Managing Global Finance and Risk

The turbulence that swept through financial markets in the fall of 1998 was a wake-up call. It revealed that risk-management practices and supervisory and regulatory frameworks did not fully take account of the changing nature of private financial risk-taking, market dynamics, and systemic risk.

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RUSSIA'S unilateral debt restructuring in August 1998 and the subsequent ruble devaluation sent shock waves through mature financial markets. Many investors experienced dramatic losses. One of the world's largest hedge funds, Long-Term Capital Management (LTCM), found itself near collapse in September 1998—setting off a chain reaction of further losses for financial market participants. Even though the U.S. authorities facilitated a private rescue of the fund, markets continued to be uneasy, causing a pullback in lending and raising the specter of a credit crunch.

The turbulence uncovered weaknesses in the international financial system and called into question the adequacy of existing defenses against systemic risk in light of changes that have transformed the world of finance. First, market discipline may have been undermined by the existence of financial safety nets such as deposit insurance and lenders of last resort, and many financial institutions may now be considered too important to fail. Second, modern risk-management practices—such as marking to market, margin calls, dynamic hedging, and frequent portfolio rebalancing to meet internal and regulatory capital requirements—allow institutions to make rapid adjustments in response to new information and reappraisals of risk. When such adjustments are made by large institutions with international operations, spillovers may occur between seemingly unrelated markets. Third, the growing use of off-balance-sheet transactions has made it easier for institutions to leverage their capital positions. During economic booms, the ability to leverage may encourage institutions to undertake activities that turn out to be unprofitable and unsustainable once markets change direction—as was the case with LTCM—and high leverage levels magnify the consequences of negative shocks.

Private financial institutions and public policymakers face a complex challenge. They must find ways to limit and manage risk taking and curb the buildup of financial excesses that can lead to the virulent market dynamics witnessed last fall, but without sacrificing the efficiency-enhancing potential of innovative financial instruments and techniques. Of paramount importance in averting future turbulence and crises are improvements in financial disclosure and transparency; greater awareness and better coordination of private, market, and regulatory incentive structures; a better understanding of the changing nature of systemic risk; and the reduction of moral hazard.

Financial disclosure and transparency

Adequate, timely disclosure by financial institutions and transparency of their risk profiles are fundamental for effective market discipline and regulatory and supervisory oversight. However, accurate information about risk exposures may be difficult to obtain in an environment in which risks can be unbundled, repackaged, and embedded in securities. Risk managers can estimate the capital at risk based on risk-management models and stress tests. Although this provides some understanding of a firm's exposure and how well the firm's portfolio might perform outside historically based scenarios of market stress and turbulence, it may not be sufficient. The financial industry has begun to develop techniques for more accurately estimating potential future exposure and assessing the possible impact of systemic disturbances on capital at risk.

A financial institution's external stakeholders—investors, depositors, creditors, and counterparties—are also challenged by the lack of transparency. Often, the only information available to them about risky off-balance-sheet activity is in footnotes in the firm's annual report.

The lack of transparency gives rise to systemic concerns related to the concentration of exposures within specific markets and linkages across markets. Without adequate information, it is difficult for officials to know where in the international financial system risks and vulnerabilities might be concentrated.

That last fall's turbulence was largely unanticipated suggests that risk-management and stress-testing systems may have been predicated on insufficient information about market dynamics and the possible repercussions of economic and financial shocks. Given that market participants are still learning about, and adapting to, structural changes, information and management control systems may not have fully taken into account the pace of financial innovation and the impact on market dynamics and cross-market linkages of the growing use of derivative financial instruments.

Incentive structures

Increased disclosure and transparency are necessary but not sufficient to prevent a buildup of vulnerabilities and unsustainably high levels of leverage. Firms must have incentives to seek information and act on it. Global financial institutions are faced with a complex composite of incentives consisting of their own internal incentive structures, internal and external corporate governance, a competitive market environment, and multiple supervisory and regulatory frameworks.

The internal discipline of firms is created by incentive structures and enforced by management. For effective internal discipline, the incentives of individual business units and decision makers must be aligned with an institution's overall objectives and supported by external stakeholders (and, to some extent, official supervisors). However, private incentive structures have not yet been adapted to account fully for financial modernization, securitization, and globalization, and may be neither consistent with, nor supportive of, market discipline. Therefore, public policy may need to play a greater role in ensuring that private incentive structures provide an appropriate degree of market discipline.

Private risk management and prudential oversight of financial institutions can be improved, and incentives strengthened for depositors, creditors, counterparties, and investors to exercise greater control over the activities of financial institutions with which they have business relationships. Moreover, because private and regulatory incentives jointly affect private financial decisions, existing regulations should be reviewed to ensure that they do not distort private incentives.

