Ben S Bernanke: Hedge funds and systemic risk

Remarks by Mr Ben S Bernanke, Chairman of the Board of Governors of the US Federal Reserve System, at the Federal Reserve Bank of Atlanta's 2006 Financial Markets Conference, Sea Island, Georgia, 16 May 2006.

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Thank you for inviting me to speak today. In keeping with the theme of this conference, I will offer some thoughts on the systemic risk implications of the rapid growth of the hedge fund industry and on ways that policymakers might respond to those risks.

The collapse of Long-Term Capital Management (LTCM) in 1998 precipitated the first in-depth assessment by policymakers of the potential systemic risks posed by the burgeoning hedge fund industry. The President's Working Group on Financial Markets, which includes the Federal Reserve, considered the policy issues raised by that event and, in 1999, issued its report, *Hedge Funds, Leverage, and the Lessons of Long-Term Capital Management*. The years since then have offered an opportunity to consider whether the Working Group's recommendations for addressing those issues have been effective and whether new concerns have arisen that warrant an alternative approach.

LTCM and the Working Group's recommendations

As the title of the report indicated, the Working Group focused on the potential for leverage to create systemic risk in financial markets. The concern arises because, all else being equal, highly leveraged investors are more vulnerable to market shocks. If leveraged investors default while holding positions that are large relative to the markets in which they have invested, the forced liquidation of those positions, possibly at fire-sale prices, could cause heavy losses to counterparties. These direct losses are of concern, of course, particularly if they lead to further defaults or threaten systemically important institutions; but, in addition, market participants that were not creditors or counterparties of the defaulting firm might be affected indirectly through asset price adjustments, liquidity strains, and increased market uncertainty.

The primary mechanism for regulating excessive leverage and other aspects of risk-taking in a market economy is the discipline provided by creditors, counterparties, and investors. In the LTCM episode, unfortunately, market discipline broke down. LTCM received generous terms from the banks and broker-dealers that provided credit and served as counterparties, even though LTCM took exceptional risks. Investors, perhaps awed by the reputations of LTCM's principals, did not ask sufficiently tough questions about the risks that were being taken to generate the high returns. Together with the admittedly extraordinary market conditions of August 1998, these risk-management lapses were an important source of the LTCM crisis.

The Working Group's central policy recommendation was that regulators and supervisors should foster an environment in which market discipline--in particular, counterparty risk management--constrains excessive leverage and risk-taking. Effective market discipline requires that counterparties and creditors obtain sufficient information to reliably assess clients' risk profiles and that they have systems to monitor and limit exposures to levels commensurate with each client's riskiness and creditworthiness. Placing the onus on market participants to provide discipline makes good economic sense; private agents generally have strong incentives to monitor counterparties as well as the best access to the information needed to do so effectively.

For various reasons, however, creditors may not fully internalize the costs of systemic financial problems; and time and competition may dull memory and undermine risk-management discipline. The Working Group concluded, accordingly, that supervisors and regulators should ensure that banks and broker-dealers implement the systems and policies necessary to strengthen and maintain market discipline, making several specific recommendations to that effect. The Working Group's recommendations on this point have largely been followed. Domestically, regulatory authorities issued guidance on risk-management practices, and bank supervisors now actively monitor and conduct targeted reviews of banks' dealings with hedge funds. The Securities and Exchange Commission (SEC) intensified its risk-management inspections of the larger broker-dealers after LTCM. Internationally, both the Basel Committee on Banking Supervision and the International Organization of Securities Commissions produced papers on sound practices in dealings with highly leveraged institutions, and the Basel Committee conducted a series of follow-up studies.

An alternative policy response that the Working Group considered, but did not recommend, was direct regulation of hedge funds. Direct regulation may be justified when market discipline is ineffective at constraining excessive leverage and risk-taking but, in the case of hedge funds, the reasonable presumption is that market discipline can work. Investors, creditors, and counterparties have significant incentives to rein in hedge funds' risk-taking. Moreover, direct regulation would impose costs in the form of moral hazard, the likely loss of private market discipline, and possible limits on funds' ability to provide market liquidity.

In focusing on counterparty risk management in its recommendations, the Working Group did not intend to prevent failures in the hedge fund industry. Hedge funds offer their investors high prospective returns but also high levels of risk. Experienced investors know, or should know, that in any given year some hedge funds lose money for their investors and some funds go out of business. Those occurrences are only normal and to be expected in a competitive market economy. The Working Group's recommendations were aimed, instead, at ensuring that when hedge funds fail, as some inevitably will, the effects will be manageable and the potential for adverse consequences to the broader financial system or to real economic activity will be limited.

