VI
Summary and Conclusions

The last year has been one of extraordinary turbulence in international financial markets, as spillovers from the crisis that began in Asia in 1997 threatened to engulf the advanced countries in the aftermath of Russia's unilateral debt restructuring and the problems at LTCM. As a result of timely action by a number of central banks and the international community, a full-blown global crisis was avoided, and greater stability has returned to international financial markets in recent months. Nevertheless, a number of vulnerabilities remain in both the advanced and emerging market countries, and capital flows to the emerging markets remain well below their levels a few years ago.

The main immediate risks in the outlook are related to uncertainty about the extent to which the ongoing global reappraisal of risk—and the associated deleveraging—has run its course. In the larger advanced countries, the risks are manifested in concerns about the sustainability of the current configuration of high U.S. equity prices and dollar strength. There are also risks for the emerging markets as regards the reduced investor base, the level and structure of external financing, and cutbacks in market making in external debt markets.

The turbulence and severe spillovers have raised issues about the market dynamics associated with highly leveraged financial systems, the adequacy of current approaches to assessing systemic risk, and the sources of spillovers to and across emerging markets. Previous *International Capital Markets* reports have focused on several aspects of these challenges, and this year's report considers, in particular, the public policy issues posed by the role of off-balance-sheet leverage in modern finance, the impact of HLIs on small and medium-sized markets, emerging market responses to severe external pressure, and the performance of the major credit rating agencies during the emerging market crises.

Mature Markets

A key risk—and one which has heightened in the last 12 months—is the possibility of a large correction in the U.S. equity market, with the risks of a spontaneous correction in the other advanced markets somewhat lower. Following a brief interruption during last year's turbulence, U.S. equity prices and measures of stock-market valuation have continued to surge to new highs with significant gains in the past 12 months. Uncertainty about the outlook for corporate earnings has, however, increased, given the advanced stage of the U.S. business cycle and the fact that the decline in long-term interest rates has recently reversed. An alternative explanation for the recent gains—a further compression in the equity risk premium—is difficult to reconcile with the evident ongoing global repricing of risk, although the increased participation of individual investors in the equity market implies that the equity risk premium may have declined somewhat.

Conflicting signs of a turning point in the inflation and monetary policy cycles and uncertainties about the size and extent of leverage in the global financial system complicate the assessment of the likelihood and implications of any equity-market correction. The small increase in the federal funds rate at the end of June was accompanied by a statement that the U.S. monetary authorities would be especially vigilant about the potential emergence of inflationary pressures. The unusually favorable inflation performance during the past few years may, however, have led some market participants to underestimate the extent of tightening that may be eventually needed. The 1998 turbulence demonstrated how a shock can be amplified and propagated across leveraged financial systems, giving rise to volatility in far-flung markets. A steep correction in the U.S. equity market would likely have serious consequences in a similarly leveraged system. Researchers have suggested that leverage and imbalances have been reduced since the turbulence; against this, there are also indications that some channels for leverage (such as the yen carry trade) saw renewed activity in the first part of 1999, and that banks in mature markets have recently increased their exposures to securities markets. Absent comprehensive information about the extent of leverage in the major financial systems, the vulnerability of those systems and the emerging markets to a correction in the U.S. equity market may be considerable.

There is also the possibility of sharp adjustments in the dollar if tensions between near-term and medium-term pressures are resolved abruptly. For example, while cyclical differences have kept the dollar strong in effective terms in the last couple of years, current account imbalances suggest a weaker dollar over the medium term. If this tension is reconciled abruptly—or if the realignment is amplified by leverage or other technical features of foreign exchange markets—exchange rate volatility could result, with an associated risk of spillovers into other markets.

