Annex IV

Proposals for Improved Risk Management, Transparency, and Regulatory and Supervisory Reforms

Dynamic changes in financial institutions and capital markets are posing increasingly complex challenges for financial regulation and supervision. Wider circles of counterparties now interact with each other in a larger number of business lines; financial instruments have become more complicated; and financial intermediation relies increasingly on fast-changing financial markets. Consequently, the distinction between commercial banks, securities firms, insurance companies and other financial institutions has become blurred, and large diversified financial conglomerates have been created that span the spectrum of financial services and global markets. Highly leveraged activities and institutions engaged in these activities, including unregulated hedge funds, have emerged on a scale that could pose systemic risks. All in all, financial innovation (especially off-balance-sheet activities) and globalization may have reduced the transparency of the global financial system and increased challenges for market participants and supervisory agencies alike. This annex briefly describes the proposed revisions to the Basel Accord on Capital Adequacy and the newly established Financial Stability Forum and then summarizes regulatory and supervisory developments during the past year in the following areas: (1) risk management and internal control systems; (2) disclosure and market discipline; (3) HLIs, including hedge funds; and (4) the supervision of financial conglomerates and international accounting standards (see Table A4.1). The summary focuses on the broad issues and does not cover regulatory developments in particular countries.

Most of the regulatory and supervisory issues are part of the wider agenda on the international financial architecture.[1] Key pillars of the reform agenda are the development, dissemination, and adoption of internationally recognized standards, and the promotion of greater private sector transparency to bolster market discipline. In the wake of the 1997 Asian crisis, numerous regulatory initiatives were proposed, mostly targeted at setting global standards and guidelines that are in many cases derived from practices in developed countries. These standards were gathered in the *Core Principles for Effective Banking*

[1]See the reports on the international financial architecture prepared by the Working Group on International Financial Crises (1998), the Working Group on Strengthening Financial Systems (1998), and the Working Group on Transparency and Accountability (1998).

Table A4.1. Key International Supervisory and Regulatory Reports and Guidance Notes

Subject	Document	Date Issued
Capital Adequacy		
Basel Committee on Banking Supervision	*A New Capital Adequacy Framework*	June 1999
Risk Management and Internal Controls		
Basel Committee on Banking Supervision	*Credit Risk Modelling: Current Practices and Applications*	April 1999
	Framework for Internal Control Systems in Banking Organizations	September 1998
	Operational Risk Management	September 1998
International Organization of Securities Commissions (IOSCO)	*Risk Management and Control Guidance for Securities Firms and Their Supervisors*	May 1998
U.S. Federal Reserve	*Supervisory Letter 99-3*	February 1999
U.S. Office of the Comptroller of the Currency	*OCC Bulletin 99-2*	January 1999
Counterparty Risk Management Policy Group	*Improving Counterparty Risk Management Practices*	June 1999
Institute of International Finance	*Report of the Task Force on Risk Assessment*	March 1999
International Swaps and Derivatives Association (ISDA)	*ISDA 1999 Collateral Review*	March 1999
Disclosure and Market Discipline		
Basel Committee on Banking Supervision and the IOSCO Technical Committee	*Recommendations for Public Disclosure of Trading and Derivatives Activities of Banks and Securities Firms*	February 1999
Basel Committee on Banking Supervision	*Enhancing Bank Transparency*	September 1998
Basel Committee on Banking Supervision and the IOSCO Technical Committee	*Supervisory Information Framework for Derivatives and Trading Activities*	September 1998
Highly Leveraged Institutions (HLIs)		
Basel Committee on Banking Supervision	*Banks' Interactions with Highly Leveraged Institutions*	January 1999
	Sound Practices for Banks' Interactions with Highly Leveraged Institutions	January 1999
United States President's Working Group on Financial Markets	*Hedge Funds, Leverage, and the Lessons of Long-Term Capital Management*	April 1999
Deutsche Bundesbank	*Hedge Funds and Their Role in the Financial Markets*	March 1999
Reserve Bank of Australia	*Hedge Funds, Financial Stability and Market Integrity*	March 1999
Supervision of Financial Conglomerates and International Accounting Standards		
International Accounting Standards Committee	*Financial Instruments: Recognition and Measurement*	March 1999
Joint Forum on Financial Conglomerates	*Supervision of Financial Conglomerates*	February 1999
Basel Committee on Banking Supervision	*Sound Practices for Loan Accounting and Disclosure*	July 1999

Supervision[2] and have recently been extended in some areas, such as bank transparency. In addition, the 1998 financial market turbulence and in particular the near-collapse of LTCM spawned a wave of regulatory and supervisory reports, guidelines, and forums in both the public and private sectors that are primarily directed at improving risk management, strengthening market discipline by increased transparency and disclosure, improving oversight of banks' interaction with HLIs, and enhancing consolidated supervision of financial conglomerates.

