Making Global Markets Safer

The latest stirrings from the International Monetary Fund.

BY GERD HÄUSLER

A key objective of the International Monetary Fund is to increase the benefits that countries can derive from access to an open and deep global financial system. A recent slowdown notwithstanding, the marked increase in capital flows to emerging markets through the 1990s (see Table 1) has increased the importance of reducing vulnerabilities and risks of financial turbulence, as well as the costs of resolving financial crises when they occur. While this objective is shared by various national and international bodies with an interest in the oversight and functioning of the global financial system, it goes to the heart of the IMF's mandate. It is therefore worth asking, how has the nature of recent financial crises affected the work of the Fund?

Financial globalization has brought considerable benefits to national economies and to investors and savers. At the same time, however, in a world economy that is increasingly characterized by integrated capital markets and external openness, the IMF has faced capital account and financial crises that were

Gerd Häusler is Director and Counsellor, International Capital Markets Department, International Monetary Fund.

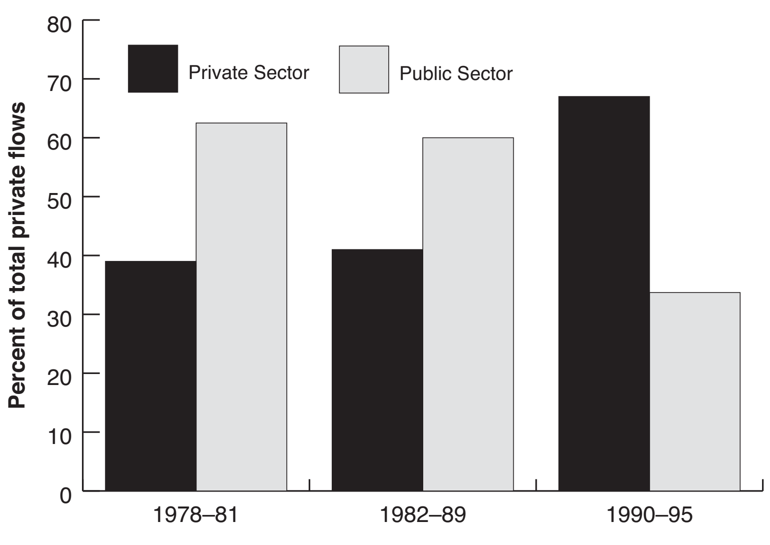
Table 1
Private Capital Flows to Emerging Markets (billions of U.S. dollars)

	Average 1982-89	1990-97	1998-02	1994	1995	1996	1997	1998	1999	2000	2001	2002
Private capital flows, net	14	137	53	152	212	229	102	62	85	29	25	62
Private direct investment	12	72	160	81	98	114	142	154	164	158	172	151
Private portfolio investment	6	57	-3	113	43	90	47	0	34	-4	-43	-3
Other private capital flows	-4	8	-104	-42	71	24	-86	-92	-113	-124	-105	-86
Memorandum items:												
Total capital flows, net	41	166	76	155	238	227	171	132	97	30	40	83
Net official flows	27	29	24	4	27	-2	68	70	12	0	15	21
Change in reserves	-2	-70	-103	-69	-118	-108	-69	-48	-88	-113	-120	-147
Current account	-30	-79	53	-72	-91	-97	-69	-52	34	128	95	61

Source: IMF, World Economic Outlook database.

different from the crises of earlier periods. Think of the Latin American debt crisis in the 1980s; the ERM crisis in the early 1990s; the Mexican crisis in 1994; the Asian crisis in 1997; the Russian crisis in 1998; and the recent turbulence in Turkey and in Latin America. The experience suggests that future crises may well have some or all of the following characteristics:

Figure 1
Sectoral Destination of Private Net Capital Flows



Source: Peter Montiel and E. Fernández-Arias, "The Surge in Capital Inflows to Developing Countries: An Overview," *World Bank Economic Review,* January, 1996.

■ **The private sector as the source of the problem as opposed to the sovereign.** Traditional Fund lending against balance of payments disequilibria typically focused on a "twin imbalance" of an external current account deficit, most commonly driven by a fiscal deficit. However, during the Asian crisis, governments generally did not face large borrowing requirements—indeed many were in surplus—and were not a direct source of financial imbalance. Instead, surges in capital inflows reflected dissaving and rising indebtedness of the private sector (see Figure 1).

