The Federal Reserve Board

Testimony of Governor Laurence H. Meyer

Hedge funds

Before the Subcommittee on Financial Institutions and Consumer Credit, Committee on Banking and Financial Services, U.S. House of Representatives

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I welcome this opportunity to discuss the Federal Reserve's supervisory actions in the aftermath of the near-collapse of Long Term Capital Management (LTCM). Today's hearings cover an important topic. The LTCM incident merits study to ensure that the lessons it provides are sufficiently understood and that constructive action is taken to effectively reduce the potential for similar events in the future, without compromising the efficiency of global capital markets.

The primary issues raised by the LTCM incident appear to revolve around the broad theme of how to control the leverage and risk taking of unregulated financial institutions--in particular, hedge funds--so that they do not become a source of systemic risk or jeopardize taxpayer funds via the federal safety net. In our market-based economy, the discipline provided by creditors and counterparties is the primary mechanism for "regulating" this risk taking. In the case of LTCM, this discipline appears to have been compromised. Weaknesses in several key elements of the risk management processes at some creditors and counterparties were magnified by competitive pressures, resulting in risk exposures that may not have been fully understood or adequately managed. Less-than-robust risk management systems, evidenced by an over reliance on collateral, compromised both the assessment of counterparty creditworthiness and the measurement and control of risk exposures at several financial institutions.

To be sure, the lessons stemming from this episode have not gone unlearned, and there is no lack of effort to identify and implement appropriate public policy and private sector responses to the potential risks posed by hedge funds. These efforts range from private industry and supervisory initiatives aimed at strengthening the credit risk management infrastructures at financial institutions, to consideration of enhanced disclosure by global financial institutions, to those evaluating the costs and benefits of direct regulation of hedge funds.

Efforts to promote market discipline by strengthening the risk management systems of creditors and counterparties offer the most immediate and efficient way to accomplish the desired objective of minimizing the potential for systemic risk arising from the activities of hedge funds. Supervisory oversight of bank risk management practices, including the issuance of guidance on sound practices, reinforces the market discipline entailed in banks' assessment and surveillance of the risks taken by their counterparties. The recent guidance on sound risk management practices issued by the Basle Committee on Bank Supervision, the Federal Reserve, and the Office of the Comptroller of the Currency (OCC) represent significant steps toward achieving the goal of enhancing market discipline. I commend the Subcommittee's efforts to advance public awareness of these efforts by holding today's hearings on this recent supervisory guidance.

Of course, public sector work on promoting more effective market discipline on hedge funds and other entities that might employ leverage is by no means complete. The guidance and other supervisory efforts we are discussing here today target primarily commercial banking institutions. Work underway by the International Organization of Securities Commissions (IOSCO) to issue similar guidance regarding securities firms' relationships with hedge funds is another important step. Although not directly focused on the issue of hedge funds, international efforts to enhance public disclosure of financial institution risk profiles may also provide meaningful input. In this context, the recent consultative paper "Recommendations for Public Disclosure of Trading and Derivatives Activities of Banks and Securities Firms," issued jointly last month by the Basle Committee on Bank Supervision and IOSCO, makes an important contribution to the discussion of possible public policy responses. In the United States, the President's Working Group on Financial Markets is considering a number of issues and policy responses regarding leveraged institutions and their relationships with their counterparties. Its report is expected in the near future.

Despite these various public sector initiatives, the real key to effective market discipline lies in the players themselves--the private sector. The market has clearly learned from the LTCM incident and our supervisory staff has seen significant tightening of credit standards on hedge funds as well as improvements in the risk management processes at major banking institutions. Here, too, much work remains. Accordingly, we look forward to the recommendations of the Counterparty Risk Management Policy Group (CRMPG) regarding private sector initiatives for enhancing the credit risk management practices of creditors and their leveraged counterparties. Subcommittees of this private industry group, comprised of major international banks, securities firms, and hedge funds, are investigating avenues for improving measures of derivative exposures and the exchange of information between counterparties. The findings of the group will reinforce the efforts to promote enhancement of risk management systems at banking institutions and are expected to advance sound practices in key areas such as the type of information that can be exchanged between hedge funds and their counterparties without compromising hedge funds' proprietary information.