The supervisory authorities strive to bring regulatory standards up to date with financial innovations that often seem a step ahead. To adapt regulations flexibly to the increasing pace of innovation and change, supervisors have shifted away from specific regulatory rules and have moved toward a more risk-focused approach to regulation. A key development is the proposed revision to the 1988 Basel Accord on Capital Adequacy that aims at correcting weaknesses in the existing capital regulations and would adapt them to financial innovations and changed banking practices. The consultative paper *A New Capital Adequacy Framework,* issued by the Basel Committee on Banking Supervision in June 1999, proposes capital adequacy rules that would be more closely aligned with risk profiles.[3] The new framework would rest on three pillars: minimum capital requirements that expand the "standardized approach" in the current Accord; supervisory review of a bank's capital adequacy and internal assessment processes; and strengthened market discipline as a lever to encourage prudent and sound banking practices. The Committee proposes to use external credit assessments for determining risk weights for claims on sovereigns and banks, and to some extent for claims on corporates. For some sophisticated banks, the Committee believes that, subject to supervisory approval, internal ratings could form the basis for setting capital charges more closely aligned with underlying risks. To improve incentives for the use of risk-mitigating techniques, the Committee also examined the capital treatment of credit derivatives, collateral, guarantees and on-balance-sheet netting. As part of the second pillar—supervisory review—supervisors would have the authority to require banks to hold capital in excess of minimum requirements to ensure that the capital position is consistent with the bank's overall risk profile and strategy. Preconditions for the third pillar—market discipline, which is viewed as supplementing supervision and regulation in encouraging prudent banking behavior—are high disclosure standards. The Committee will issue concrete proposals on public disclosure in a separate paper.

The financial turbulence of 1998 revealed scope for strengthening efforts to identify incipient vulnerabilities in national and international financial systems. To that end, the

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[2]See Basel Committee on Banking Supervision (1997).

[3]See Box 4.2 in Chapter IV for a summary of the proposed revisions to the Basel Accord on Capital Adequacy.

Financial Stability Forum was established in February 1999 (following the Tietmeyer Report to the G-7 Finance Ministers). It comprises representatives of national and international authorities responsible for questions of financial stability (ministries of finance, central banks, and supervisory authorities of, initially, the G-7 industrial countries and representatives from international financial institutions and international regulatory groupings.[4] While there is a multitude of national and international bodies that regularly monitor aspects of financial system stability, none was thought to have the breadth of information and capacity to assess evolving risks comprehensively. Regulatory bodies deal primarily with micro-prudential issues pertaining to the stability of individual institutions, but it has become increasingly important to consider micro-prudential policies in a wider market-based setting. The Forum would also identify gaps in international standards and codes of conduct and ensure that consistent international rules and arrangements apply across all types of significant financial institutions. Three working groups have been established. One working group has been asked to recommend measures to reduce the destabilizing potential of HLIs. A second working group will evaluate measures to reduce the volatility of capital flows and the risks of excessive short-term external indebtedness. The third working group will investigate the impact of offshore financial centers on global financial stability and assess progress in enforcing international prudential standards by offshore centers.

Proposals to Strengthen Risk Management and Internal Control Systems

Market disturbances in 1997 and 1998 revealed weaknesses in counterparty credit risk and market risk assessments. Analyses since the market turbulence have noted that risk management systems failed in part because of technical weaknesses—for example, correlations across market prices behaved erratically and other key assumptions underlying the techniques proved incorrect. The interaction of financial institutions with hedge funds and other HLIs also revealed the close link between market risks and credit risks. Moreover, seemingly adequate amounts of collateral and margins proved insufficient. These and other shortcomings point to the need to also improve internal control systems. The main challenge is therefore how to adapt risk management tools and internal controls to increasingly global and interrelated markets, new financial products, and potentially more volatile market conditions (including the potential loss of market liquidity).

New supervisory initiatives that have recently been brought under way also aim at narrowing the gap between leading-edge risk management practice and the average industry standard. In part owing to significant losses at some banking institutions, banking supervisors are putting more emphasis during inspections on the review of a banking organization's risk management and internal control processes. To underpin these efforts by national

[4]In addition, representatives from Australia, Hong Kong SAR, the Netherlands, and Singapore have been invited to participate in the Forum's meeting on September 15, 1999.

supervisors, international forums of regulatory authorities (such as the Basel Committee on Banking Supervision and the International Organization of Securities Commissions (IOSCO)) and private groups (such as the Institute of International Finance (IIF) and the Counterparty Risk Management Policy Group) have drafted reports and guidelines on various aspects of risk management.