The international financial system also faces risks from the Y2K problem. Owing to strong and early efforts by many national authorities, most financial institutions in the major countries will have prepared their own systems in time for the millennium, so that technical risks stemming from their own failures appear to be small. However, financial institutions in mature markets still face risks stemming from technical failures in those nonfinancial corporations and emerging market financial institutions with whom they have important business relationships; the relatively limited transparency about preparations in these areas adds to concerns. All financial institutions face risks stemming from an adverse market reaction (whether warranted or not), as tensions will likely build up in the run-up to the millennium: market liquidity and the appetite for risk could decline, and liquidity may command an increasing premium. Market reactions could range from a moderate flight to quality to an extreme flight to cash and large cutbacks by major banks in their exposures to emerging markets. In view of these risks, and the limited time remaining, it is encouraging that financial institutions and authorities in the mature markets have recently increased their efforts at contingency planning, including to manage liquidity pressures and to ensure business continuity around the date change. Such efforts should be intensified in the regions and sectors where preparations have lagged.

Emerging Markets

The pickup in emerging market asset prices in the first half of 1999 has occurred despite restricted access to global financial markets (especially for nonsovereign issuers) and a diminished investor base. While improving macroeconomic conditions in a number of emerging markets (particularly in Asia) and in Japan could further strengthen the asset price recovery, a number of factors pose risks. As noted earlier, a pickup in inflationary pressures in the United States could lead to a further tightening of monetary policy and a rise in global market interest rates. Historically, a tightening of monetary conditions in mature markets has often been accompanied by a slowdown in capital flows to emerging markets and a widening of interest rate spreads in emerging markets securities. Recent empirical studies suggest that a rise in mature market interest rates not only raises the base cost for emerging market borrowing but also increases the spread on that borrowing, and that a tiering of issuers tends to take place (with less creditworthy borrowers not attempting to access global bond markets). Moreover, a sharp adjustment in equity prices in advanced countries such as the United States could have strong negative repercussions on emerging equity markets.

Another development that is drawing increasing attention is the state of the corporate sector in some emerging markets. While there is a perception that limited progress has been made in restructuring Asian corporates, there is also concern that a growing number of Latin American corporates may have difficulties meeting their obligations if external financing remains tight. The deteriorating position of the Latin American corporates is viewed as reflecting the slowdown in economic activity in the region, the presence of high real interest rates in some countries (such as Brazil), and the restricted access to credit from either global markets or domestic banks. These concerns about corporate sector weaknesses are also leading investors to focus on the ability of some banks to absorb a higher level of nonperforming loans.

More generally, the adjustment in the investor base for emerging markets securities is still under way. One concern is that a “vicious circle” has been evident in the period since the Russian debt restructuring. The sharp increase in interest rate spreads and asset price volatility led many investors to reassess the risks associated with holding and trading emerging market securities. For some institutional investors, the higher asset price volatility required a decision as to whether to close out their positions in emerging market securities or to devote more capital to supporting these positions. In many cases, the decision was made to close out the positions. Moreover, some investment banks decided to shut down their emerging market trading desks. As the number of investors actively trading and holding emerging market securities has declined, liquidity in those markets has diminished, which has resulted in higher bid-ask spreads and increased asset price volatility. This adjustment is still not complete, but its ultimate outcome will have important implications for both the terms and conditions of market access and the sustainable level of capital flows to emerging markets.

Private and Public Policy Challenges Raised by Highly Leveraged Institutions and Activities

The turbulence following Russia's unilateral debt restructuring and devaluation has raised a number of questions about the adequacy of current lines of defense against systemic risk and the factors contributing to the rapid dynamics and spillovers that characterize modern financial markets. The three lines of defense against systemic risk—market discipline, prudential supervision and regulation, and macro-prudential surveillance—proved inadequate to prevent a buildup in leverage. Moreover, both policymakers and market participants were caught by surprise by the spillovers during the turbulence, as a rapid process of portfolio rebalancing and deleveraging was triggered by a sharp increase in risk aversion.

The turbulence has raised a number of important challenges for public policy and the private sector. One important issue is to understand better the broad features of the environment that contributed to a buildup in leverage before the turbulence, with a view to strengthening the ability to avoid similar vulnerabilities in the future. A second is to identify the specific changes in private incentive structures and information disclosure that could facilitate a greater role for the market in containing excessive and imprudent risk taking, and allow prudential supervision and market surveillance to be more proactive. The third is the need to balance the efficiency-enhancing aspects of modern financial practices with the risk that they may exacerbate the short-run effects of shocks and contribute to spillovers across markets.

