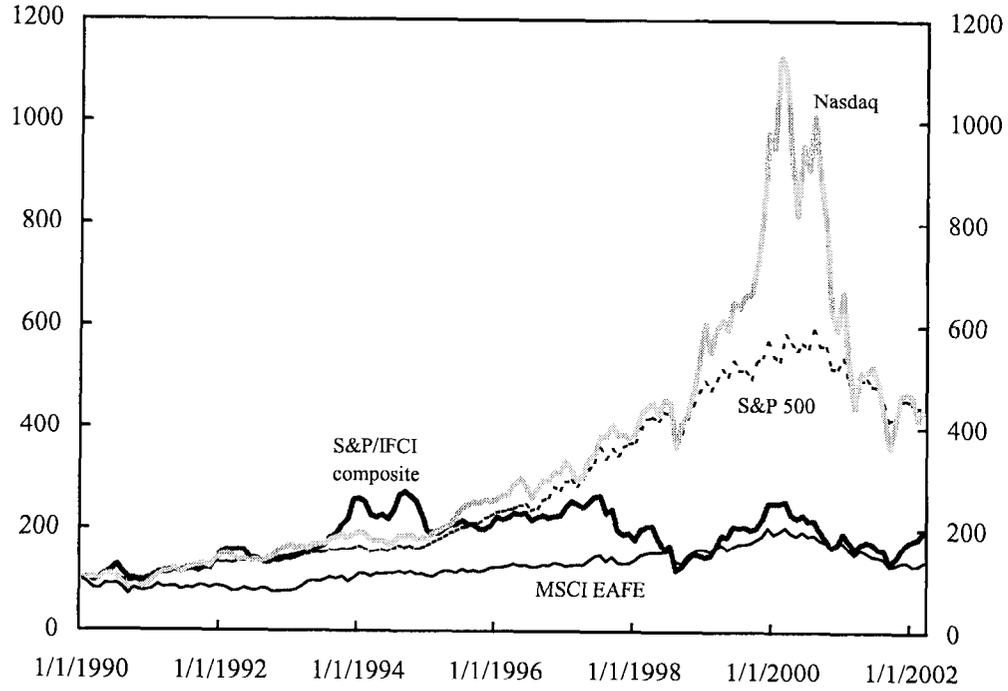
Despite this strong recent performance, emerging equity returns have been relatively poor—both in absolute and relative terms—during the past decade. Between 1990 and 2001, the average annual return on the IFCI Composite was about 4.5 percent—just about one-third of the returns available from investing in the S&P 500 index or the NASDAQ. The returns on the Asia component of the IFCI Composite have, in fact, been in borderline negative territory; Latin America accounts for the bulk of the positive returns that this asset class has provided during the decade. In contrast to emerging market equities, emerging market international bonds have provided high returns. Indeed, investors tracking JP Morgan’s emerging bond index, EMBI+, could have obtained average annual returns of almost 15 percent between 1990 and 2001. Comparisons with other “riskier” asset classes provides much the same story—U.S. high-yield instruments generated twice the return of emerging market equities in this period.

Not only have returns on emerging market equities been low, but volatility has been high, with Sharpe ratios for emerging market equity returns being significantly lower than those for both the S&P 500 and for EMBI+ (Table 4.1). The cumulative impact of the underperformance of emerging market equities over the decade is illustrated starkly in Figure 4.1. A \$100 invested in January 1990 in a fund tracking the IFCI Composite would have grown to a \$180 at the end of the first quarter of this year. The same investment tracking the S&P 500 index, in contrast, would have grown to a \$440. Investors tracking the EMBI+, however, would have been rewarded by asset growth of more than five times over the decade.

³ The RTS dollar index in Russia increased by over 100 percent in this period. The different weighting of individual stocks in the RTS and IFCI Russia indices accounts for the differences in measured returns.

Figure 4.1. Equity and Bond Performances

(January 1990 = 100)



Sources: Bloomberg L.P.; and Standard and Poor's.

¹ Decemeber 1990 = 100

Splitting the last 10 years into the pre- and post-Mexican crisis phases—a benchmark often used to delineate the start of the increasing internationalization of emerging market crises—offers interesting insights. Between 1990 and 1994, the average annual returns on the benchmark emerging market equity index was about 16 percent—twice that of the returns available from tracking the S&P 500, and even somewhat higher than that of EMBI+. The Sharpe ratio for the IFCI Composite was also higher than that for the S&P 500, associated with a relatively lower volatility of returns for emerging market equities in this period. All that changed dramatically during 1995–2001. The returns on the IFCI Composite averaged a negative 3½ percent, in contrast to about 15 percent returns on both the S&P 500 and EMBI+. Volatility of equity returns also increased significantly in emerging markets in the post-Mexican crisis period.