Public Sector Reports

The Basel Committee's report on *Credit Risk Modelling: Current Practices and Applications* (April 1999) assesses the state of the art in credit modeling with a view to judging whether existing credit risk models could be used in the regulatory oversight of banking organizations and whether internal credit modeling approaches could serve as the basis for formal regulatory capital requirements to cover credit risk. To be used for that purpose, the report emphasizes that models should be "conceptually sound, empirically validated, and produce capital requirements that are comparable across institutions." At this point, the Basel Committee sees significant hurdles, principally concerning data availability and model validation. As to data limitations, most credit instruments are not marked to market, and credit risk predictions can typically not be derived from statistical projections of future prices based on a comprehensive record of historical prices. The validation of credit risk models is more difficult in part because backtesting needs to rely on a longer time horizon (typically one year or more) than market risk models (a few days).

The Basel Committee's *Framework for Internal Control Systems in Banking Organizations* (September 1998, previously issued for consultation in January 1998) complements the Basel Core Principles on issues of internal controls. Recognizing that sound internal controls are essential for the prudent operation of banks and for promoting financial system stability, the paper emphasizes that an effective system of internal controls must be consistent with the nature, complexity, and risk inherent in the bank's on- and off-balance-sheet activities. It outlines 13 principles for use by supervisors to evaluate banks' internal control systems. The principles stress the role of management oversight in understanding the major risks run by a bank, and in taking steps necessary to identify, measure, monitor, and control these risks. A precondition is that the material risks that could adversely affect the bank are being recognized and continually assessed. Control activities should be an integral part of daily activities of a bank, with controls defined at every business level. The principles also stress that reliable information systems and effective communication channels should be in place. The paper recommends that the effectiveness of the banks' internal controls should be monitored on an ongoing basis by an internal audit unit that reports directly to the board of directors or its audit committee.

The Basel Committee's paper on *Operational Risk Management* (September 1998) reports the results of a survey among some 30 major banks. While there is no universally agreed upon definition of operational risk, it is largely considered to be risk arising from human or technical error. Managing operational risk is becoming more difficult as financial instruments and institutions become more complex. Many banks in this survey expected most operational risk events to be associated with internal control weaknesses or lack of compliance with existing internal control procedures. The survey also indicates that while awareness of operational risk among senior bank management was increasing, banks were only in the early stages of developing operational risk measurement and monitoring systems. Some conceptual difficulties that need to be overcome stem from the fact that, unlike market and credit risk, operational risk factors are largely internal to the bank. In light of these problems, many banks thought that the processes were not sufficiently developed for bank supervisors to mandate guidelines specifying particular measurement methodologies or quantitative limits on operational risks.

The IOSCO document on *Risk Management and Control Guidance for Securities Firms and Their Supervisors* (May 1998)—like the Basel Committee paper on internal controls—provides guidance to securities firms and supervisors about internal controls and risk management. It echoes many of the themes in the Basel documents and outlines recommendations and identifies elements of effective risk management and control systems designed to serve as benchmarks. The recommendations stress that controls should be set and monitored at the senior management level. Risk management and controls should include loss tolerance limits at the level of the firm and individual trading desks and should cover market, credit, and operational risk, as well as liquidity and legal risk. Written documentation on control procedures should contain general guidance at the most senior levels and more specific and detailed guidance for smaller business units and trading desks. Firms and supervisors should ensure that control policies, once established, are effectively applied and keep pace with new products and industry technology. Firms also need to establish mechanisms that ensure that inadequacies and breakdowns in controls are reported to senior management on a timely basis.

The U.S. Federal Reserve and the U.S. Office of the Comptroller of the Currency (OCC) have issued guidance notes on risk management that echo many of the messages contained in international regulatory initiatives. In the U.S. Federal Reserve *Supervisory Letter 99-3* (February 1, 1999), the Federal Reserve points to “substantive lapses in fundamental risk management principles regarding counterparty risk assessments, exposure monitoring, and the management of credit risk limits” revealed by the turbulence in both emerging and mature markets during 1997 and 1998.

The Federal Reserve provides guidance on two elements of counterparty credit risk management that may need special attention: adequate internal policies and sufficient internal controls to ensure that practices comply with these policies. As to the assessment of counterparty creditworthiness, supervisors and examiners should pay close attention to the appropriateness, specificity, and rigor of the policies, procedures and internal controls used to assess counterparty risks. In particular, general policies that broadly apply to all types of counterparties may prove inadequate, as the example of hedge fund counterparties has demonstrated. Examiners should ensure that bank policies address the risk profiles of particular types of counterparties and instruments. Internal controls, in the form of periodic independent reviews by internal auditors, are necessary to ensure that practices conform with stated policies. As to the measurement of credit risk exposures, the standard calculation of potential future exposures can be inadequate and may need to be supplemented by more realistic measures of collateralized exposures in times of market stress. Credit enhancements, such as collateral arrangements and contractual closeout provisions, can mitigate but cannot eliminate credit risks. Institutions should ensure that overreliance on collateral does not compromise other elements of sound counterparty credit risk management, such as due diligence. Examiners should focus special attention on meaningful exposure measures, exposure monitoring, and limit systems, which are considered central for the effective management of counterparty risk.