The main proposals that have been advanced, or are under consideration, in various forums to contain excessive leverage appropriately emphasize the importance of a significant strengthening of market discipline. For the most part, the proposals do not call for greater direct regulation over hedge funds, since hedge funds are seen as only one of many institutions employing leverage, and a number of difficult issues are posed if attempts are made to directly regulate these funds. Moreover, it is envisaged that banks should tighten controls on their exposures to hedge funds and through this means contain the risk of a buildup in excessive leverage. The proposals appropriately note that improvements in market discipline require a significant increase in the amount of information that financial institutions, including hedge funds, should regularly provide to their counterparties and to markets. Less attention has been given to the improvements in supervision and surveillance that could help better monitor the buildup and concentration of leverage and help identify problems at an early stage (the second and third lines of defense).

Even though current proposals make substantial progress identifying means to improve the lines of defense, a number of important challenges remain.

- *Analytical framework.* There is now no agreed analytical framework for understanding the role of off-balance-sheet leverage, assessing the conditions under which it might rise to levels that pose systemic risk and, more generally, for assessing

ex ante when it has become unsustainable. Such a framework is needed by private market participants to assess the riskiness of their own positions and also by national authorities charged with supervision and market surveillance. One important reason such a framework does not exist is that the recent increases in financial market complexity and the range of instruments by which leverage can be acquired have made it difficult to measure and assess when leverage may become excessive. In these circumstances, most of the proposals for reform focus on the shortcomings in private risk management and information disclosure that are thought to contribute directly to excessive risk taking, under the assumption that improvements in these areas will help avoid too much leverage. It would clearly be desirable, however, to have a better understanding ex ante of when leverage is rising to levels that could pose systemic risks.

- *Incentive structures.* Understanding of both private and regulatory incentive structures needs to be improved. In particular, the shortcomings in incentive structures within private firms, which contribute to lax risk management practices and poor controls on counterparty exposures, need correction. In addition, there is the issue of how supervisory and regulatory frameworks may have influenced and possibly distorted private incentive structures. The various proposals that have been made to improve risk management are beginning to address the changes in incentives that will be required within firms to ensure the adequate monitoring and control of risk, but the key to their success will be to increase the role of the stakeholders in these firms in imposing effective and timely discipline.

- *Information.* The types and frequency of information needed to bolster market discipline and improve supervision and surveillance need to be better understood. Key issues include the nature and form in which off-balance-sheet exposure information is to be presented and the role to be played by value-at-risk and stress testing information. There are, in addition, a range of issues related to the assessment and presentation of information on potential future exposures and what information supervisors might disclose to the market. An important next step will be to reach agreement on a core set of data that could be disclosed to markets on firms' risk exposures and the frequency with which such data should be made available.

The need to bolster systemic or macro-prudential oversight (third line of defense) introduces a number of other important areas that need to be addressed.

One issue concerns the nexus between monetary and financial policies and the role that liquidity conditions played in the buildup in leverage before the Russian crisis. Market participants frequently described global liquidity as unusually abundant during this period, as reflected in relatively low interest rates in many of the advanced countries. These favorable liquidity conditions were thought to have contributed to the high levels of leverage within advanced countries and the surge in capital flows to the emerging markets. Closer monitoring of global liquidity conditions and assessments of the implications for financial markets could play a potentially important role in financial market surveillance and in alerting official

sectors to the possible buildup of imbalances. This would allow supervision and market surveillance to become both more proactive and countercyclical, and would lead to intensified surveillance during periods when liquidity is abundant.