■ **Poor sequencing of financial reform by opening capital accounts before adequately strengthening the domestic financial system.** Financial liberalization and open capital accounts, when set against weak regulatory structures, can lead to wrong incentives and create a build-up of macroeconomic vulnerabilities. Indeed, large capital inflows—when intermediated through weak and poorly supervised domestic banks—have created distortions in local asset and credit markets. Foreign borrowing channeled through domestic banking systems, as occurred in Korea, the Philippines, and Thailand, encouraged rapid credit expansion and sharp increases in domestic asset prices (real estate and equities). Incentives to banks and depositors were distorted by implicit or explicit guarantees and weak oversight, and banks lent sizeable amounts to real estate and to marginal corporations, leaving them weak and vulnerable to shocks.

■ **Fixed exchange rates contributing to a build-up in vulnerabilities, and in some cases a shift in liabilities from the private to the public sector.** Whether *de facto* or *de jure,* exchange rate inflexibility prior to recent crises gave the wrong incentives by distorting price signals, contributing further to a build-up in vulnerabilities. Fixed rates made uncovered foreign exchange-denominated borrowing in international markets appear less expensive than borrowing in local currency, since the government seemed to be prepared to guarantee the rate of exchange to domestic currencies. Once exchange rates came under pressure and had to be devalued, and then were left to float, private corporations, especially in Indonesia and Thailand, found themselves suddenly insolvent. Although in many cases banks were hedged on paper, the corporate defaults on domestic dollar-denominated loans left the banks unable to cover their dollar deposits. Ultimately, external overborrowing and currency risk shifted from the corporate sector to banks (which faced loan defaults) and then to the government (sharing in the recapitalization of now-insolvent banks).

■ **Systemic financial crisis.** Managing recent crises involved resolving and stabilizing the domestic banking systems and, in several cases, restructuring corporations. Governments in some cases had to grapple with systemic financial crises, marked by severe disruptions of financial markets and market infrastructure, including the payments system. Restructuring corporations and facilitating debtor-creditor negotiations among banks, corporations, and international lenders became an integral part of Fund programs in Indonesia and elsewhere. As well, in some cases large government debt holdings by domestic financial institutions destabilized the domestic financial system when sovereign debt levels became unsustainable and may have complicated resolving the situation.

It is also the case that several factors have combined to increase the severity of financial crises and their social and economic costs.

First, the speed of adjustment differs between financial and nonfinancial markets, making onset of a capital account-driven crisis much swifter and deeper. For example, while the external current account balance typically adjusts over several quarters, the capital account can adjust almost overnight. This often results in overshooting which magnifies the impact that financial developments have on the real economy. Capital inflows can stop suddenly and even reverse. With open capital accounts, residents may add fuel to the fire by freely switching from holding domestic assets (such as deposits in local banks) to foreign assets (deposits in banks located abroad). For instance, during the Mexican crisis of 1994–95, there was a reversal of capital flows equal to 12 percent of GDP, and equal to 15 percent and 9 percent in Thailand and Korea, respectively, over 1996–97 (see Figure 2). Also troublesome in some cases has been a withdrawal of trade financing, which has curtailed exports and added further to the severity of output contraction and unemployment.

Second, the impact on private domestic and sovereign balance sheets of exchange rate depreciation can turn a liquidity crisis into a solvency crisis. Since external borrowing tends to be in foreign currency while revenues are in local currency, the impact of large exchange rate adjustments can quickly render firms insolvent and sovereign debt burdens unsustainable. Rising interest rates—reflecting both the policy response to stabilize the exchange rate and higher