In the same vein, the *OCC Bulletin 99-2* (issued on January 25, 1999) provides new risk management guidance on derivative and other bank activities. It highlights weaknesses in existing risk management systems and identifies sound practices for banks' derivatives and trading activities. While the bulletin focuses primarily on credit risk, it also addresses other sources of risk, including market, liquidity, transaction, and compliance risks. The OCC outlines five key risk management principles:

- Banks must fully understand the strengths and weaknesses of their risk management systems.

- Risk outputs (e.g., value at risk) must be stress tested. Stress testing is an essential component of the market and credit risk management process, and requires the continuing attention of senior management.

- Due diligence, careful customer selection, and sound credit risk management—not competitive pressures—should drive the credit decision process.

- Risk oversight functions must possess independence, authority, expertise, and corporate stature to provide to senior management effective early warning of negative market trends.

Private Sector Reports

Parallel to official reports and guidelines, private institutions and ad hoc working parties are also analyzing the issues surrounding risk management practices. In March 1999, the IIF and the International Swaps and Derivatives Association (ISDA) released reports on risk management and collateral management, respectively. Recently, the Counterparty Risk Management Policy Group, which had been formed by 12 large financial institutions, published a comprehensive list of recommendations.

The Counterparty Risk Management Policy Group (co-chaired by Gerald Corrigan, Goldman Sachs; and Stephen Thieke, J.P. Morgan) released its report on *Improving Counterparty Risk Management Practices* in June 1999. The report contains a set of recommendations for effective management of counterparty credit risk, market risk, and liquidity risk. The Group emphasizes the need for constant adaptation and modification of risk management practices as financial environments evolve. The Group is, therefore, critical of any attempt to codify risk management practices.[5] The quality of risk management is not only viewed as a matter of improving the sophistication and precision of risk estimation models but also as dependent on experience and sound judgment. The Group links the key elements of its recommendations through a conceptual framework that rests on six building blocks:

1. Information sharing between counterparties (particularly credit providers and credit users) constitutes the foundation of effective risk management. The Group therefore proposes to intensify the exchange of information, but it recognizes that the required intensity of information sharing is a function of, inter alia, the credit exposure, the liquidity of the underlying transactions, and the degree of independent oversight of the counterparty. The paper proposes safeguards to protect proprietary client information.

2. The Group outlines an integrated analytical framework for assessing the consequences of leverage on various forms of risk, including credit, market, and liquidity risk. It points out that leverage is not a separate source of risk but a factor that can amplify market and credit risk. Financial institutions should take steps to manage the magnifying effect of leverage on their market risk, funding arrangements, and asset liquidity risk.

3. Measures of counterparty exposures should include liquidity-based potential exposures that take account of the potential for adverse price movements and the liquidity characteristics of contracts and collateral. Stress tests should be based on meaningful customized scenarios. These tests have to be integrated into the firm's risk management process so that risk managers together with trading and credit managers develop stress scenarios that probe for vulnerabilities within and across key portfolios.

4. Strong internal credit practices should combine the various risk elements and take account not only of current creditworthiness but also of potential future exposures. Credit intensive transactions with counterparties that rely heavily on leveraged portfolios should be supported by initial collateral. Appropriate internal cost allocation and valuation practices of counterparty credit risk could provide incentives for traders and credit risk managers to manage counterparty risks proactively.

5. The Group notes scope for improved information for senior management and, potentially, for the regulatory authorities. An independent risk management function should provide relevant information to enable top management to monitor the firm's risk profile. Senior management should convey clearly the overall tolerance for risk. Financial institutions with significant counterparty risk and market risk exposure should be prepared to meet informally with their primary regulator to discuss their principal risks. Clear understandings

[5] See also Corrigan and Thieke (1999).

between the financial institution and its supervisor should detail permissible use of such information.

6. The Group identifies scope for improvements and harmonization in standard industry documents, including the need to ensure that netting arrangements can be carried out in a timely fashion. Financial institutions should have in place written policies to manage documentation risk.