Second, there is the issue of whether national authorities are adequately exploiting the synergies between prudential macro-surveillance and the supervision of individual financial institutions. In particular, supervisors of individual financial institutions might benefit from greater use of the broader market intelligence obtained through market surveillance in seeking to identify a buildup in vulnerabilities across institutions and markets. In addition, those undertaking market surveillance would benefit from the information supervisors obtain when considering each institution individually. Greater exploitation of such synergies might, for example, have helped identify the buildup in leverage last year and the concentration of positions in particular markets and vis-à-vis particular institutions. Given that such synergies increasingly exist both within and across national borders, they imply a need for closer cooperation among supervisors and market surveillance across countries.

There is also the problem that the ongoing rapid pace of financial innovation and globalization is leading to widening gaps between what regulators need to know to supervise internationally active financial institutions and the information set and capabilities of the institutions themselves. These problems are accentuated by the growing scope that financial innovation and globalization are giving to regulatory arbitrage, and they imply that efforts to regulate one set of institutions or activities can be undone and have unintended consequences. As the rapid pace of innovation and globalization continues, these problems will likely worsen, suggesting the need for additional consideration of how regulators can stay abreast in an increasingly dynamic and interrelated global financial system. There are unlikely to be simple solutions, and supervisors will invariably be at a significant information disadvantage relative to the institutions they supervise. Nevertheless, improved understanding of the risk control mechanisms within firms and emphasis on the adequacy of risk control practices can help limit the risks from these informational asymmetries.

Another important issue is the role that the heavy reliance on modern risk management practices might play in exacerbating and propagating financial turbulence. As noted in previous *International Capital Markets* reports, these practices have been introduced over time by the private sector to manage and control risk, including in helping to facilitate the timely identification of emerging difficulties. In the context of adverse capital market shocks such as those in 1998, however, there is the possibility that the rigid use of these practices—together with frequent marking to market—may exacerbate financial market strains because of the speed with which they call for portfolio rebalancing and deleveraging. There is no unambiguous answer to the "optimal" design of risk control mechanisms and the balance between the "slow" adjustment to shocks that has traditionally characterized relationship banking and the rapid adjustment in modern dynamic capital markets. Recent experience points to the importance of not relying rigidly on risk models, given their limitations, and the need for judgment and flexibility in managing risk. At the same time, an important consideration is the apparent inability of risk models to play a larger role in the avoidance of excessively risky positions. Given the high level of leverage that had been

allowed to build up before last year's turbulence, a significant adjustment was probably inevitable, and the key to avoiding the resulting kinds of turbulence is a strengthening ex ante of risk management and control procedures.

In addition to the systemic issues posed by high levels of leverage, a number of small and medium-sized countries have expressed concern that their markets have been pushed around by HLIs, including hedge funds. In particular, Australia, Hong Kong SAR, Malaysia, and South Africa have argued that some of these institutions cooperated in quietly building up short positions in their foreign exchange or domestic asset markets and then sought to close out their positions at a profit by spreading false or misleading information. Efforts to evaluate these concerns have been compounded by a lack of transparency about the activities of HLIs and the paucity of data on transactions in OTC markets. Moreover, the activities of concern have tended to occur during unsettled market conditions, when it is difficult to distinguish between speculative activity based on fundamentals and more aggressive tactics. These are also periods when it is not easy to distinguish between collusive behavior and herding.

Even though there has only been limited analytical work on private foreign exchange market manipulation, there is a relatively strong presumption that because the underlying assets—domestic and foreign money—are widely held and the macro information that usually drives these markets is generally widely available, foreign exchange markets are less prone to private manipulation than are individual domestic asset markets. Furthermore, in the case of a pure floating exchange rate regime, any speculators attempting to build up large short positions in a currency would find that the exchange rate would move against them. The situation is more complicated in the case of pegged or managed exchange rate regimes since official exchange market intervention can influence the profitability of these strategies, and ill-founded, as well as solid, rumors about exchange rate policy can be an important driving force in short-run exchange market pressures. Based on preliminary discussions with various market participants and national authorities, the IMF staff's view is that the concerns expressed about the activities of some HLIs cannot be easily dismissed and that important issues are raised by the apparent large size and concentration of the positions of some HLIs in certain markets. Substantive questions remain about whether attempts at exchange market manipulation have, in practice, been a major source of volatility and whether the efforts are systematically able to generate profits for speculators. The possibility that such tactics may be employed from time to time—especially in unsettled market conditions—is, however, a source of concern, and such aggressive tactics may contribute to excessive and unnecessary volatility.