The performance of emerging equity markets during the 1990s stands in sharp contrast to that in mature markets. On the one hand, for advanced economies, the existence of an ex post equity premium—that is, higher returns available over the long run from holding stocks compared to the yields on a risk-free rate, usually a benchmark treasury bond—is generally accepted as a stylized fact; the premium is perceived as the higher compensation required for holding the riskier asset. The debate on the equity premium has essentially centered over whether it is “rational” for the premium to be as high as the realized 6–7 percent for holding stocks rather than bonds. Some have argued that the equity premium in the United States indeed has been historically high, but that the run-up in U.S. stock prices in the latter half of the 1990s, and the accompanying higher valuations and lower implied expected returns, has reduced the equilibrium equity premium, as investors have gradually adapted to the idea of holding stocks as a longer-term asset.⁴ In emerging markets, however, the equity premium has been *negative* over the period 1990–2001—the return on the IFCI Composite being almost 2 percentage points lower on average than that from holding the 10-year U.S. treasury bond.

Portfolio Diversification and Emerging Equity Markets

The negative equity premium on emerging market equities raises the issue of why a global investor ought to have an exposure to this asset class, and of its future viability. As noted above, another determinant of foreign investor interest in emerging market stocks is their potential return enhancing and/or risk reducing function in broader equity portfolios. How much of that has materialized?

⁴ See, for instance, Clement (2001) and Constantinides, Donaldson, and Mehra (2002). For an up-to-date discussion of the equity premium in the mature markets, see Chapter II, Box 2.1.

Figure 4.2 illustrates the historic risk-return trade-offs available for different portfolio combinations of emerging market and U.S. stocks, with a focus on international investors willing to allocate up to 10 percent of their assets to emerging market equities. During the period from January 1990 to March 2002, a portfolio consisting only of emerging market stocks was ex post inefficient, as it returned the lowest possible annual average return (4.7 percent) for the highest possible risk (23.4 percent). In contrast, a portfolio that included only U.S. stocks would have provided a return of about 12 percent, the highest possible portfolio return. Hence, U.S. stocks were clearly more attractive than emerging market stocks from a tactical perspective—that is when the focus is exclusively on returns. Moreover, emerging market stocks did not offer much in the way of diversification benefits in this period, as a 10 percent allocation to emerging markets did little to change portfolio risk, while providing a lower annual return of about 11 percent.

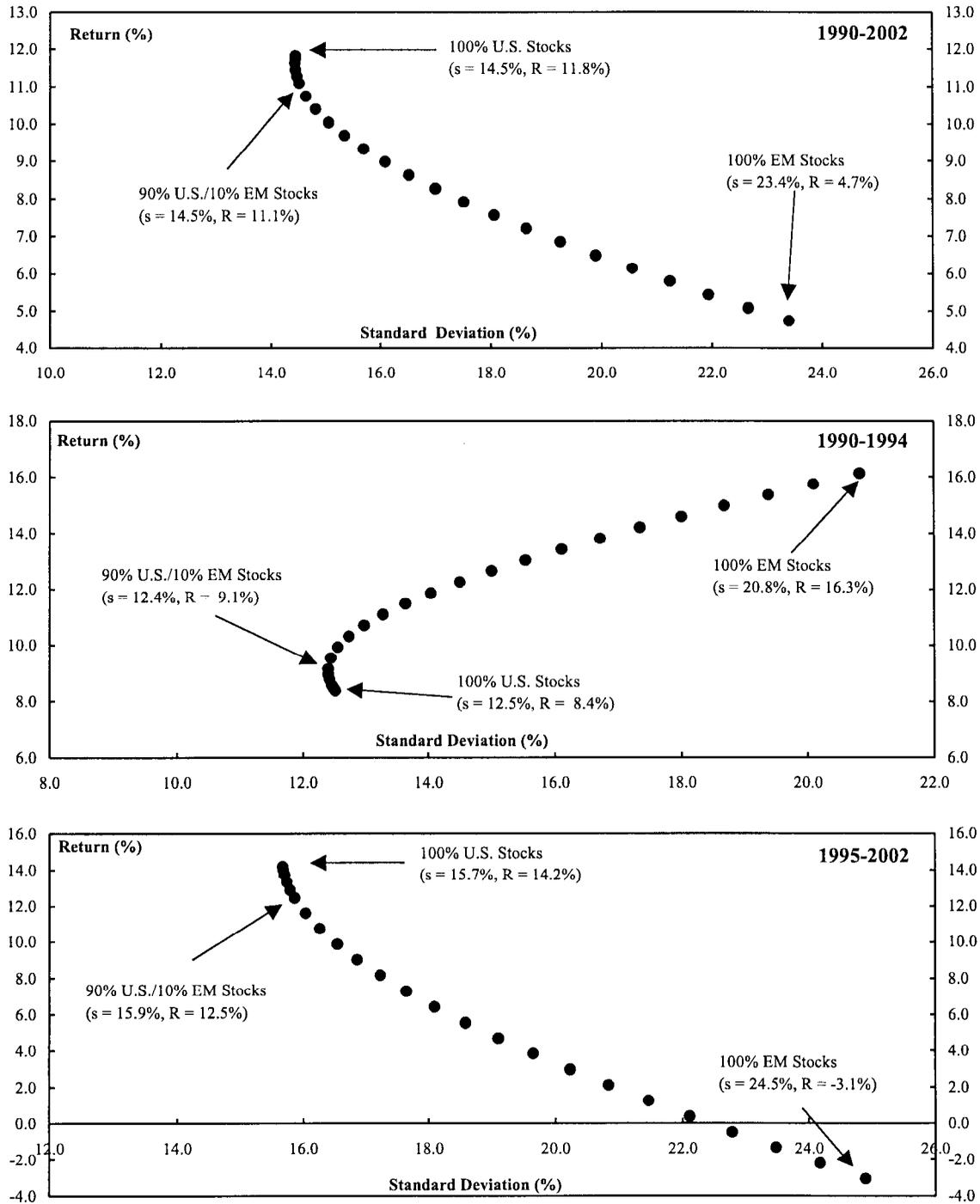
In contrast to the experience of the decade as a whole, the first five years of the 1990s proved rewarding for global funds willing to hold emerging market stocks. A portfolio fully allocated to emerging market stocks not only experienced the highest return (about 16 percent annually), but also offered diversification benefits to international investors. A portfolio of exclusively U.S. stocks was ex post inefficient, returning 8.4 percent for a risk of 12.5 percent, whereas a 10 percent allocation to emerging markets would have provided about a 9 percent annual return for a marginal risk reduction. Such an allocation would have also been the minimum variance portfolio. The post-Mexican crisis period has been a troubling one for emerging market equities. Between 1995 and 2002, a portfolio composed exclusively of emerging market stocks would have been inefficient—negative 3 percent return for the highest portfolio risk (24.5 percent). In contrast, U.S. stocks experienced the highest portfolio return for the lowest risk. Portfolio diversification by inclusion of emerging market stocks offered no benefits to global investors in this period.