Supervisory Efforts by the Federal Reserve in the Aftermath of LTCM

In its role as a bank supervisor, the Federal Reserve's primary contribution to advancing market discipline lies in its responsibility to ensure that the risk management processes at individual banking organizations are commensurate with the size and complexity of their portfolios. We promote the adoption of sound risk management practices through on-site reviews and targeted examinations of banking organizations and by regularly issuing supervisory guidance to both banks and our supervisory staff. This morning I will briefly summarize recent Federal Reserve efforts in both of these areas and will explain how Federal Reserve supervisory guidance provides direction to banking institutions and examiners that supports, and is consistent with, that issued by the Basle Committee on Bank Supervision and the Office of the Comptroller of the Currency. President McDonough's testimony answers the Subcommittee's questions regarding the recent guidance on highly leveraged institutions issued by the Basle Committee on Bank Supervision and the regulation of hedge funds in other developed countries.

Immediately following the LTCM episode, the Federal Reserve detailed staff from the Board of Governors and the Federal Reserve Bank of New York to conduct special reviews at those state-member banks with significant hedge fund relationships to identify:

- the nature and magnitude of bank credit exposures to hedge funds;
- the comprehensiveness of banks' due diligence processes regarding hedge funds;
- the quantitative controls used in managing exposures to hedge funds;
- the adequacy of management information systems and internal controls with regard to hedge fund counterparties; and,
- the extent to which the LTCM relationship was an exception to banks' normal hedge fund relationships.

Our review found that U.S. commercial banking exposures to hedge funds are primarily counterparty exposures arising from OTC derivatives contracts. Overall, direct unsecured loans to hedge funds have traditionally been a small portion of bank lending, even at the larger global institutions. As of the third quarter of 1998, direct, unsecured loans disbursed by all U.S. commercial banks to hedge funds were estimated at $1.7 billion, or approximately one percent of Tier 1 capital of those banking institutions with exposures to hedge funds. This amount represents only direct lending arrangements and includes $170 million in loans dispersed by U.S. banks to LTCM under a $900 million shared national credit facility (most of which was participated to foreign banking organizations). It does not include the $900 million of equity investments in LTCM made by three U.S. banking organizations in September of 1998.

As of the third quarter of 1998, only five U.S. commercial banks had material OTC derivative exposures to hedge fund counterparties. Credit exposures arising from these relationships consisted of the current marked-to-market value of the derivative transactions as well as the potential exposure that might arise from future changes in these market values (the potential future exposure or PFE). All of the banking institutions mark their derivative positions to market on a daily basis and require any net current market value owed to them to be fully collateralized, generally with high quality securities, such as U.S. Treasuries or sovereign debt from G-10 countries. For those hedge funds judged to be of lower credit quality, banks generally require the posting of collateral or margin above current market values to protect against the potential future exposure of derivative contracts with these counterparties.

With regard to LTCM, the review found that the fund was atypical among hedge fund counterparties in both the size of its positions and the amount of leverage it employed. While several hedge funds had larger net asset values (capital) than LTCM and a few funds may have employed the same or comparable book leverage, LTCM's combination of size and leverage was singular.

Investigations of the management of the LTCM account at several institutions found that an over-reliance on the collateralization of the current market value of derivatives positions and the stature of LTCM's managers led to compromises in several key elements of the credit risk management process. In some cases, assessments of LTCM's creditworthiness was found to be less than adequate as a result of limited information on the fund's true risk profile and risk management capabilities. In particular, exposure measures and scenario analyses that could have identified potential losses under stress situations were found to be less than adequate.

Importantly, while LTCM was found to be atypical among hedge fund counterparties, shortcomings in the risk management of hedge fund counterparty exposures appeared to extend beyond this one fund. In several cases, the review team found inadequate counterparty risk management policies and procedures. In others, while formal policies and procedures may have existed, gaps between policy and practices were identified. Specifically, the review team found that the due diligence and ongoing risk assessments of hedge funds were largely qualitative and lacked quantitative rigor. The review also found compromises in the limit systems and credit exposure measurement methodologies employed, including limited use of counterparty exposure stress testing. In particular, measures of the potential future exposures arising from derivative positions with hedge fund counterparties were found in need of significant enhancements at some banks. In general, banks placed undue reliance on the collateralization of current mark-to-market exposures and underestimated the potential exposure that could arise under difficult market conditions.

The findings of this special review served as a primary source for the Basle Supervisory Committee's recent report, "Banks' Interactions with Highly Leveraged Institutions." Federal Reserve staff played a major role in shaping the scope of the Basle documents, drafted significant portions of early versions of the Basle Committee's main paper, and provided significant input into its sound practices paper. President McDonough's testimony discusses, at length, the content of the Basle documents including the sound practices they identify.