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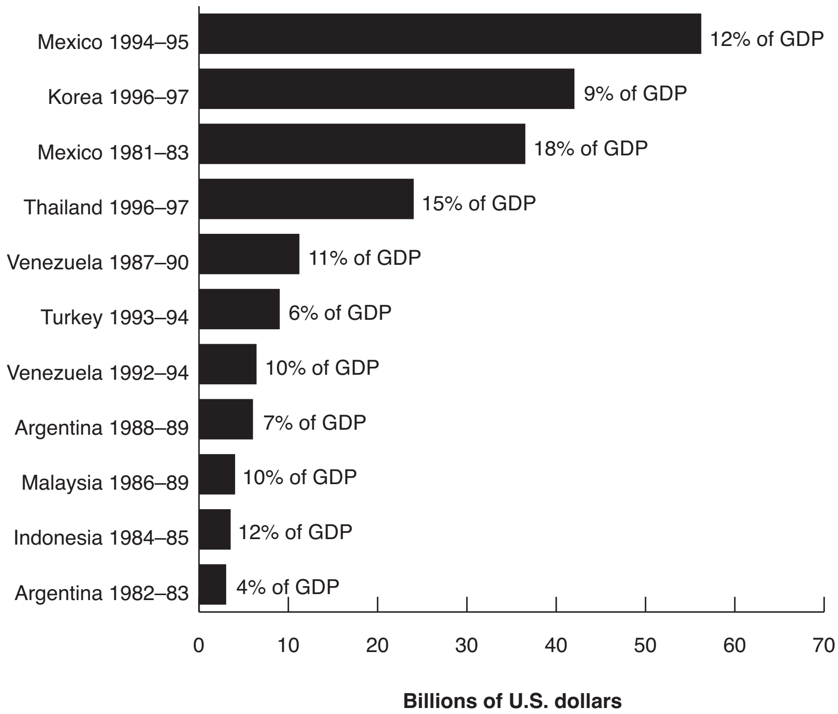
risk premia—exacerbate the problem. This arithmetic adds further to negative investor expectations, causing capital flight and pressure on the exchange rate. If the private sector can no longer finance even trade, then it cannot produce goods or employ workers, raising economic and social burdens and increasing the costs of resolution.

Third, contagion has emerged as a feature of financial crises. The scope for speculative pressures to spill over from one country or market to the next, even though conditions in the affected country were quite different, has been of increased concern to policymakers since the 1992–93 ERM crisis, and especially since the 1994–95 Mexican crisis and the 1997 Asian crisis. Moreover, "herd" behavior has magnified the impact of shocks on global markets, particularly when multiple equilibria—both good and bad outcomes—are possible.

Fourth, some channels for the transmission of financial turbulence to the real economy have become more important and, in some cases, even dominant. In particular, with an increasing portion of wealth held in financial assets, a collapse in financial prices can have broader implications for the economy. As a case in point, the sharp fall in equity prices, related partly to the bursting of the bubble in technology issues, has held back global economic recovery. Meanwhile, the bursting of the bubble in Japanese equities and real estate has fed back into the soundness of financial institutions.

Figure 2
Large Reversals in Net Private Capital Flows
In billions of U.S. dollars and as percentage of GDP



IMPLICATIONS FOR IMF LENDING

The size of Fund lending needed to blunt the impact of a financial crisis and prevent contagion has grown much larger, as the size of recent Fund packages has shown. Indicators of potential financing needs in recent capital account crises range from 11 percent of GDP (Brazil, 1998) to 43 percent (Indonesia, 1997). Fund lending packages were commensurately high—2.3 percent of GDP or $18 billion for Brazil and 5.6 percent of GDP or $11 billion for Turkey (see Table 2).

The IMF has sought new ways to tackle the sources of vulnerability.

At the same time, the magnitude of the Fund's lending has raised concerns that it may contribute to moral hazard, perhaps perpetuating a cycle of crises.

Table 2
Indicators of Potential Financing Needs in Recent Capital Account Crises (as percent of GDP)

	Brazil (1998)	Indonesia (1997)	Korea (1997)	Thailand (1997)	Turkey (2000)
Short-term external debt[1]	10.5	42.7	12.4	31.3	36.7
Deposit base (M2)	26.9	55.6	46.2	84.8	46.8
Gross foreign reserves[2]	5.4	7.7	1.9	5.5	11.2
Memorandum items:					
Fund access					
in percent of GDP[3]	2.3	4.4	4.0	2.2	5.6
in percent of quota[4]	600	490	1,938	505	900
in millions of U.S.$	$18,262	$10,083	$20,990	$3,926	$11,230

1. End-period stocks at residual maturity, original maturity for Korea.
2. End-period stocks; only usable reserves for Korea; net of forwards and swaps for Thailand.
3. U.S. dollar value of GDP for year prior to arrangement.
4. Using quotas existing at the time of program approval (before recent increase in quotas).

Since such lending may support foreign and domestic creditors to varying degrees, concerns have been raised that large programs bail out private creditors, creating moral hazard and, consequently, the conditions for repeated crises. Ways therefore are needed to ensure that private lenders share the loss, and make the resolution of financial crises less disruptive and less costly when they occur. Indeed, in 2000 the ministerial-level International Monetary and Financial Committee explicitly called upon the Fund and the international community to involve the private sector in crisis prevention and resolution. Once the issue of apportioning losses emerged, it became clear that there was a need for better mechanisms to handle cases where countries are insolvent rather than illiquid.