Explanatory Factors

The trends in emerging market equity performance noted above, warrants an analysis at two levels. The first is to identify the driving forces of the recent run-up in equity prices in emerging markets. And the second is to arrive at an understanding of why this asset class has underperformed over the longer run. As some of the issues pertaining to the recent run-up in emerging market equity prices have been discussed in previous chapters, the focus of this chapter is primarily on explaining longer term trends. A few key points on recent developments are, however, noted as a precursor to the structural explanation of this asset class' performance.

The recent pick-up in emerging equity markets has been associated with attractive valuations in aggregate for this asset class. The price-earnings ratio for the IFCI Composite was about 15 at the end of last year, compared to about 26 for the S&P 500. Moreover, the price-to-book ratio for emerging market equities is just over 1—about one-third of that on the S&P 500—and dividend yields, about 3 percent—almost three times larger than that for the

Figure 4.2. Risk-Return Tradeoff for EM and U.S. Stocks Portfolios ¹



Sources: Bloomberg; Standard and Poor's; and IMF staff calculations.

¹ IFCI Composite total return index is used for EM stocks and S&P500 total return index for U.S. stocks. Risk (in percent) is calculated as the annualized standard deviation of monthly returns and return (in percent) as the annualized geometric average of monthly returns.

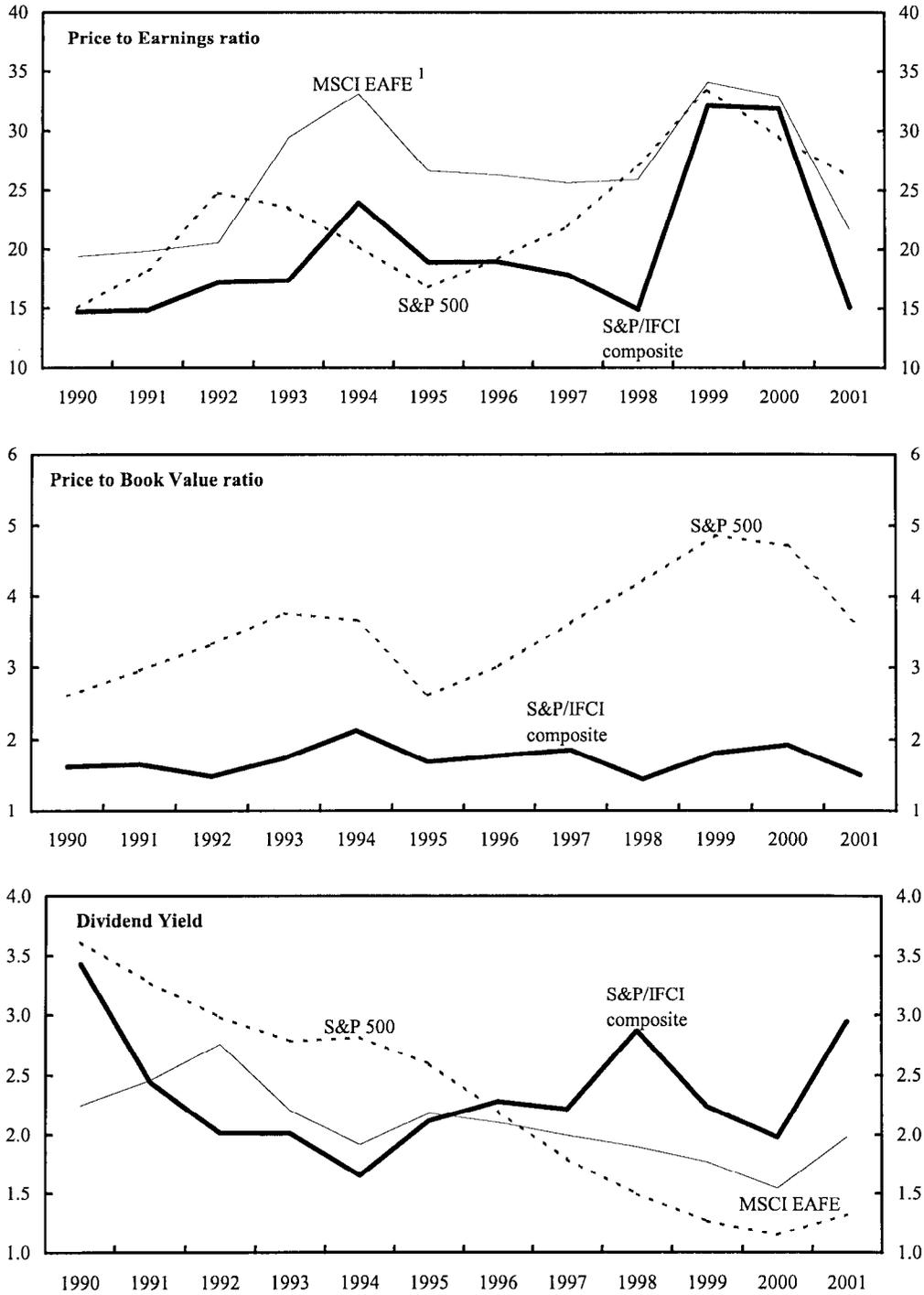
S&P 500 (Figure 4.3). As noted earlier, unlike in the past, when equity prices in different emerging markets tended to move together, there appears to be much greater diversity recently in the equity market performance of the different countries. While the macroeconomic story is no doubt part of the explanation—that is, countries likely to benefit to a greater extent from the expected recovery in the United States, such as Korea, Taiwan Province of China, and Mexico, have had sharper spurts in equity prices than those that are less closely tied in with the U.S. cycle—there also appears to be a microeconomic basis for the recent divergence. Equity markets with attractive fundamentals appear to have done well, while countries with high stock valuations, such as China, have witnessed depressed equity markets, despite having the potential to reap the benefits of a prospective U.S. recovery.