The Board of Governors fully endorses both Basle documents. The Basle guidance has been incorporated in Federal Reserve guidance by direct reference in our recent Supervision and Regulation Letter, "Supervisory Guidance Regarding Counterparty Credit Risk Management" (S.R. 99-3). They have been transmitted by the appropriate Federal Reserve Banks to all state-member banks and holding companies with significant hedge fund exposures and to all Federal Reserve staff supervising those institutions. Moreover, the March 1999 update to the Federal Reserve's Trading and Capital Markets Activities Manual will incorporate the specific sound practices identified in the Basle documents in a special hedge fund subsection of its existing Counterparty Credit Risk Management section.

The results of the targeted reviews conducted in the third and fourth quarter of 1998 have been shared with each institution reviewed, and supervisory plans tailored to each institution's particular circumstances have been developed. Supervisory staff is monitoring each bank's management of hedge fund counterparty exposures as well as the bank's efforts to address any identified risk management shortcomings.

I understand that other G-10 bank supervisors have translated the Basle documents into the appropriate foreign language and transmitted them to industry associations and/or institutions with hedge fund relationships. In some cases, supervisors have taken steps to monitor bank hedge fund exposures and bank initiatives to enhance internal counterparty credit risk management systems.

Private Sector Response in the Aftermath of LTCM
As would be expected coming out of the LTCM event and other market difficulties in 1998, banking institutions, in their own self-interest, appear to be well underway in making enhancements to their credit risk management systems. With regard to the due diligence process, banks are requesting and receiving more information from their hedge fund counterparties, such as value-at-risk calculations, position concentrations, aggregate off-balance sheet positions, and the results of stress tests. Banks have also increased the rigor of the due diligence processes applied to hedge fund counterparties, including the use of their

own quantitative risk management specialists to conduct on-site reviews of hedge fund risk management systems. Increasingly, hedge funds recognize that they need to provide their counterparties with more information. All parties are looking for remedies short of having funds disclose specific position information that they feel might compromise the integrity of their proprietary investment strategies. It is expected that a major contribution in this area will be made by the Counterparty Risk Management Policy Group.

Banks are also moving to develop more realistic counterparty credit risk exposure measures including the development of various types of stress testing of their credit risk exposures to major counterparties. Some banks are reviewing their policies regarding how, when, and with what type of counterparties they will require collateralization of potential future exposures.

In general, all of the banks reviewed last year have conducted their own internal assessments of lessons learned and, in their own self-interest, are reassessing their business strategies regarding hedge funds and moving forward to make necessary enhancements to their risk management processes.

Federal Reserve Board Guidance on Counterparty Credit Risk Management
Federal Reserve supervisory guidance that is particularly pertinent to issues surrounding bank relationships with hedge funds was first issued in the Federal Reserve's Trading Activities Manual (TAM), published in 1994. This manual discusses general sound practices for managing the market, credit, legal, liquidity and operating risks involved in bank trading and derivatives activities. The manual also provides guidance in other areas such as accounting, capital requirements, financial performance measurement, ethics and regulatory reporting and compliance. It also provides over 35 individual instrument profiles that describe the risks and supervisory issues involved in each product. Over the years, this manual has come to serve as a definitive industry resource on sound risk management practices as they relate to trading and derivative activities. Revision of the guidance in this manual is an ongoing process. The manual was substantively revised in 1998 and is updated each March and September.

In 1994, the Federal Reserve also issued specific guidance focusing on hedge funds. Both this specific guidance and our manual emphasize the importance of sound financial analysis of counterparties that can quickly adjust their risk profiles.

In reviewing the 1998 financial performance of large banking institutions, a number of general lessons on how, where, and why breakdowns in risk management processes can occur have been re-emphasized to both banks and bank supervisors. As has been the case in most instances of bank losses, competition, the pursuit of earnings, and the general press of business often result in the introduction of risk exposures for which existing risk management infrastructures may not be sufficient. Moreover, breakdowns in risk management most often arise in product, customer, and business lines that experience significant growth and above normal initial profitability.