The Fund is assessing more carefully the social and political realities that shape economic policy as part of an effort to enhance "ownership" of its recommended policies.

However, the resolution of indebtedness has become more complicated, owing to the participation of several classes of lenders with differing interests and differing legal rights. At the time of the debt crisis in the early 1980s, private capital movements primarily involved syndicated bank credit. The resolution of the crisis at the end of the decade involved debt and debt-service reduction agreements that resulted in the issuance of tradable collateral-backed Brady bonds. These began the trend to securitization of capital flows to emerging markets, involving multiple lenders with heterogeneous characteristics, who were dispersed geographically. Indeed, small-sized retail investors invested in emerging market debt—for instance, some 350,000 households in Italy are holders of Argentine debt securities. Bringing together diverse lenders and

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reaching common ground for workouts has thereby become much more complicated, and poses a greater challenge for the Fund than in the past.

THE IMF'S RESPONSE TO THESE CHALLENGES

In response to the evolving global environment, the IMF has sought new ways to improve the prevention and management of crises and more specifically to tackle the sources of vulnerability. In this effort, the key ingredient has been the strengthening of "surveillance," the Fund's mandate to oversee members' policies in accordance with Article IV of its charter.

Fund surveillance of global financial markets and of the potential buildup of vulnerabilities in countries is being significantly strengthened.

In mid-2001, the IMF's managing director created the International Capital Markets Department (ICM) to strengthen surveillance of developments in global financial markets. ICM complements and reinforces the Fund's expertise on macroeconomic issues, by enhancing the Fund's understanding of developments, trends, and systemic issues in international capital markets, and by developing analytical and policy approaches for promoting international financial stability. As part of this effort, ICM has launched the *Global Financial Stability Report,* which aims to give an early detection of potential problems, risks, and vulnerabilities in the financial system and to further the dialogue on key issues important for maintaining financial stability.

The Fund is sharpening its tools used in surveillance to detect changes in external circumstances and the implications for macroeconomic vulnerabilities so that preventative steps can be taken earlier. This includes capturing the influences from the global economy on emerging market countries, including through explicit consideration of adverse scenarios. Where there is a risk that a country's access to global financial markets may become difficult or be interrupted, detailed estimates of its external financing needs and prospective sources of funds are assessed. Work on developing models of Early Warning Systems aims to help to detect vulnerabilities and potential for exchange rate crises, thereby giving a flashing light to draw our attention.[1] Such systems are very useful, but they must be supplemented or combined with specific country knowledge to make a meaningful assessment of risks and vulnerabilities.

Detecting fault lines is also aided through the development of a "balance sheet approach" to assessing risks and vulnerabilities. This approach looks at the balance sheets of the corporate, household, and government sectors of the economy to assess risks and vulnerabilities associated with rising external indebtedness, possible exposure to currency mismatches, floating interest rates, and the liquidity risks of short-term debt that were factors in recent crises to a greater or lesser extent.

The Fund, together with the World Bank, has built up its understanding and expertise in the financial un-

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derpinnings of national economies, and has encouraged countries to strengthen their financial institutions and policies.

The main vehicle for this effort is the Financial Sector Assessment Program, or FSAP, which was launched in 1999 and is implemented jointly with the World Bank. The program seeks to identify the strengths and vulnerabilities of a country's financial system; to determine how key sources of risk are being managed; to ascertain the sector's developmental and technical assistance needs; and to help prioritize policy responses. The FSAP draws heavily on peer review and expertise, involving experts from some fifty institutions, including central banks, supervisory agencies, and other institutions and standard-setting bodies.

The magnitude of the Fund's lending has raised concerns that it may contribute to moral hazard.