What accounts for the underperformance of this asset class from a longer-term perspective? The general inclination when seeking explanations of stock market weakness is to search for indicators of overvaluation. But unlike Japan, where long-term stock market weakness has been tied to the overvaluation associated with the bubble in equity prices in the late 1980s, valuations do not appear to be the key factor for explaining the longer-term performance of emerging equity markets. Figure 4.3 indicates that while the price/earnings ratio for the IFCI Composite has been high during certain episodes, it has on the whole been significantly lower than that of the S&P 500 for much of 1990–2002. Other valuation indicators such as the price-to-book ratio and dividend yields also do not indicate the picture of a structurally overvalued emerging equity market for the entire period.

Market participants argue that the key factor generating both the poor returns on emerging market equities and the reduced diversification benefits has been the experience with financial crises during the second half of the 1990s. A string of financial crises, starting with Mexico in 1995, Asia in 1997–98, Russia in 1998, Brazil in 1999, and, more recently, in Turkey and Argentina, culminated in prominent currency depreciations and severe contractions in the level of economic activity in emerging markets. The downturn in economic activity and currency depreciations that accompanied these crises severely weakened both the income and balance sheet position of local corporates, especially in situations where the corporate sector had large foreign currency exposures. Moreover, the restructuring of corporate balance sheets at times involved lengthy negotiations and legal complications that further affected corporate performance. Such poor corporate performance was readily reflected in sharp declines in equity prices, over and above the decline in the value of many emerging market currencies.⁵

⁵ For instance, while the Thai baht depreciated by 38 percent over the 12 months to May 1998, the stock market declined by 66 percent in U.S. dollar terms; similarly, the Indonesian rupiah depreciated by 78 percent over that same period, while the dollar value of the stock market fell by 88 percent.