The Report of the Task Force on Risk Assessment (March 1999), issued by the IIF, contains recommendations for both financial institutions and policymakers. Financial institutions are advised to perform comprehensive stress testing regularly to assess the potential impact of extreme events on portfolios and risk profiles. The report also urges integration of country economic analysis with stress testing and scenario analysis. Communication between senior management, portfolio managers, and line managers needs to be adequate, and a strong independent risk control unit should be in place. Methods would need to be developed to improve the integration of market and credit risk, and the understanding of the relationships between market movements, liquidity risk, and credit risk. To strengthen public policy, the IIF advocates changes in regulation to enhance transparency in financial markets (including consolidated financial statements), which is viewed as essential to determine potential credit exposures. Emerging market countries should issue long-dated domestic debt instruments and eliminate impediments to the development of local capital markets. Robust legal frameworks need to clarify bankruptcy proceedings and enforce netting arrangements.

The International Swaps and Derivatives Association, as part of its *1999 Collateral Review*, issued an assessment of how collateral management performed during the periods of market volatility in 1997–98. The review finds that the use of collateral proved to be a successful risk-mitigating tool, but also emphasizes that it creates risks of its own, primarily legal and operational risk. Other risks can arise from asset concentrations and correlations between an underlying exposure and collateral to mitigate that exposure, as well as potential difficulties in selling collateral assets. In light of the survey results, the ISDA provides a series of recommendations concerning, inter alia, the management of the risks associated with collateral, dispute resolution, initial margins, and cross-product netting and collateral use.

Disclosure and Market Discipline

Meaningful, accurate, and timely information provides an important foundation for the decisions of market participants and thus is indispensable for imposing market discipline on the conduct of financial institutions. The national and international proposals focus on several aspects of the connection between disclosure and transparency. They emphasize that to achieve transparency the information must be timely, accurate, and relevant to users trying to make proper assessments about financial institutions and their risk profiles. Well-informed market participants can bolster financial institutions' incentives to operate prudently and can reinforce effective supervision and regulation. Lack of transparency may also be a source of excessive price movements, because asymmetric information can contribute to herd behavior (when some investors' valuation of assets are based not on fundamentals but rather on their expectations of the behavior of others). By contrast, the reports indicate, promptly disclosed and disseminated information can enable market participants to react more appropriately before economic difficulties reach the point of having systemic implications. Recent initiatives recognize this channel for potentially beneficial interaction of prudential supervision and market discipline in promoting financial stability.

Concerning public disclosure, the Basel Committee and the IOSCO Technical Committee jointly issued a consultative paper on *Recommendations for Public Disclosure of Trading and Derivatives Activities of Banks and Securities Firms* (February 1999).[6] The recommendations relate to two areas: information on trading and derivatives activities, and disclosure of internal risk measurements. The Committees emphasize that institutions should disclose meaningful summary information, both quantitative and qualitative, on the scope and nature of their trading and derivatives activities and information of the major risks associated with these activities. Second, institutions should disclose information produced by their internal risk management systems about their risk exposures and the actual performance of exposure management.

The Basel Committee's guidance note on *Enhancing Bank Transparency* (September 1998) complements the Basel Core Principles in this area. The guidelines are based on the premise that there are significant benefits of transparency from a supervisory point of view as well as from a financial stability perspective. The report provides recommendations—albeit rather general—in six broad categories of information: financial performance, financial positions (including capital), risk management practices, risk exposures, accounting policies, and management and corporate governance. The document provides general guidance to banking supervisors, legislators, and standard setters to improve the regulatory framework for supervisory reporting and public disclosure, and to the banking industry on standards for public information disclosure. The report points out that enhanced public disclosure allows market discipline to work earlier and more effectively, thus reducing the severity of market disturbances. Conversely, market disruptions are likely to be greater if the flow of information is irregular. But the report also acknowledges potential drawbacks of public disclosure, including the potential for market overreaction to adverse information about a bank and the possibility of contagion that could spread to healthy institutions. But the report claims that contagion is less likely "in an environment of adequate ongoing disclosure."

Specifically on supervisory information, the Basel Committee and the IOSCO Technical Committee jointly released a revision to the *Supervisory Information Framework*

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[6]These recommendations complement the annual survey of disclosures about trading and derivatives activities of banks and securities firms (see, e.g., Basel Committee on Banking Supervision and IOSCO, 1998b).

for Derivatives and Trading Activities (September 1998). In a continuing effort to monitor the trading and derivatives activities of banks and securities firms, this revised standard (to the 1995 framework) is designed to bring the framework in line with current practice in risk management, particularly market risk. The new supervisory framework presents first a catalogue of data considered important for an evaluation of risks. Second, a common minimum framework, designed to serve as an internationally harmonized baseline, contains information items useful for assessing institutions' involvement in derivatives activities and their credit risk, and for assessing market risk inherent in trading and derivatives activities.