Reducing moral hazard

Moral hazard, which has the potential to significantly distort private incentives, is an inevitable consequence of ensuring financial stability. Because financial stability is a public good, the public sector must provide insurance to protect against systemic problems; otherwise, private market participants may collectively be unwilling or unable to take even acceptable risks, which could inhibit financial intermediation. Prudential oversight and other elements of official involvement constitute preventive and corrective mechanisms that provide a degree of insurance and stability to national financial systems as well as to the international financial system—so long as official involvement remains within reasonable boundaries and does not lead market participants to think they can take imprudent risks without suffering the consequences.

To limit moral hazard and maintain the welfare-improving equilibrium that insurance provides, the public sector must also monitor and curb risk-taking behavior that would impinge on the balance of welfare considerations—in particular, it must limit imprudent risk taking by those individual institutions that are most capable of exploiting the public sector safety net. Policymakers are therefore faced with the difficult challenge of balancing efforts to manage systemic risks against efforts to ensure that market participants bear the costs of imprudent risk taking and have incentives to behave prudently.

Understanding systemic risk

The nature of systemic risk has changed as national, bank-based financial systems have given way to today's globally integrated, market-based financial system. Most current defenses against risk are premised on a limited definition of a systemic disturbance as an episode in which problems at one institution might cascade through payment systems, affect interbank relationships, lead to depositor runs, or infect other institutions to the point of posing risks for the financial system itself. Given the expansion of opportunities for risk taking and the growing reliance on markets for financing, these defenses may no longer be adequate. In addition, because private financial practices change quickly, supervisory and regulatory frameworks are unable to keep up, and the ability of the private sector to capture the gains from technological advances may have outpaced the ability of officials to learn how to apply these technologies to measuring and managing systemic risk.

Financial safety nets are generally supported by prudential regulations that require banks to hold enough capital to absorb losses and by reporting and accounting standards and best business practices that ensure that losses are reflected in profit and loss statements. Although this approach has worked reasonably well in limiting systemic damage from financial excesses, it may lead to conflicts between the objectives of regulators, who, by providing insurance, want to reduce systemic risks, and those of the regulated institutions, which have incentives to take greater risks within internal and regulatory capital constraints. There are dangers both in excessively restrictive regulations, which may inhibit efficiency-enhancing risk taking, and in lax enforcement, which might encourage financial institutions to take risks that would not be worth taking in a different environment. There is no definitive solution to this problem, and it is neither possible nor desirable for financial supervisors and regulators to know as much about a financial institution and its risk-taking activities as its own management. Nevertheless, they must continuously reassess instruments for encouraging prudent behavior and risk management, recognizing that some instruments are likely to be imperfect.

Remaining challenges

Even before the turbulence in the fall of 1998 had fully dissipated, private market participants, national authorities, and international bodies had begun to consider reforms to address the weaknesses revealed by the episode. So far, proposals have focused on strengthening market discipline and bank risk management by increasing the transparency of financial institutions (see reference for details). The proposed measures for enhanced risk management are, by and large, appropriate, but several important areas have not yet been fully addressed.

Improving incentive structures. Current proposals do not directly address the role of incentive structures in preventing a buildup of financial vulnerabilities. Internal incentive structures could be improved through an integrated, firmwide, comprehensive approach to risk management and control that aligns the incentives of all players—from back office to traders to risk officers—with the incentives and risk preferences of senior management and shareholders. Screening and monitoring by stakeholders could be strengthened by providing market participants with additional market-based incentives that are more in line with public policy objectives.

Official proposals do not explicitly acknowledge the scope for improving regulatory incentive structures. A current proposal to revise the Basel Accord suggests there is likely to be greater flexibility in tailoring the regulatory burden (including capital requirements) to the effectiveness of a firm's risk-management and control systems, but this remains to be seen. Other possible adjustments to prudential regulations and supervisory oversight are still being discussed. This effort should include an evaluation of how regulatory and private incentives interact, and whether regulatory incentives are distorting private incentives.

Increasing disclosure and transparency. There were significant gaps in information in the run-up to last fall's financial turbulence. Official proposals do not clearly delineate what type of information should be disclosed, how often, or to whom. Although there is clearly a need to know more about risk exposures, off-balance-sheet activity, and over-the-counter derivatives markets, what form the information should take remains unclear.