Figure 4.3. Valuation Indicators in Emerging Equity Markets



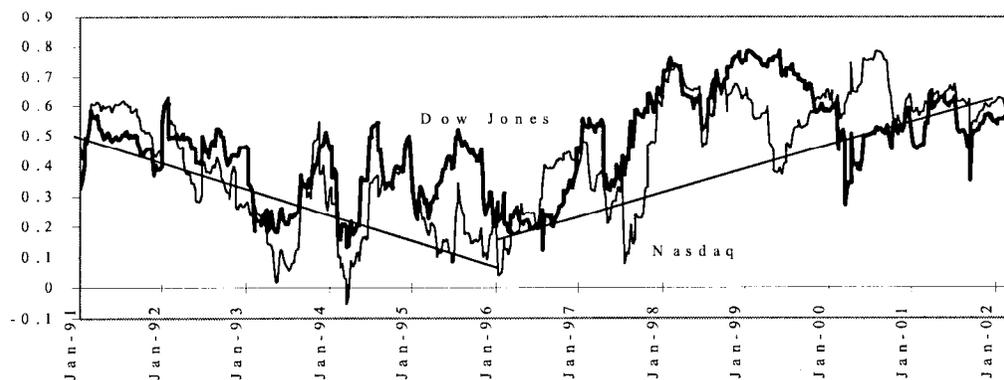
Sources: Bloomberg L.P.; and Standard and Poor's.

¹ EAFE stands for Europe, Australia, and Far East.

The large depreciations associated with these crises also had a strong impact on the returns earned by foreign investors, especially for many emerging equity market funds that tended not to fully hedge their currency exposures. As a result of this experience, foreign investors, whose holdings account for between $\frac{1}{4}$ and $\frac{1}{2}$ of the market capitalization of some of the largest emerging equity markets, appear to have become more averse to currency risks.

As noted earlier, the second half of the 1990s witnessed a decline in the diversification benefits associated with holding emerging market equities. In part, this reflected the higher correlations between the equity returns in the various countries affected by the emerging markets crises. However, this period also saw a trend increase in the correlation between emerging and mature stock returns (Figure 4.4). This higher correlation related in part to the global effects of some mature market crises (such as associated with the failure of Long-Term Capital Management) and the sectoral investment strategies adopted by many global equity investors in connection with the sharp rise and subsequent decline of equity prices in the technology, media, and telecommunications (TMT) sector in the latter part of the 1990s (see Brooks and Catão, 2001).

Figure 4.4. Correlations between Returns in Emerging and U.S. Equity Markets ¹



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

¹ Correlation between weekly returns on emerging and U.S. market indices computed according to the Riskmetric methodology with the exponentially declining weight equal to 0.95.

While crises in emerging and mature markets affected the relative performance of emerging equity market in the first and second halves of the 1990s, there are certain structural weaknesses that influenced equity market performance throughout the decade, although they became more evident to investors during periods of weak performance. In particular, liquidity, asymmetric information, and corporate governance considerations have had a dampening effect on the performance of emerging market equities. In many emerging markets, a few prominent companies constitute the bulk of the market capitalization of country indexes put out by the IFC and MSCI, and quite often the free float constitutes a small fraction of the companies' market capitalization. Firms included in these indices often

tend to be privatized utilities, natural resource and transportation-related companies, or banks, which continue to maintain direct or indirect links to the state and have limited opportunities for future growth. Also, foreign investors worry that adjustments in their holdings of these stocks will lead to large price movements, as the size of the free float is quite small relative to total market capitalization. Generating high returns in emerging equity markets therefore requires going beyond these companies, and picking out-of-index companies with good growth prospects. However, foreign investors do not generally invest in out-of-index stocks either because of liquidity considerations or simply because they are unaware of the potential of these stocks, since international investment banks do not include them in their research coverage.

Issues of transparency and corporate governance have also weighed negatively on emerging market equity performance. In many emerging markets, analysts have concerns about the accuracy and transparency of corporate earnings reports—especially for the case of closely-held companies—and asset managers distrust analysts’ research. Indeed, in a recent survey (Montagu-Pollock, 2001), a large majority of fund managers (76 percent of the sample) responded that they were not happy with the independence of the research they got from investment banks. Poor corporate governance has been identified as one of the causes of the recent Asian financial crises (see, for instance, Claessens, Djankov, and Lang, 1998), with ownership largely concentrated in the hands of families and the state, in part through the use of pyramid structures, deviations from one-share-one-vote rules, cross holdings, and the appointment of managers and directors who are related to the controlling family. Also, the need to attract strategic investors during the privatization processes of the 1990s in some European and Latin American countries was accompanied with weak minority rights that contributed to abuses from controlling shareholders.