By assessing financial systems and setting the assessment in a broader macroprudential context as part of the Fund's Article IV consultations, FSAPs have helped to identify the priorities and sequencing for regulatory reform and capacity-building, formulate the immediate priorities to reinforce stability, and specify the medium-term reforms. They have also helped country authorities to focus on operational and supervisory risks, while also allowing them to evaluate their own systems against international benchmarks. Self-assessment is an important component of the program, as an important benefit of the FSAP lies in the significant improvement in financial sector oversight it can engender

Another important element of this program is the development and assessment of the observance of international best practices in key areas of the financial system. These standards have been developed by international standard-setting bodies, including the Bank for International Settlements, the International Organization of Securities Commissions, the International Association of Insurance Supervisors, and the Fund, covering regulation of banks and nonbank financial institutions, payment systems, transparency of monetary and financial policies, and in some cases, accounting and corporate governance. At their heart, these standards are the basic building blocks for sound financial systems on which market confidence is based. They apply equally to mature and emerging markets. In this regard, it is noteworthy that the United Kingdom recently has volunteered to undertake a corporate governance standards assessment of their financial system. This exercise will be coordinated by the World Bank, which does not normally deal with industrial countries.

Since the program started, about half the Fund's membership (92 countries) has participated or agreed to do so in the near future. Work has been completed for four G-20 members (Canada, India, Mexico, and South Africa); is underway or nearing completion in a further five (Brazil, Japan, Korea, Russia, and the United Kingdom) and the major international financial centers of Hong Kong SAR and Singapore; and will take place in the near future for Germany.

An important follow-up to the FSAP is the Fund's continuing efforts to make available technical assistance to countries in areas critical for financial system soundness. These areas include, for example, capacity building in banking system regulation and oversight.

The IMF has become increasingly open and candid about its policies and its regular dialogue on policy with the country authorities; staff reports for Article IV consultations are increasingly published on a voluntary basis. The premise is that greater openness can promote orderly and efficient functioning of financial markets, reduce the likelihood of shocks, and importantly, make policymakers more accountable for their actions. The Fund is assessing more carefully the social and political realities that shape economic policy as part of an effort to enhance "ownership" of its recommended policies.

Financial crises have reinforced the importance of accurate, comprehensive, and timely data for assessment of vulnerabilities. The Fund has been working with member countries to strengthen data provision for the purposes of surveillance, including through the establishment of benchmarks for the provision of certain data that are made available to financial markets and the public at large. The Special Data Dissemination Standard prescribes reporting for reserves and foreign currency liquidity and is being extended to the coverage of external debt (as of April 2002, there were fifty subscribers). The General Data Dissemination System has established a framework for countries to improve their economic statistical systems and standards of sound methodology for the dissemination of data.

Because financial turbulence seems to have become a fact of life, the IMF has helped countries to build better shock absorbers into the system. In particular, the Fund provides advice on the adoption of appropriate exchange rate regimes, better debt and reserve management, efficient and diversified financial sectors, and, to avoid relying exclusively on international capital flows, the development of domestic capital markets.

IMF work in these areas has included the development of guidelines for good practices in public debt management, and in the management of foreign exchange reserves. In addition, the Fund is providing significant amounts of technical assistance in financial policies and on the development of local financial markets. This includes technical assistance in public debt management, as well as areas of monetary and exchange operations and in sequencing liberalization of the capital account.

To help cope with the risks of the global financial environment, the Fund is working to improve its lending facilities to assist member countries at times of financial stress. In this connection, the Fund is reviewing the design of the Contingent Credit Lines facility to make it more effective.

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With the global spread of finance and growth of private capital markets, countries now deal with an increasingly numerous and diverse set of creditors and issue a complex variety of tradable financial instruments, often in multiple jurisdictions. This is a positive development, to the extent that it expands sources of financing and diversifies risks. At the same time, in situations in which a country has difficulty servicing its debt—or worse, when its debt level has become unsustainable—it complicates the task of resolving crises, including achieving broad participation in restructurings that serve the interests of both the debtor and creditors as a group.

The key challenge therefore is to establish a comprehensive framework to crisis resolution in which the parties engage in a predictable and transparent way in order to help restore access to markets as quickly as possible. This is still a work in progress, but some of the key components can be readily identified:

■ **Clearer and more predictable access policy.** The IMF is trying to put in place a clearer framework for judgments on the scale of resources it should be prepared to mobilize in crises—the Fund calls this "access policy." The critical issue in access policy today is to define the conditions under which the Fund would be prepared to consider a financial package above its normal limits and when it would not.

■ **Better judgments on sustainability.** The IMF is setting up a more systematic framework for judgments about sustainability—debt sustainability for the sovereign and external sustainability for the country. This is designed to help strengthen the diagnosis of the problems it confronts in individual cases, to design better economic programs in response, and to provide a framework for triage among countries as they approach the financial precipice.