Effectiveness of the Working Group's approach

Has the approach proposed by the President's Working Group worked? Any answer must be provisional, but, to date, it apparently has been effective. Since the LTCM crisis, ongoing improvements in counterparty risk management and the resultant strengthening of market discipline appear to have limited hedge fund leverage and improved the ability of banks and broker-dealers to monitor risk, despite the rapidly increasing size, diversity, and complexity of the hedge fund industry. Many hedge funds have been liquidated, and investors have suffered losses, but creditors and counterparties have, for the most part, not taken losses. The general perception among market participants is that hedge funds are less highly leveraged today than in 1998 though, to be sure, meaningful and consistent measurements of leverage are not easy to come by and many newer financial products embed significant leverage in relatively nontransparent ways.

According to bank supervisors and most market participants, counterparty risk management has improved significantly since 1998. Some of this progress is due to industry-led efforts, such as two reports by the Counterparty Risk Management Policy Group (CRMPG) that lay out principles that institutions should use in measuring, monitoring, and managing risk. Reviews conducted by bank supervisors in 2004 and 2005 indicated that banks have become more diligent in their dealings with hedge funds. In most cases, substantial resources have been devoted to expanding and improving the staffing of the risk-management functions related to hedge fund counterparties. Dealers universally require hedge funds to post collateral to cover current credit exposures and, with some exceptions, require additional collateral, or initial margin, to cover potential exposures that could arise if markets moved sharply. Now, risk managers can more accurately measure their current and projected exposures to hedge fund counterparties, and more firms use stress-testing methodologies to assess the sensitivity of their exposures to individual counterparties if the market moves substantially.

Despite this progress, some concerns about counterparty risk management remain and may have become even more pronounced given the increasing complexity of financial products. I will note four of these concerns. First, hedge funds are profitable customers for dealers, and our supervisors are concerned that competition for hedge fund business has eroded initial margin levels. Second, given the increasing volume of complex transactions with hedge funds, we are also concerned whether counterparty exposures in such complex transactions are being measured accurately. Supervisors are monitoring banks with these issues in mind. Third, our supervisors are concerned that more extensive stress-testing should be done. Although stress-testing of exposures at the level of the individual hedge fund counterparty is becoming more common, still-wider application of this technique would be useful. Similarly, aggregate stress tests--by which a dealer evaluates its exposure to the hedge-fund sector in the event of a large market move--merit wider use. Aggregate stress tests are a desirable complement to stress tests of individual hedge fund counterparties because funds sometimes imitate each others' strategies or choose strategies that are affected by common market factors. Supervisors are encouraging the expanded use of stress-testing when it is appropriate. Fourth, supervisors are concerned that the assessment of counterparty risks should be better tied to the amount of transparency offered by hedge funds. In particular, good risk management should link the availability and the terms of credit granted to a hedge fund to the fund's willingness to provide information on its strategies and risk profile. Our supervisors are pushing banks to clearly link transparency with credit terms and conditions.

Since the Working Group report was issued, hedge funds have greatly expanded their activities and strategies, and their interactions with counterparties and creditors have accordingly become more complex. The continuing challenge for supervisors, counterparties, and hedge funds is to ensure that rigorous and appropriate methods of risk management are brought to bear even as institutions, instruments, and markets change. Two recent challenges of note are the spread of prime brokerage services and the emergence of operational issues in the settling of trades in newer types of over-the-counter (OTC) derivatives, particularly credit derivatives.

Hedge funds have long used arrangements that allow them to execute trades with several dealers but then to consolidate the clearing and settlement of their trades at a single firm, the "prime broker." The prime broker typically provides financing and back-office accounting services to the hedge fund as well as settlement services. In the past couple of years, prime brokerage has expanded beyond cash trades for securities to include foreign exchange and OTC derivative trades, and more firms are offering prime brokerage services.

Prime brokerage poses some unique challenges for the management of counterparty credit and operational risk. Prime brokers must ensure that they have adequate information and controls to protect against counterparty credit risk arising both from the client and from the executing dealer. They also must implement internal controls to monitor and track transactions executed as part of the prime brokerage agreement and to ensure that the transactions meet the terms of the agreement. Supervisors of firms that offer prime brokerage services, particularly supervisors of new entrants, must ensure that the firms are fully aware of the risks involved and effectively manage them.

The proliferation of new financial products also poses risk-management challenges, including challenges on the operational side. For example, trading in credit derivatives has grown dramatically in recent years, and firms have had difficulties in processing and settling these and other OTC derivative trades in a timely way. These problems are not limited to hedge funds but affect all participants in the OTC derivatives market and all dealers in credit derivatives. Recently, supervisors in several jurisdictions, working with the Federal Reserve Bank of New York, have pushed firms to improve their processes for confirming and assigning trades. So far, good progress has been made, with private-sector participants meeting most of their objectives for reducing backlogs. Commitments are in place to effect still further improvement.