The migration of the listings of top-quality emerging market corporates to major mature market financial centers has also taken a toll on the liquidity of emerging equity markets. A common way of raising equity capital in international markets is to issue depository receipts that trade in the United States (American Depository Receipts or ADRs) or in the rest of the world (Global Depository Receipts or GDRs).⁶ In general, companies list on a local exchange initially and then offer part of their equity to international investors through depository receipts. During the 1990s emerging market issuers raised on average \$7 billion a year through ADRs, but issuance levels in recent years have averaged around \$22 billion—though that includes the peak year of 2000. Latin America entities were the most active issuers of ADRs in the early 1990, but more recently the focus has shifted to Asia. In the early 1990s, about 60 percent of international equity issues took the form of ADRs; this has risen to almost 80 percent in the past three years, with Latin American issues being almost exclusively in the form of depository receipt programs. Market participants

⁶ See Box 3.6 in the *International Capital Markets Report* (IMF, 2000) for a more extensive discussion of depository receipts programs.

argue that for some prominent Latin American stocks price discovery is done in New York rather than in the local markets.⁷

Along with ADRs, delisting of stocks from local stock exchanges in emerging markets has also had a negative impact on the asset class. Delisting has been a particularly significant problem in Central Europe, Latin America, and South Africa. In Hungary, for instance, a number of companies have delisted from the local stock exchanges because they have been taken over by multinationals—in 1999, FDI firms accounted for 50 percent of book value added in the nonfinancial business. Similarly, a large number of delistings by foreign companies of their Argentine subsidiaries accounts for a large fraction of the fall in the country's stock exchange market capitalization. In South Africa, some local companies decided to migrate and list abroad to take advantage of the larger investor base and overcome the size limitations of the local market. Delistings have been less of an issue in Asia.

Implications for Capital Flows

The sustained poor performance of local emerging market equities has sharply altered the global investor base for emerging market equities. For example, dedicated emerging market mutual funds have in some cases witnessed declines in assets under management of one-half. The role of crossover investors, such as pension funds and insurance companies, and tactical investors, such as hedge funds, has increased, and their focus is on opportunistic trading. As noted earlier, the robust performance of emerging equity markets in recent months has attracted investor focus on this asset class once again, with a number of global investment banks recommending their clients to go overweight on emerging market equities (see Salomon Smith Barney, 2002, and Goldman Sachs, 2002). As tactical investing in emerging equity markets gains in relative importance, it is likely to accentuate the already volatile net inflows into emerging equity markets (see Chapter II, Figure 2.14). And such a prospective increase in volatility is also likely to have spillover effects into other emerging asset markets, particularly to the currency markets.

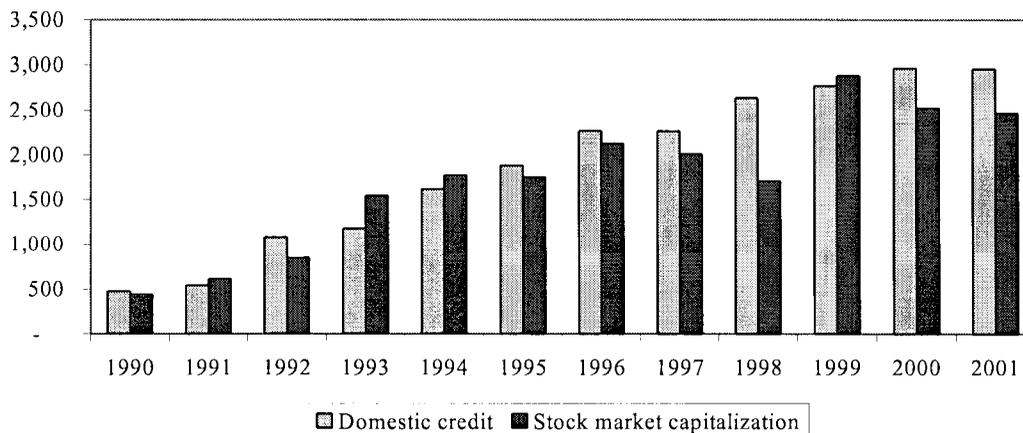
Domestic Equity as an Alternative Source of Funding

In response to the emerging market crises of the late 1990s, a number of analysts and policymakers recommended the development of local securities markets as an alternative source of funding for the corporate sector to ameliorate the impact of a banking or external funding crisis. While the emphasis has been largely on the development of local bond markets, the need to reduce the leverage of several large corporates in Asia, combined with the desirability of having more flexible financial structures in volatile environments, has raised the issue of the stock market as a source of finance.

⁷ Indeed, the typical risk-return profile of ADRs is not very different from that of locally listed stocks because of arbitrage.