Reforms to deal with the systemic and other issues raised by HLIs and highly leveraged activities are currently being actively discussed in a number of national and international forums, including the Financial Stability Forum. In the IMF staff's view, the systemic issues posed by high levels of leverage can, in principle, be addressed through significant enhancements in market discipline, supported by improvements in disclosure and transparency, more rigorous creditor and counterparty assessments of exposures, and strengthened private risk management and control systems. In addition, more proactive

prudential supervision and market surveillance can play a key role in helping to detect and avoid a buildup in vulnerabilities associated with high leverage. The important next steps involve identifying the specific measures and incentives that will be required to encourage and lock in improvements in these areas, including the kinds of information that should be more frequently disclosed to markets and counterparties. Should strengthened risk management and control by banks not prove sufficient to contain excessive leverage and risk, consideration would need to be given to the feasibility and desirability of additional measures, possibly including tighter direct controls on hedge funds and other HLIs.

While improvements in the above mentioned areas should help address the systemic issues associated with high leverage, it is not obvious that they will deal with the concerns that a number of countries have expressed about the impact of HLIs on their markets. Against this background, further work is needed to better understand the conditions and circumstances under which HLI activities could destabilize small and medium-sized markets and the approaches countries could take to deal with such activities. The solutions adopted will need to balance valid concerns about market integrity with the need to ensure appropriate stabilizing speculation. Among the measures that are being considered by some countries are large-position reporting requirements, higher risk weights on foreign exchange positions, and greater public disclosure by HLIs.

Emerging Markets and the International Financial System

Nonstandard Policy Responses

Extraordinary external pressures and, in some cases, concerns about the aggressive tactics of speculators led a number of emerging markets countries during 1998 to adopt what could be characterized as relatively nonstandard policies.[1] While the classic speculative attack takes place through on-balance-sheet sales of the targeted currency, speculative attacks are increasingly being carried out through a variety of derivatives, such as currency forwards and futures, equity and bond futures, and total rate of return swaps. In response, national authorities are dealing with external pressures by expanding the range of instruments and markets in which they intervene and are becoming more aggressive.

Three recent examples of relatively nonstandard responses to severe external pressure include the intervention during 1998 by the HKMA in the spot and futures markets for

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[1] Over the last couple of years, there have also been a number of other nonstandard responses by emerging markets, including Korea’s decision to use its foreign exchange reserves to support domestic banks operating offshore and Thailand’s efforts during 1997 to squeeze speculators in the offshore market for the Thai baht. See International Monetary Fund, *International Capital Markets: Developments, Prospects, and Key Policy Issues*, World Economic and Financial Surveys (Washington, 1998).

domestic equity to counter the implications of the so-called double play on Hong Kong SAR's markets; interventions by Brazil in the Brady bond market to impose a squeeze on speculators short-selling Brazilian paper; and Malaysia's decision in late 1998 to impose wide-ranging foreign exchange and capital controls to insulate its onshore markets from external pressures and effectively close down the offshore ringgit market. These measures have expanded the menu of responses that countries use during periods of pressure and have potentially altered risk-return trade-offs in markets, with implications for asset prices and market liquidity.

Several observations can be made about these nonstandard interventions.

- In all cases, the interventions took place in circumstances where the authorities believed there was a significant mispricing of assets, volatility was high, and there was a wide divergence of views between the official and private sectors about the economic outlook. In the event, and owing to some degree to subsequent improvements in the global environment, the assets acquired by the HKMA in its intervention subsequently appreciated in value, implying that the intervention was profitable. Conversely, the capital controls imposed by Malaysia were never really put to the test as many foreign investors had already reduced their exposure to Malaysia, and the partly exogenous improvement in the environment meant that external pressures independently eased. Nonetheless, given the uncertain outlook for emerging markets at the time, the Malaysian authorities put the measures in place as an insurance policy against a further worsening of the external situation.