Among ongoing initiatives are the activities by the *G-10 Committee on the Global Financial System* (formerly the Euro-currency Standing Committee) and its various working groups. The Working Group on Enhanced Disclosure by Individual Institutions (the "Fisher Group," chaired by Mr. Peter Fisher of the Federal Reserve Bank of New York) aims to increase transparency and strengthen market discipline by determining useful disclosure standards and practices. The working group's mandate is to identify information suitable for public disclosure that would provide an accurate picture of an institution's exposure to market and credit risk; to explore good practices for public disclosure; and to identify steps toward implementation of such practice. The working group is developing a model template for public disclosure that would include information on credit, market, and liquidity risk (such as the aggregate VaR). Another working group, the Working Group on Enhanced Transparency Regarding Aggregate Positions (the "Patat Group," headed by Mr. Jean-Pierre Patat of the Banque de France), is investigating the usefulness of aggregate position data for improving financial system transparency, particularly given the large number of OTC trades. The working group is also analyzing foreign exchange positions in small markets to examine whether concentrations in holdings can be identified as precursors to market turbulence.

Highly Leveraged Institutions

Last year's financial turbulence, and in particular the near-collapse of LTCM, has cast the spotlight on the highly leveraged activities of largely unregulated hedge funds and revealed potential systemic risks for the global financial system.[7] An important issue raised by the LTCM incident and highlighted by several reports is the control of leverage and risk taking by unregulated financial institutions so that they do not become a source of systemic risk. But transactions with HLIs pose special challenges to the risk management process of counterparties, given the opaqueness of the activities of HLIs and the dynamic nature of their trading strategies. In particular, standard accounting and balance-sheet concepts do not reveal

[7]Hedge funds are exempt in the United States from SEC reporting requirements and from regulatory restrictions on leverage or trading strategies. Hedge funds that trade on organized exchanges are, however, required to register with the Commodity Futures Trading Commission as "commodity pool operators" and are subject to reporting requirements on their exchange-traded options and futures positions.

meaningful details about a fund's risk profile and concentration of exposures in certain markets.

Since the turbulence revealed a breakdown of the disciplining power of market forces, supervisors and regulators have embarked on efforts to promote market discipline, guided by the view that it presents the most immediate and effective way to minimize the potential for systemic risks arising from the activities of HLIs. International supervisors have recommended that market discipline be made more effective by improving risk management practices of creditors and counterparties of hedge funds, and by increasing disclosure of information on the risk profiles of hedge funds and their creditors—to the extent that a hedge fund's proprietary information is not compromised. Timeliness of disclosure is particularly important since funds can alter their positions quickly and frequently.

Except for some debate coming out of Europe, direct regulation of HLIs, by contrast, is currently not being considered since most regulators are concerned that it would significantly weaken market discipline by creating and exacerbating moral hazard. It would also risk moving HLIs offshore—beyond the reach of any substantive (indirect) supervision. However, as explicitly stated by the Basel Committee on Banking Supervision and by the U.S. President's Working Group on Financial Markets, the indirect approach, which relies on the risk management of HLI counterparties, does not exclude the possibility of introducing more direct regulation of HLIs if the indirect measures prove to be insufficient.

A Working Group of the Basel Committee, chaired by Mr. Jan Brockmeijer, released a report on *Banks' Interactions with Highly Leveraged Institutions* (January 1999), which evaluates the potential risks from the activities of HLIs, assesses deficiencies in banks' risk management practices vis-à-vis HLIs, and evaluates alternative policy responses to address these risks. The report concludes that recent events, most notably the near-collapse of LTCM, have highlighted deficiencies in banking institutions' risk management. It therefore urges supervisors to put in place incentives, procedures, and standards to encourage prudent management of bank exposures to HLIs. The report identifies deficiencies in due diligence procedures and in the ongoing exposure monitoring. As a result of limited financial information, credit decisions were, to some degree, based on nonsystematic and largely qualitative assessments of risks, and on the reputation and perceived risk management capabilities of the HLIs concerned. Collateral management systems appeared to adequately provide cover for direct exposures, but not necessarily for secondary market exposures. Banks generally obtained little information on HLIs' off-balance-sheet exposures or risk management strategies.

The report compares features of possible indirect and direct policy measures for HLIs. Concerning indirect approaches, which would focus on the major counterparties of HLIs, the report concludes that many of the risks associated with HLIs can be addressed through better risk management at banks and securities firms. The report recommends standards for sound practices in dealings between banks and HLIs, and a more comprehensive due diligence process and stress testing, as well as improved measures of potential future exposure. The Committee notes that more prudent risk management by banks could also limit the leverage of HLIs. Among measures to enhance the transparency of HLI activities, the report discusses, inter alia, public disclosure by global players and a credit register for bank loans to HLIs. According to the report, direct regulation of HLIs, such as through licensing requirements, and minimum standards for capital and risk management, may be necessary, if the indirect measures, together with enhanced transparency, should prove to be insufficient. The report notes, however, key obstacles for direct regulation, including arriving at a workable definition of HLIs and establishing jurisdiction over the activities of institutions that are located in offshore centers.