The value of stock market capitalization has been approximately equal, on average, to the value of outstanding bank credit over the last decade in emerging markets (Figure 4.5). Although this constitutes only a rough approximation of the pattern of corporate finance in emerging markets, it shows the relative importance of equity financing. There are significant differences, however, across time and regions. Bank credit is much larger than equity market capitalization in Asia, while the opposite applies to Latin America and Central Europe.⁸ The collapse in equity prices in the former region in 1997 and 1998 accounts for a large share of the fall in market capitalization during these years, and the TMT-led rebound in valuations across the whole spectrum of emerging markets in 1999 explains the reverse phenomenon during that year. Outstanding bank credit grows steadily during the decade in Central Europe and Asia (with the exception of Asia only in 1997), while it flattens out in Latin America after 1994.

Figure 4.5. Stock Market Capitalization and Bank Credit
(In billions of U.S. dollars)



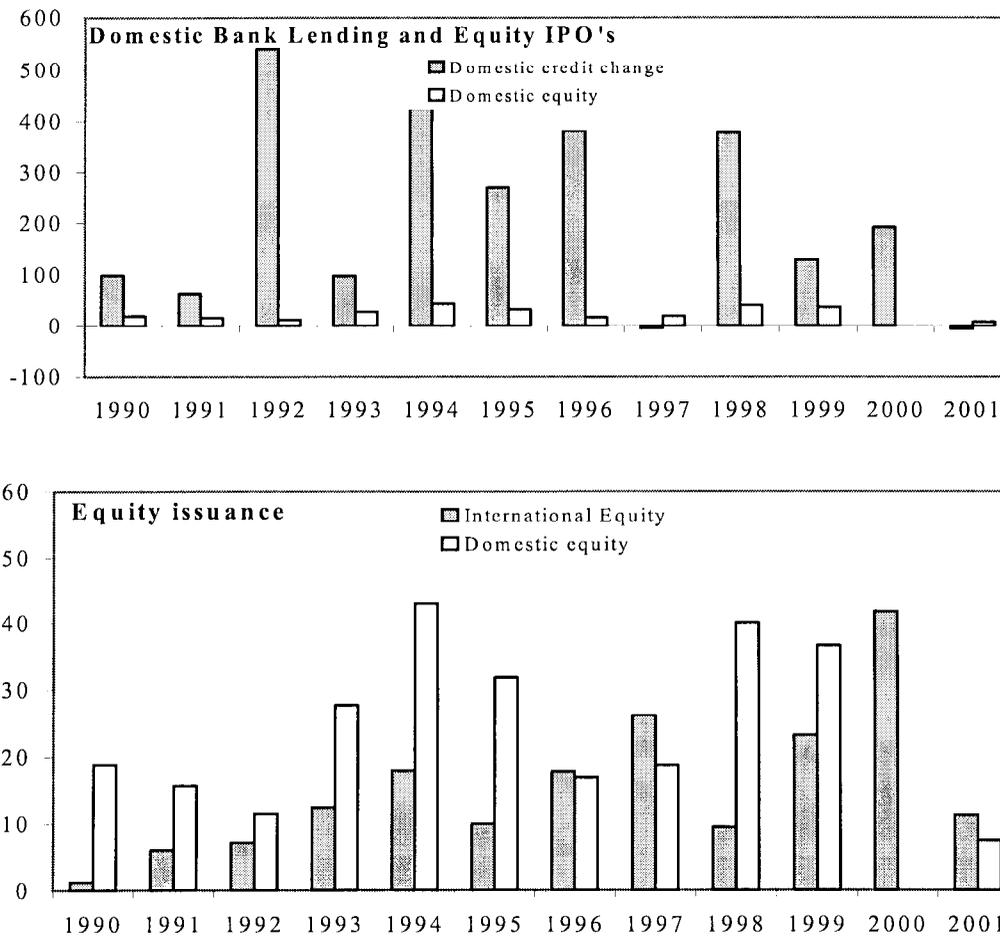
Sources: International Monetary Fund, *International Financial Statistics*; and IMF staff estimates.

In contrast to the similar orders of magnitude in the stocks of debt and equity, bank lending has dominated domestic equity issuance in emerging markets. Between 1990 and 2001, the size of bank flows has been approximately 10 times the size of the equity flows (Figure 4.6). However, volatility has also been substantially greater. For example, an important increase in bank credit of around \$400 billion in 1996 was followed by a contraction of \$5 billion in 1997, while equity issuance was around \$20 billion in both years. This is explained in part by the fact that bank lending is short term and hence needs to be rolled over, while equity is generally speaking a permanent source of finance. Nevertheless,

⁸ This is due, in part, to the extensive privatization processes in these two regions, an issue that will be discussed in more depth in a forthcoming IMF Occasional Paper, *The Role of Local Securities Markets*.

the flow data shows that, while relatively small in absolute size, equity finance was a relatively resilient source of finance during the Asian Crisis. The sharp fall in domestic equity issuance in 2000 and 2001 raises doubts, however, about the long-term prospects of initial public offerings in local markets going forward, an issue that is related to the internationalization of equity markets. As Figure 4.6 (lower panel) shows, international equity issuance has dominated local equity issuance over the last two years.