- The imposition of capital controls by Malaysia was fundamentally different from the interventions by Hong Kong SAR and Brazil, since the Malaysian move reduced the options and choices available to the private sector by constraining the taking of positions. The asset market purchases by the HKMA and Brazil, on the other hand, did not limit the ability of the private sector to adjust its portfolio, although they influenced the risk profile.

- In those cases where the authorities purchased assets (Hong Kong SAR and Brazil), the acquisitions were financed in part by foreign exchange reserves or by assets held by other state entities. This potentially reduced the flexibility of the authorities' capacity to respond to future adverse shocks since it reduced the liquidity and/or size of reserves. Whereas Hong Kong SAR was transparent about its intervention and had ample reserves, Brazil's purchases took place at arm's length and—together with its intervention in other markets—might have reduced its foreign asset cushion.

- Even though the market reaction to the interventions was initially quite negative, sentiment was subsequently influenced importantly by the underlying policies adopted by the authorities. Hence, for example, markets eventually responded relatively positively to Malaysia's decision to use the window of opportunity provided by capital controls to move forward on financial and corporate restructuring;

sentiment began to turn around in Hong Kong SAR as the authorities explained the rationale for their actions and took steps to set up an agency to manage their acquired equity holdings. Conversely, market sentiment moved strongly against Brazil when doubts surfaced about its commitment to address its underlying fiscal problems.

Ultimately, the assessment of the nonstandard policy responses needs to take into account the fact that a number of emerging markets faced enormous external pressures last year. Such circumstances may indeed have justified policy responses that go beyond the orthodox interest rate increases and foreign exchange market intervention, but nonstandard responses also carry risks. The judgment about the particular measures adopted by the authorities needs to be set against the menu of other policy instruments or circuit breakers potentially available to deal with extreme asset price volatility. Looking ahead, an understanding of the longer-term implications of these interventions, and an improved ability to differentiate between economic fundamentals and situations of unwarranted volatility, would help guide the kinds of policies needed to maintain orderly market conditions without interfering with efficient market functioning.

Credit Ratings

As emerging markets have increasingly been brought into the orbit of international capital markets, the major credit rating agencies have become important providers of independent assessments of these countries' credit risk. Credit ratings are also becoming increasingly integrated into the regulatory process in both the advanced and emerging markets, and the Basel Committee on Banking Supervision has proposed that ratings should become a key determinant of the amount of capital banks are required to set aside to cover their exposures to sovereign and other borrowers. The most likely new area of growth in the activities of the credit rating agencies will be in Europe, where, spurred by the adoption of the single currency, capital markets are expected to record significant medium-term growth and development. Against this background, increasing attention is likely to be paid by national authorities and regulators to the credit rating process.

While the rating agencies correctly identified growing weaknesses in Asian financial systems, the maintenance of high ratings for many countries right up to the brink of the crisis did little to moderate the large-scale capital inflows and excessive compression in interest rate spreads. Moreover, the subsequent sharp downgrades were clearly an element contributing to the abrupt reversal of capital flows. Rather than being an important independent stabilizing force, the major credit rating agencies did not behave very differently from the vast majority of market participants. While the ratings assigned prior to the crisis were too high, it is arguable that the agencies overreacted and in some cases went to the other extreme. In the aftermath of the spillover of pressures to Latin America following the Russian crisis, a number of countries expressed concern that they might be downgraded by the major agencies as they were increasingly caught up in the global liquidity squeeze. The major credit rating agencies, however, made few changes to their ratings at that time, as they

generally looked beyond short-run liquidity pressures and assessed countries' ability to weather the storm.