In a companion paper, the Basel Committee outlined *Sound Practices for Banks' Interactions with Highly Leveraged Institutions* (January 1999). The paper contains sound practice standards for the management of counterparty credit risk inherent in banks' trading and derivatives activities with HLIs. Among other items, these sound practices call upon banks to:

- establish clear policies and procedures governing their involvement with HLIs;
- adopt credit standards addressing the specific risks associated with HLIs;
- develop meaningful measures of potential future exposure resulting from trading and derivatives transactions;
- establish meaningful overall credit limits, incorporating the results of stress testing;
- link credit enhancements, including collateral and early termination provisions, to the specific characteristics of HLIs; and
- frequently monitor exposure vis-à-vis HLIs.

The report *Hedge Funds, Leverage, and the Lessons of Long-Term Capital Management* by the U.S. President's Working Group on Financial Markets (April 1999) focuses on the systemic issues raised by hedge funds and points out that the impact of HLIs on market dynamics needs further study. The report concludes that the central policy issue raised by the events in global financial markets in the summer and fall of 1998 is how to constrain excessive leverage more effectively—an issue not limited to hedge funds. The Working Group recommends a number of measures to constrain excessive leverage. These measures are designed to improve transparency in the system, enhance private sector risk management practices, develop more risk-sensitive approaches to capital adequacy, support financial contract netting in the event of bankruptcy, and encourage offshore financial centers to comply with international standards. The Working Group does not recommend direct government regulation of hedge funds at this time. However, it indicates that if indirect approaches are not effective, direct regulation may be given further consideration. Specific recommendations were made in the following three areas.

Public disclosure

- Hedge funds should be required to disclose their financial statements to the public; and
- all public companies, including financial institutions, should publicly disclose a summary of their direct material financial exposures to significantly leveraged financial institutions.

Risk management

- Financial institutions should enhance their practices for counterparty risk management (the report suggests areas where private risk management can be strengthened);
- regulators should encourage improvements in the risk-management systems of regulated entities; and
- regulators should promote the development of more risk-sensitive but prudent approaches to capital adequacy.

Other areas

- Regulators' authority to obtain financial information about unregulated affiliates of broker-dealers and futures commission merchants should be enhanced;
- the close-out netting regime for financial contracts should be reformed;
- the interplay between bankruptcy laws across countries should be improved; and
- through stronger incentives, offshore financial centers should be encouraged to comply with international standards.

A report by the Deutsche Bundesbank on *Hedge Funds and Their Role in the Financial Markets* (March 1999) points out that, on balance, hedge funds contribute to greater market efficiency but their investment strategies may contain specific risks. The available evidence, the article notes, suggests that hedge funds played a major role in the 1992 ERM crises but that appeared not to be the case in recent episodes of financial turmoil such as the Mexico crisis and the East Asian crisis. The systemic risks associated with hedge funds depend crucially on the degree of the financial integration of the funds with the banking sector. According to the Bundesbank, calls for regulation of hedge funds appear warranted since the insolvency of hedge funds could jeopardize the stability of the financial system. To enable counterparties of hedge funds and supervisory authorities to assess the risks involved, the Bundesbank suggests that it would be desirable if hedge funds would have to comply, under direct supervision, with extended reporting rules and possibly also with investment and capital requirements. But the Bundesbank acknowledges that at a practical level questions remain on how regulatory measures could be made effective in the context of globalized markets and complex investment strategies. Nonetheless, owing to potential conflicts of interest if banks are at the same time investors in and lenders to hedge funds, relying solely on the disciplining effects of the market is unlikely to suffice. The Bundesbank proposes the introduction of an international credit register for large exposures to provide banks with an efficient monitoring system, which—together with better risk management—could contribute to crisis prevention.

A Reserve Bank of Australia report on *Hedge Funds, Financial Stability and Market Integrity* (March 1999) found that large hedge funds are systemically important institutions that can affect the stability of the financial system and could potentially undermine market integrity by manipulating prices. The report, therefore, concludes that there is a strong case for a public policy response to the emergence of hedge funds. Although regulation of some types of hedge funds may be warranted, the report acknowledges considerable practical difficulties, including the possible move by hedge funds to nonregulated offshore centers and the emergence of new institutions outside the regulatory framework. Therefore the most effective approach, according to the report, would include improving disclosure standards, enhancing the risk monitoring by the creditors of hedge funds, and removing distortions in the Basel capital framework that favor bank exposures to hedge funds.