A noteworthy feature of these efforts is the cooperation among authorities. The Federal Reserve has devoted more effort in recent years to maintaining a dialogue with international supervisors, such as the U.K. Financial Services Authority, and we will continue to do so. Domestically, the Federal Reserve is coordinating with the SEC, which is the primary regulator of several large firms that deal in OTC derivatives or engage in prime brokerage activities.

Proposals for creating a database of hedge fund positions

Following the LTCM crisis and the publication of the Working Group's recommendations, the debate about hedge funds and the broader effects of their activities on financial markets abated for a time. That debate, however, has now resumed with vigor--spurred, no doubt, by the creation of many new funds, large reported inflows to funds, and a broadening investor base. Renewed discussion of hedge funds and of their benefits and risks has in turn led to calls for authorities to implement new policies, many of which will be topics of this conference. I will briefly discuss one of these proposals: the development of a database that would contain information on hedge-fund positions and portfolios.

It is commonly observed that hedge funds are "opaque"--that is, information about their portfolios is typically limited and infrequently provided. It would be more accurate to say that the opacity of hedge funds is in the eye of the beholder; the information a fund provides may vary considerably depending on whether the recipient of the information is an investor, a counterparty, a regulatory authority, or a general market participant. From a policy perspective, transparency to investors is largely an issue of investor protection. The need for counterparties to have adequate information is a risk-management issue, as I have already discussed. Much of the recent debate, however, has focused on the opacity of hedge funds to regulatory authorities and to the markets generally, which is viewed by some as an important source of liquidity risk. Liquidity in a particular market segment might well decline sharply and unexpectedly if hedge funds chose or were forced to reduce a large exposure in that segment.

Concerns about hedge fund opacity and possible liquidity risk have motivated a range of proposals for regulatory authorities to create and maintain a database of hedge fund positions. Such a database, it is argued, would allow authorities to monitor this possible source of systemic risk and to address the buildup of risk as it occurs. Various alternatives that have been discussed include a database maintained by regulators on a confidential basis, a system in which hedge funds submit position information to an authority that aggregates that information and reveals it to the market, and a public database with nonconfidential information on hedge funds.

I understand the concerns that motivate these proposals but, at this point, remain skeptical about their utility in practice. To measure liquidity risks accurately, the authorities would need data from all major financial market participants, not just hedge funds. As a practical matter, could the authorities collect such an enormous quantity of highly sensitive information in sufficient detail and with sufficient frequency (daily, at least) to be effectively informed about liquidity risk in particular market segments? How would the authorities use the information? Would they have the authority to direct hedge funds or other large financial institutions to reduce positions? If several funds had similar positions, how would authorities avoid giving a competitive advantage to one fund over another in using the information from the database? Perhaps most important, would counterparties relax their vigilance if they thought the authorities were monitoring and constraining hedge funds' risk-taking? A risk of any prescriptive regulatory regime is that, by creating moral hazard in the marketplace, it leaves the system less rather than more stable.

A system in which hedge funds and other highly leveraged market participants submit position information to an authority that aggregates that information and reveals it to the market would probably not be able to address the concern about liquidity risk. Protection of proprietary information would require so much aggregation that the value of the information to market participants would be substantially reduced. Timeliness of the data would also be an issue.

A public database of nonproprietary information could provide the public with a general picture of hedge-fund activity without creating the false impression that the authorities were engaged in prudential oversight of hedge funds. Such a public database might demystify hedge funds, but it would not address the central policy concern that opacity creates liquidity risk.

I expect discussion and analysis of the potential costs and benefits of increased disclosures will continue, as well as suggestions about how such disclosures might be structured and disseminated. The important challenge is to structure any disclosures in a way that does not generate moral hazard or weaken market discipline.

Conclusion

In the final analysis, authorities cannot entirely eliminate systemic risk. To try to do so would likely stifle innovation without achieving the intended goal. However, authorities should (and will) try to ensure that the lapses in risk management of 1998 do not happen again. Private market participants, too, have their role to play in ensuring that such lapses do not recur. The principles articulated in the CRMPG's reports are a good starting place for firms, and senior management should rigorously assess their operations against those principles and commit the resources to address deficiencies. Authorities' primary task is to guard against a return of the weak market discipline that left major market participants overly vulnerable to market shocks. Continued focus on counterparty risk management is likely the best course for addressing systemic concerns related to hedge funds. This public policy approach does not entail the moral hazard concerns created by authorities' monitoring of positions using a private database. Rather, a focus on counterparty risk management places the responsibility for monitoring risk squarely on the private market participants with the best incentives and capacity to do so.