The reasons why the major agencies missed the Asian crisis and the subsequent contagion are complex and not altogether different from why the IMF and many others were caught out. Moreover, the key lessons the ratings agencies have drawn are not unlike those that have been drawn for IMF surveillance. The key changes the agencies are making in response to the experience include greater attention to banking sector weaknesses and the associated contingent public sector liabilities; to the structure as well as the overall levels of public and private external debt, including the dependence on confidence-driven flows and short-term borrowing; and to assessments of countries' contingency plan—and track records—for dealing with external pressures. In addition, the agencies intend to place much more emphasis on transparency, especially as regards countries' foreign exchange reserves and external debt positions. The major agencies are continuing to struggle with how to deal with contagion, but the increased attention that will be given to confidence-driven capital flows is intended, at least in part, to allow for the importance of spillover effects.

The prospect of an even greater role for the credit rating agencies in the regulatory process places a premium on the enhancements the agencies are currently making to the rating process. An important question in this connection is whether the changes being made will adequately address the underlying factors that contributed to the shortcomings in ratings for Asian countries before the crisis. The importance of this issue is underscored by the fact that if the new proposed Basel risk weights (based on credit ratings) had been in effect in 1997, they would *not* necessarily have called for more capital to be held for sovereign exposures to countries such as Korea on account of its high rating, and might only have increased the risk weight after the crisis erupted.[2]

While the changes agencies are making go a substantial way to improving the ratings process, there are at least three areas of potential concern.

- It is being increasingly recognized by the country risk profession that developments in the global economy have been outstripping their analytical capacity and that there is the need for significant improvements in risk assessment techniques. The situation has reflected the increasing global interdependence of national economies and the rapid expansion and growing complexity of global financial markets and instruments.

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[2] More specifically, in the case of Korea, the sovereign credit risk weight could have been zero before the crisis under the Basel proposal (the same as under the current approach), on account of the high investment-grade rating assigned to Korea by all the major agencies. As Korea was downgraded during the crisis, the sovereign risk weight would have risen to about 100 percent by the end of 1997. Of course, if the new weights also take into account SDDS participation and compliance with the Basel principles, as proposed, these effects could be mitigated.

Credit rating agencies will need to continue to address these changes through country risk assessments that more fully incorporate uncertainty, including the greater use of alternative scenarios, sensitivity analysis, and macroeconomic stress testing.

- The intention of the agencies to put more emphasis on data transparency is appropriate, but significant further progress on data disclosure is required of many countries. In this connection, the agencies have underscored the importance they attach to the SDDS adequately covering reserves and short-term external debt and, more generally, the need for greater transparency in data if there is to be more stability in ratings and avoidance of the kind of abrupt changes that occurred during the Asian crisis.

- Because of the increasingly interrelated and complex global economy, there is also the issue of whether the major agencies assign adequate resources to the country rating process. The agencies' resource decisions are, of course, ultimately determined by profit maximization and reputational considerations—and at least one of the major agencies has recently expanded staff—but the assignment by the major agencies on average of only one professional to cover as many as seven countries appears low.

The expected increased use of credit ratings in the regulatory process in the wake of the recent Basel proposals will raise a number of issues for the major credit rating agencies. From the regulatory perspective, ratings are a private indicator of credit risk that have (at least in the case of corporates in the United States and some other advanced countries) a reasonable track record, and could be considered for use by banks that have not developed effective internal rating systems or internal credit risk models. In the past, however, major credit rating agencies have expressed concern that the increased regulatory use of ratings may lead to shopping for ratings and generate pressure for the regulation and/or supervision of the agencies themselves. These concerns are not unfounded, and it will be important for national authorities to balance the need to ensure that sound ratings are used for regulatory purposes with the continued independence of the ratings agencies.

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The agenda for the public and private sectors coming out of the recent turbulence and emerging markets crises is a long and ambitious one. Beyond improving our understanding of the market dynamics of increasingly integrated financial markets, there are important challenges related to improvements in surveillance and regulatory regimes, ensuring the adequate dissemination of information and standards, and enhancing market discipline. Within the private sector, there is the need to build upon initiatives already under way to strengthen risk management and control and to adapt to the changing nature and complexity of financial markets. While these efforts will obviously not eliminate financial crises, they can play an important role in reducing the frequency and amplitude of such episodes and allow all countries—including emerging markets—to benefit from participation in global capital markets without exposing themselves to high risks.