Improvements in information on financial institutions' off-balance-sheet activities could prove useful for both supervision and surveillance. As supervisors intensify their information-gathering efforts and refine their methods of assessing individual institutions' risk exposures related to over-the-counter derivatives, a finer reporting network could be established for surveillance purposes. Those responsible for surveillance would be able to obtain timelier, more detailed information on off-balance-sheet activities, and this information would help supervisors see where the risks are.

Understanding modern financial systems. Many of the analytical frameworks now in use were designed to assess and monitor risk exposures and concentrations, leverage, financial fragility, and systemic risk associated with traditional banking activities. Credit risk needs to be better understood and modeled, especially because it has begun to take different forms—and is often off the balance sheets. Analytical frameworks that enable a better understanding of the benefits—and risks—of leverage, the gaps and incompatibilities between private and regulatory incentive structures, and changes in market dynamics are also needed. The public sector—central banks, in particular—could take a lead role in developing an informative analytical framework, which would be useful in shaping disclosure requirements.

Other challenges for the public sector

The stability of financial systems depends on the soundness of individual financial institutions. There may be unexploited synergies between macroprudential oversight, which is focused on systems, and microprudential oversight, which is concerned with institutions. For example, more extensive discussions between the supervisors of internationally active banks might have uncovered the large creditor and counterparty exposures to LTCM. Supervisors could benefit from market intelligence on the risks faced by individual firms, while those responsible for market surveillance could benefit from knowing about financial institutions' market-related activities.

Second, because of the way they use information and technology and their command of resources, financial institutions have informational advantages over regulators. Public authorities' capabilities for assessing the implications of financial innovations lag behind the private sector's exploitation of those innovations. Widening gaps between regulators and those they regulate limit officials' ability to monitor global markets, oversee financial institutions, and enforce regulations. Moreover, in view of the national orientation of supervisory, regulatory, and surveillance structures, the globalization of financial markets and the rise of financial conglomerates have also widened jurisdictional gaps. Continuing efforts are required to update supervisory tools and regulatory frameworks.

Third, there are close links between monetary stability and financial stability. Although it is unlikely that monetary policies in the major countries contributed directly to the buildup of vulnerabilities leading up to the market turbulence of the fall of 1998, they may have had an unintended impact on the global pool of liquidity. For example, while low Japanese interest rates of 0.5 percent may have been appropriate for promoting aggregate demand in Japan in 1997–98, they were associated with the heavy reliance on the yen carry trade, which supplied liquidity to several regions via swaps in international capital markets. National monetary policies may also at times support—if not encourage—a buildup of leverage and position-taking in international markets beyond prudent levels.

Going forward

The initial approach should be to identify concrete ways to bolster—and reform, if necessary—existing defenses against systemic problems. More information would enable financial institutions to strengthen their tools for managing risk, private stakeholders to price risks more accurately, and supervisors and those responsible for surveillance to exercise adequate oversight. The ability to understand, measure, monitor, and control the buildup of leverage and other risk-taking activities should be an important part of this approach. Regulatory reforms will undoubtedly be necessary, but first the existing rules of the game should be reexamined to see which of them still apply. It would also be beneficial to have a clearer sense of how incentives, risk taking, and market structure and dynamics interact in modern financial systems.

There can be little doubt that moral hazard also needs to be reduced. The appropriate balance between market discipline and official intervention involves difficult trade-offs between different objectives. On the one hand, financial safety nets appear to have significantly lessened the deadweight losses and real economic damage associated with financial crises earlier this century. On the other hand, these same safety nets may contribute to excessively risky behavior and involve potentially large costs to taxpayers. A factor that complicates attempts to increase reliance on supervision and regulation is that the large, globally active financial institutions are sometimes able to circumvent regulation by taking advantage of the information gaps that exist between them and supervisors. The buildup of financial vulnerabilities that became evident only after the turbulence occurred in the fall of 1998 was a warning: existing frameworks for banking supervision, official surveillance of markets, and management of systemic risk may not call for enough monitoring or provide adequate safeguards against systemic events.

Ultimately, each time the public sector intervenes to save institutions, it creates expectations that it will intervene on future occasions. Moral hazard is the obvious result. One way to limit moral hazard is to make more frequent decisions that reduce the perception that interventions are the rule and failures the exception—for example, by reducing the size and scope of the safety net. The more general objective would be to increase the involvement of private sector institutions in preventing systemic problems, not just through improved private risk management to protect themselves but also through greater awareness that their actions have systemic implications and are affected by systemic problems created by others. Given that the scope of official financial safety nets is unlikely to be reduced quickly or entirely, the ability to monitor and supervise modern financial systems remains critical. Vigilance and flexibility will be necessary to prepare for future financial problems, which will undoubtedly take different forms from those experienced in the past. F&D

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