■ **Improved debt restructuring mechanisms.** The IMF seeks a process that would lead to a more predictable and orderly debt restructuring. The current process for debt restructuring can be prolonged and unpredictable, and can impose undue costs in terms of economic dislocation for debtors and loss-of-asset value for creditors. The Fund is working with national governments, the international community, and the private sector to advance work along two parallel lines to resolve collective action problems while maintaining appropriate incentives for all participants:

- **A contractual approach**—the use of collective action clauses (CACs) in bond contracts by pursuing ways to strengthen incentives for the use of CACs and the development of model clauses that could gain wider acceptance; and

- **A statutory approach**—the Fund is examining the legal, institutional, and procedural proposals that in cases of unsustainable debt would enable a sovereign debtor and super-majority of its creditors to reach an orderly agreement binding all creditors—the Sovereign Debt Restructuring Mechanism.

FINANCIAL MARKET VOLATILITY AND ITS CHALLENGES

It is reasonable to conjecture that the trend toward growing volumes of gross flows, volatility, and swings in risk appetite that create turbulence in international markets will continue into the foreseeable future. Some of the main factors that appear to be driving it—such as ongoing innovations in financial instruments, products, and institutions, intense competition in the financial sector, and continued growth and sophistication of the international investor base—show no signs of dissipating.

In this view, and to use a metaphor, so far we have accepted the ocean and its tides as being subject to uncontrollable forces of nature, and have sought to strengthen the ships that sail in rough waters, and build better hurricane warning systems, safer harbors, and better rescue procedures for when disasters occur. But some have wondered whether anything can be done to reduce the size of the swells of waves and the amplitude of the tides—that is, to curb sometimes-erratic shifts between "irrational exuberance" and undue risk aversion, without hampering market mechanisms and the benefits they bring. National authorities and international fora concerned with financial system stability, as well as the IMF, are studying the issues highlighted below:

■ **Seeking ways to bolster the market's self-correcting mechanisms** by strengthening market discipline is an important avenue. In particular, greater transparency and disclosure and more sound financial judgments create stronger conditions for market discipline. As to transparency, significant progress has been made in recent years, particularly in the banking sectors. However, other financial intermediaries that are now increasingly active in financial markets, including insurance, reinsurance and pension funds, have lagged behind others. Recent corporate scandals have clearly been a source of turbulence and loss of confidence and have exposed weaknesses in the market's foundations. Structural reforms are needed in the areas of board independence, audit and remuneration committee independence, accountability regimes for CEOs and CFOs, accounting and audit standards, disclosure standards and practices, and enforcement standards to rebuild investor confidence. As well, we may need more focus on strengthening incentives for market participants themselves to produce more rigorous and probing financial assessments of risks and returns. Finally, bolstering incentives for shareholders and managers to focus on more medium-term goals and less on short-term gains would strengthen market integrity, as well as help curb excessive volatility.

■ **Understanding better and responding to the conditions underlying asset-price bubbles.** Bubbles are nothing new: history is full of examples going back centuries. Recent examples include the inflation and then deflation in Japan's equity and real estate markets in the 1980s and 1990s as well as equity markets in many countries over the past few years, most notably in the technology, media, and telecommunications sectors. Assessing the conditions under which price bubbles develop, including formation of market expectations, the role of capital flows and the stance of monetary and regulatory policies, is an important area of study. What policies might be appropriate to respond to such situations is an open and lively debate in both academic and public policy circles.

■ **Increasing awareness of the procyclical repercussions of financial regulation and accounting rules.** Regulation can, in some circumstances, accentuate a tightening of credit conditions during an economic downturn, as higher provisioning may be required of banks as credit quality deteriorates which, in turn, may potentially extend and deepen the credit cycle. The widening application of mark-to-market valuations has meant that many financial institutions and investors are less patient, and may add to market volatility, for example through stop-loss selling. Fair-value accounting rules going forward could have significant implications for the way in which asset prices respond to shocks.

However, trade-offs arise and need to be carefully considered—measures and responses that aim to reduce volatility but impose costs on the efficiency of allocating financial resources or the functioning of markets are best avoided. There are no easy answers or quick fixes to address the above sources of potential volatility. In the meantime, therefore, it is important for efforts to continue to strengthen the "ships." ◆

NOTES

The views presented are those of the author and do not necessarily reflect the views of the Executive Board or of the IMF.

1. See "Early Warning System Models: The Next Steps Forward," Chapter IV of the *Global Financial Stability Report,* March 2002. World Economic and Financial Surveys, International Monetary Fund.