In an effort to emphasize the importance of some of the general lessons highlighted by events over the past two years and to advance the application of these lessons in the interests of avoiding future difficulties in other areas, the Federal Reserve issued its supervisory letter on counterparty credit risk management on February 1 of this year to provide general guidance. The guidance is aimed at providing supervisors and bank management insights on those elements of counterparty credit risk management systems at large complex banking organizations that may need special review and enhancement in light of the rapid changes taking place in banking and financial markets. The guidance is targeted at relationships with *all* types of bank counterparties, including hedge funds. It reiterates and expands upon fundamental principles of counterparty credit risk management that are covered in existing supervisory materials of the Federal Reserve and other regulators, and in established industry standards. It emphasizes areas that, while generally understood for several years, have become increasingly important given the global linkages of financial markets. In particular, the important inter-relationships between market and credit risks and their effect on the magnitude of derivative counterparty exposures, especially in times of stress, is an increasingly important area that merits the attention of all banks engaged in derivative activities. Accordingly, this issue is discussed at length in our recent guidance.

From a broad perspective, the guidance advises banking institutions to focus sufficient resources on ensuring the adequacy of *all* elements of their counterparty credit risk management systems, especially for activities, business lines and products experiencing significant growth, above normal profitability or risk profiles, and large potential future exposures. Recognizing that strong internal controls and internal audit functions are the first line of defense in avoiding problems, the guidance also advises institutions to ensure that internal audit and independent risk management functions focus on growth, profitability and risk criteria in targeting their reviews. Institutions are also advised to calibrate their credit risk management policies and procedures to the risk profiles of specific types of counterparties and instruments. Too often, general policies and procedures developed to cover all types of counterparty exposures can lead to important gaps in the assessment of risks to specific types of counterparties.

The guidance specifically addresses four basic elements of counterparty credit risk management systems: the assessment of counterparty creditworthiness; credit risk exposure measurement; the use of credit enhancements and contractual covenants; and credit risk exposure limit-setting and monitoring systems. With regard to the assessment of counterparty creditworthiness, the guidance points out the need for policies and procedures that are tailored to the risk profiles of counterparties and for internal controls that ensure actual practices conform with these policies. In complying with this guidance in the context of their hedge fund relationships, banks are expected to have specific policies for assessing the unique risk profiles of hedge funds, including the scope of due diligence analysis and ongoing monitoring to be conducted, the type of information required from hedge fund counterparties, and the nature of stress testing used in assessing credit exposures to hedge funds. As mentioned above, the Federal Reserve has adopted the Basle Committee's recent guidance on sound practices governing bank relationships with hedge funds and expects that banks' internal policies regarding their hedge fund relationships will be brought into compliance with those sound practices.

In the area of exposure measurement, the Federal Reserve's guidance also points out that potential future exposure measures are becoming more important in managing the credit exposures of derivatives positions. Accordingly, institutions must ensure that potential future exposures for both secured and unsecured positions are measured realistically and are better incorporated into measurement and limit systems. It also advises institutions to step-up existing programs to enhance credit risk exposure measures by incorporating netting and portfolio effects. The need for better stress testing and scenario analysis of credit exposures that incorporates the interaction of credit and market risks is also identified. In essence, the guidance points to the need for a better balance between the qualitative and quantitative elements of exposure assessment and management for all types of counterparties.

Conformance of Federal Reserve Supervisory Guidance with Other Supervisors
The development of supervisory guidance on sound risk management, like industry practices, is an evolutionary process enhanced by experience. It could be argued that, to a large extent, the fundamental principles of assessing counterparty credit risks, the measuring and stress testing of the potential future exposures of derivative positions, and the dangers of over-reliance on collateral have been well documented in supervisory guidance for several years. However, given advances in technology and the increasing pace of financial innovation and market interdependency, the techniques and means used to implement these principles are under constant development and refinement. Accordingly, supervisors must endeavor to ensure that their guidance is as up-to-date as possible.

As mentioned above, our most recent guidance both re-emphasizes and supplements existing Federal Reserve Board principles and guidelines. Although different supervisors start from different bases of existing guidance, we believe the current body of Federal Reserve guidance on the risk management of trading, derivatives, and other capital markets activities is entirely consistent with that issued over the years by the Basle Committee on Bank Supervision and by other U.S. bank regulators.

The recent guidance released by the Basle Committee, "Sound Practices for Interactions with Highly Leveraged Institutions (HLIs)," covers the same material and provides the same direction to supervised institutions for a specific type of counterparty as that addressing all types of counterparties contained in existing Federal Reserve guidance. Moreover, as was mentioned above, the specific Basle guidance has been fully incorporated in the soon to be released updates to our Trading and Capital Markets Activities Manual.