Figure 4.6. Domestic and International Equity Issuance
(In billions of U.S. dollars)



Sources: International Monetary Fund, *International Financial Statistics*; and IMF staff estimates.

While the internationalization of equity markets has helped top-quality emerging market corporates to raise capital at a lower cost, it may thwart efforts to develop local equity markets as an alternative source of finance. The trend toward the internationalization of equity markets is a result of the dramatic reduction in transaction costs associated with

improvements in information and computation technologies.⁹ The associated reduction in the cost of raising capital in the most advanced exchanges, combined with the integration of capital markets, has made evident the inefficiencies existent in several local emerging equity markets. Several of these markets are reducing listing requirements and other costs associated with initial public offerings, and they are establishing alliances with other exchanges to increase the investor base for local issues. It remains unclear if these local efforts could compensate global trends toward the consolidation of equity market activity in the most efficient financial centers. However, the poor performance of local emerging equity markets during the second half of the 1990s is not necessarily a harbinger of future performance. A more stable macroeconomic environment and improved corporate governance and transparency would nonetheless be key elements in furthering the development of these markets. In this regard, the ADRs and GDR programs of emerging market corporates are also likely to play important roles in helping improve corporate transparency and governance.

Conclusions

Emerging market equities can provide global investors with attractive absolute returns as well as an avenue for diversifying their portfolios. The evidence indicates that investors reaped such benefits in the first half of the 1990s, but that the gains disappeared between 1995 and 2001. This deterioration in the performance of emerging market equities gave rise to tactical investors, whose opportunistic behavior is likely to increase volatility of capital inflows into emerging markets. The underperformance of emerging market equities from a longer-term perspective does not appear to be primarily due to overvaluation, though price/earnings ratios in emerging market equities have been high in some years. Some of the main factors in this underperformance are: (1) a string of financial crises, starting with Mexico in 1994, which has drastically pruned the U.S. dollar returns on emerging market equities; (2) concerns about corporate transparency and governance; and (3) the growing importance of American Depository Receipts (ADRs) and delistings, which has also reduced the universe of liquid stocks in emerging markets and has thinned both the domestic and global investor base. While the stocks of debt and equity are of similar sizes, bank lending has dominated domestic equity issuance in emerging markets. Between 1990–2001, the size of bank lending has been approximately 10 times the size of domestic equity issuance, but the volatility of bank lending has also been substantially greater. Moreover, while relatively small in absolute size, equity finance was a relatively resilient source of finance during the Asian Crisis. The sharp fall in domestic equity issuance in 2000 and 2001 raises doubts, however, on the long-term prospects of initial public offerings in local markets as an alternative financing mechanism going forward, an issue that is largely related to the increasing internationalization of equity markets.

⁹ The trend toward internationalization of equity markets, which includes delistings, ADR issuance, dual listings and other phenomena, is discussed in IMF (2000); the shift of liquidity toward financial centers and consolidation of exchanges is described in IMF (2001).

References

- Brooks, Robin, and Luis Catão, 2001, "The New Economy and Global Stock Returns," IMF Working Paper No. 00/216 (Washington: International Monetary Fund).
- Claessens, Stijn, Simeon Djankov, and Larry H.P. Lang, 1998, "Who Controls East Asian Corporations?," World Bank Policy Research Working Paper, No. 2054 (Washington: World Bank).
- Clement, Douglas, 2001, "The Vanishing Equity Premium," *The Region*, Federal Reserve Bank of Minneapolis (June).
- Constantinides, George, John B. Donaldson, Rajnish Mehra, 2002, "Junior Can't Borrow: A New Perspective of the Equity Premium Puzzle," *Quarterly Journal of Economics*, Vol. 117, (February), pp 269–96.
- Goldman Sachs, 2002, International Economic Analysis, (April 2).
- International Monetary Fund, 2000, *International Capital Markets: Developments, Prospects, and Key Policy Issues*, World Economic and Financial Surveys, (Washington: IMF).
- , 2001, *International Capital Markets: Developments, Prospects, and Key Policy Issues*, World Economic and Financial Surveys, (Washington, August).
- , forthcoming, *The Role of Local Securities Markets*, IMF Occasional Paper (Washington).
- Montagu-Pollock, Matthew, 2001, "Gagged, Pressured and Compromised," *Asiamoney*, (October), pp. 17–21.
- Salomon Smith Barney, 2002, "Equity Strategy," (March 5).