The report notes that more disclosure is required in three areas: information on market concentration; information for sound counterparty risk assessments; and information to assess the health of financial markets. The report proposes, inter alia, large position reporting requirements, an international credit register, and disclosure of information on risk exposures and stress test results. Regulators could enforce disclosure standards by a penalty capital charge on exposures to noncompliant counterparties. The BIS could expand its banking and derivatives statistics coverage to investment banks, hedge funds, and other institutional investors. The report also emphasizes that supervisors have a role in ensuring sound risk assessment by bank management and that regulation should not encourage inappropriate risk taking. In this context, the paper notes that, according to the current Basel Accord on Capital Adequacy, inter alia, banks' derivative exposures to nonbanks receive only a 50 percent risk weight (implying a 4 percent capital requirement compared with the standard 8 percent for claims on the private sector), that short-dated foreign exchange contracts are zero weighted, and that on-balance-sheet exposures to hedge funds are treated just like any other claim on the private sector.[8] Notwithstanding ongoing efforts toward international coordination, the report points to scope for unilateral action by national regulators, particularly in the United States, with beneficial effects for the global financial system.

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[8]The recent Basel Committee paper on revisions to the Basel Accord (Basel Committee on Banking Supervision, 1999c) suggests abolishing the 50-percent cap on the risk weights of OTC derivative exposures and introducing a new 150 percent risk weight category for poor-quality corporate claims (see Box 4.2).

Supervision of Financial Conglomerates and International Accounting Standards

Supervision of the global financial system is still largely fragmented both functionally and geographically, while global financial markets are becoming increasingly integrated. In response, efforts at international coordination of regulation and supervision (of banks, securities firms, and insurance companies) are being accelerated to improve supervision both across functional lines and across borders. Given the increasing emergence of large global financial conglomerates that are supervised by numerous supervisors of different industries and nationalities, in February 1999, the Joint Forum on Financial Conglomerates issued a set of papers on the *Supervision of Financial Conglomerates* (which had previously been issued for comments in February 1998).[9] The papers cover issues of capital adequacy, fit and proper principles for top management, and the sharing of supervisory information with the objective to work toward a more effective supervisory framework for financial conglomerates that stretches across various lines of business and national borders.

The papers concerning capital adequacy outline measurement techniques and principles to assess capital adequacy on a group-wide basis for financial conglomerates. A paper on fit and proper principles provides guidance for supervisors to assess the competence of the management of the various separate entities of a financial conglomerate. Two papers deal specifically with facilitating information sharing between supervisors of regulated entities within internationally active financial conglomerates by outlining a framework and by providing guiding principles for such information sharing. In certain circumstances it might be beneficial to designate one supervisory agency involved in supervising a conglomerate as a coordinator to facilitate information sharing. One of the papers provides guidance on the choice of a coordinator. It points out that the choice of coordinator and the design of its responsibilities are influenced by the trade-off between the benefits of improved coordination and the risks of creating (or appearing to create) a new layer of supervisory oversight or an extension of a government safety net to normally unprotected entities within a conglomerate.

Although sound loan accounting and disclosure practices are essential to ensure transparency and to facilitate effective supervision and market discipline of financial institutions, national rules and practices on the recognition of deteriorating credit quality vary widely. To address this issue, the Basel Committee on Banking Supervision released a paper on loan valuation, loan-loss provisioning, and credit risk exposure, entitled *Sound Practices for Loan Accounting and Disclosure* (July 1999). The paper complements the Basel Core Principles for Effective Banking Supervision and is designed to advance international

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[9]The Joint Forum on Financial Conglomerates, which comprises representatives of the Basel Committee on Banking Supervision, IOSCO, and the International Association of Insurance Supervisors, as well as national supervisors, was established in 1996.

harmonization in loan valuation and accounting. The paper provides guidance on key loan accounting issues, such as the recognition and valuation of loans, the establishment of loan-loss allowances, and credit risk disclosure.

On accounting standards more generally, the International Accounting Standards Committee (IASC) has been in the process of developing a core set of international accounting standards. In March 1999, it published a comprehensive standard on accounting for financial instruments, including derivatives such as futures, forwards, swaps, and options contracts. The new standard IAS 39 *(Financial Instruments: Recognition and Measurement)* requires that all financial assets and liabilities be recognized on the balance sheet, including derivatives. IAS 39 significantly increases the use of fair-value accounting for financial instruments, and it permits hedge accounting, provided that the hedging relationship is clearly defined, measurable, and actually effective. The Technical Committee of IOSCO has begun its assessment of the standard to decide whether to recommend that IOSCO members permit foreign issuers to use IASC standards in lieu of national standards for cross-border offering and listing purposes.

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