In addition, existing Federal Reserve guidance is also consistent with that issued by the OCC. In its most recent supplemental guidance to Banking Circular 277 and the Comptroller's Handbook for National Bank Examiners, the Comptroller identifies thirteen lessons learned from events over the past two years. Although Federal Reserve guidance on trading and derivative activities may use different formats, it conveys the same direction and sound practices to supervised institutions embodied in each of these thirteen lessons. For example, the Comptroller's recent guidance discusses the need for senior management and board of directors to understand the limits of their price risk measurement systems and goes on to emphasize the need for stress testing such exposures. Supervisory guidance of the Federal Reserve has long advised of the importance of stress testing market risks and the conveyance of these reports to senior management and the board of directors so that they can fully understand the institution's risk exposure and adjust risk tolerances accordingly. Our most recent guidance on the measurement of potential future exposures and stress testing supplements this prior guidance.

Perhaps the most importance guidance emphasized by the Federal Reserve and the OCC is that which advises banks and examiners to ensure that sufficient risk management targeted at new, growing, and highly profitable activities. As mentioned above, such areas have been the source of most bank losses.

In summary, the Federal Reserve believes that its existing supervisory guidance on trading and derivatives activities at state-member banks and bank holding companies is entirely consistent with, and complementary to, that of the Basle Committee on Bank Supervision and the OCC. Together, this supervisory guidance offers a clear set of sound practices that, when implemented appropriately, serves to enhance and support market discipline by strengthening the risk management processes of major creditors and counterparties.

Supervisory Lessons Learned

Events in developing and developed financial markets and the various types of losses posted by banking institutions over the past two years, including recent events surrounding bank hedge fund relationships, have also provided supervisors and examiners with important lessons. From one perspective, we would like to think that effective supervision contributed to the ability of U.S. institutions to weather the financial storms of the past two years. Our reviews indicated and the financial results illustrate that, while the LTCM incident and other episodes over the past two years may have significantly impacted earnings, they did not threaten the solvency of any U.S. commercial banking institution.

Still, our review of our own performance suggests room for enhancements on our part. Within the context of the Federal Reserve's risk-focused approach to supervision, major counterparty exposures are generally reviewed during both regular and targeted reviews of banks' derivatives and counterparty credit risk systems. Our internal reviews found several cases where examiners, like banking institutions, may have placed too much emphasis on the full collateralization of current exposures. In the past, examiners have generally focused supervisory resources on assessing the risks entailed in unsecured credit exposures. Moving forward, our guidance instructs examiners to incorporate measures of potential future exposure in stratifying samples and selecting counterparties and transactions upon which to base targeted testing of practices and internal controls, regardless of the collateralization of current market value exposures. Examiners are also instructed to review the results and adequacy of an institution's stress testing and scenario analyses in assessing both the magnitude and management of credit exposure.

The need to emphasize in-depth transaction testing is another important supervisory lesson learned (or relearned) in the LTCM case, and this is emphasized in our supervisory guidance. The increasing complexity of financial markets and banking activities places a premium on focusing supervisory resources at high risk areas and conducting sufficient transaction testing to identify variances between policy and practice. Increasingly this involves conducting transaction testing with highly qualified specialists. Targeting resources at retaining, recruiting and developing such specialists as well as providing them automated tools to enhance their efficiency and effectiveness is a top supervisory priority at the Federal Reserve.

Closing

In closing, I would like to emphasize the significant amount of attention that the LTCM incident, in particular, and bank relationships with hedge funds, in general, have received, and continue to receive, from both public and private venues. Although market discipline may not have worked in preventing the LTCM event in the first place, the marketplace has reacted appropriately and we have learned much to carry us forward. Banks and securities firms, in their own self-interest, have tightened their risk management processes as they relate to hedge funds. Hedge funds now face a new reality of tougher counterparty oversight. Supervisors are also enhancing their oversight of banks' hedge fund exposures. The supervisory guidance issued by the Basle Supervisors Committee, the OCC, and the Federal Reserve represent an effective, quick, and needed response to an important issue.

This guidance effectively reinforces private sector initiatives to enhance counterparty credit risk management processes. As I mentioned at the outset, even more work needs to be done to ensure that the lessons we have learned over the past two years become engrained in standard practice and to ensure that effective market discipline is brought to bear on the risk taking of hedge funds and other entities that make use of significant financial leverage. In particular, we look forward to the reports and recommendations of the Counterparty Risk Management Policy Group that will provide additional practical tools for implementing both industry and supervisory sound practices in counterparty credit risk management.

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