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HEDGING THE RISK

By Michael Atz*

Do well-publicized reversals at certain hedge funds signal that banks should strictly avoid this industry? The answer is no. But that doesn't mean banks can let down their guard. To protect clients, themselves and the integrity of the overall financial system, they must recognize and manage all of the risks in dealing with hedge funds. That requires a substantial ongoing commitment.

Much of the publicity surrounding hedge funds has centered on the travails encountered by some of the largest players that used the "macro" strategy, which bets on the overall direction of various world markets. The potential volatility of this approach was underscored in 1998 by the Long Term Capital Management crisis, whose resolution required the participation of federal banking regulators. More recently, the delicate unwinding of positions required at Tiger Management and Soros Fund Management, both macro funds, sent a fresh reminder about liquidity risk.

It is no wonder, then, that some observers question whether banks should be doing business with hedge funds, which combine individual equity with borrowed money to pursue a variety of sophisticated investing strategies. Commercial banks are intertwined with hedge funds in numerous ways, and this close relationship arguably increases the vulnerability of the financial system.

But the macro funds were never the only game in town, and their presence has waned even as other hedge fund strategies have proliferated. Attesting to the continued vitality of this industry, recent published reports peg domestic and offshore hedge fund assets at more than \$300 billion. The Credit Suisse First Boston/Tremont hedge fund index has more than doubled in value since the start of 1994.

There are hundreds of active hedge funds requiring all manner of ancillary financial services, and this spells opportunity for banks, whose underwriting and risk management skills stand them in good stead. Banks can prosper by lending to hedge funds, acting as counterparties on derivative contracts and earning client referral fees. Under certain circumstances, they also can harvest lucrative returns by investing in venture capital hedge fund deals.

The catch, however, is that participating financial institutions must adroitly manage the risks. Along with credit risk on loans to hedge funds, banks also face reputation risk. Hedge funds that make use of exotic derivatives are subject to potentially explosive volatility during market upheavals. And participants cannot rule out potential exposure to litigation.

* The views expressed are the author's and do not necessarily reflect the views of management of the Federal Reserve Bank of Chicago or the Federal Reserve System.

To strengthen their position, banks should develop systematic practices for assessing the consultants who normally act as intermediaries in bringing clients into funds, and they should require fund managers to periodically produce best-case/worst-case performance projections that shed light on investor and institutional exposure. Banks also should play a lead role in evaluating hedge fund performance and liquidity. And they should compile more information on hedge fund derivative contracts that are thinly traded, and on which the banks themselves act as counterparties.

Close Connections

Not all hedge funds are alike, of course, and it's important to understand the various strategies and their risk/reward characteristics. Macro funds, for example, use both leverage and derivatives to accentuate exposure to broad market moves such as changes in interest and currency exchange rates. Their expected volatility is very high. "Short-sell" funds, which sell borrowed securities in anticipation of repurchasing them later at lower prices, also are rated highly volatile.

By contrast, medium volatility is generally assigned to "opportunistic" funds, which seek to profit from events, such as initial public offerings, temporary performance slumps, and hostile takeover bids. And low volatility is assigned to a "fund of funds," whose resources are diversified among a variety of hedge funds. All in all, there are at least 10 major styles of hedge fund investing, so understanding their varied approaches and risk characteristics is essential in shaping the involvement of an institution and its clients.

In fact, there are many ways that banks interact with hedge funds and a variety of issues – including client involvement – to monitor. The most basic activity is providing loans and lines of credit, and the question here is one of leverage. The greater the proportion of borrowings used by a hedge fund, the greater the lender exposure in a reversal. Fund leverage has been trending downward over the past year, according to published reports.

Separately, banks with extensive trading operations can often find themselves invested in some of the same instruments as the hedge funds that borrow from them. The common pursuit is yield, obviously, but because of this linkage, banks can frequently expose themselves unknowingly to higher hedge fund risks. One counter-balance is that bank trading is subject to risk-based regulatory capital requirements that have the effect of limiting the amount of exposure institutions can assume.

Meanwhile, Section 20 subsidiaries (banking units authorized by the Federal Reserve to engage in financial market activities such as underwriting) may invest in hedge funds as participant venture capitalists in private placements. The more than 50 Section 20 subsidiaries currently in operation may also invest through a fund of funds, which diversifies investments and risks over many hedge fund styles while potentially preserving returns.

Elsewhere within the bank, investment advisors may solicit qualifying private clients as investors in private placement transactions with hedge funds. Advisors can earn higher fees by doing this, but they have to stay on their toes. Managing hedge fund positions for clients is a much more dynamic exercise than, say, managing positions in a mundane bond portfolio. In a separate type of activity, a bank's broker/dealer may execute trades on behalf of hedge fund participants. Finally, commercial banks frequently serve as derivative counterparties to hedge funds.

Many of the banks that routinely do business with hedge funds are based in New York, and as the above examples show, the cumulative interaction can be quite significant. This highlights the need for a systematic approach to the business, beginning with a clear identification of the various kinds of risks.

Credit risk. This is the most basic type of bank risk exposure to a hedge fund. The theoretical underpinnings of a hedge fund's risk profile are its investing style and the amount of operating leverage. Some hedge fund styles have inherently greater expected volatility and, therefore, less predictable returns. And some, obviously, are better managed than others. All of which argues for a comprehensive understanding of credit exposure.

Reputation risk. Guilt by association is the fundamental link between a financial institution and a hedge fund. The power of perception is such that if a fund is seen as under-performing peers by a wide margin, financial institutions must distance themselves from the fund or risk being lumped in to the same category. Several well-known East Coast banks have longstanding ties with hedge funds, as both lenders and investors. When these hedge fund investments begin to sour, investors immediately mark down the value of the stock of those banks that have dealings with these funds. Before its merger with Deutsche Bank, Bankers Trust Corp. was an example of a banking company conspicuously linked with hedge funds and their vacillating fortunes.

Market pricing risk. Hedge funds sometimes acquire substantial positions in over-the-counter derivatives that are not actively traded. Often, positions reach such proportions that prices become highly variable if an entire position needs to be liquidated quickly. In practice, that means that only a small percentage of the position can be moved at prevailing prices, and the remainder may require sharp markdowns to be sold. At times, supply imbalances can become public knowledge, also forcing substantial markdowns. Bid and ask spreads also frequently widen during these periods.

Counterparty risk. This is not to be taken lightly. Representatives from both the Federal Reserve Board and the Federal Reserve Bank of New York conducted special reviews of U.S. commercial banks with significant exposures to hedge funds in early 1999. They found that the primary commercial bank exposure to hedge funds lies with counterparty risks arising from OTC derivative contracts.

Legal risk. The majority of people who invest in hedge funds are thought to have the financial wherewithal to handle the attendant risks, reducing the odds for successful

investor litigation following performance reversals. But the courts may be more sympathetic to suits lodged against fiduciaries by other classes of disappointed hedge fund investors who have fewer individual resources and/or more political muscle. That's another reason for banks to exercise care in steering clientele into such vehicles.

One of the largest public pension plans in the world is the California Public Employees Retirement System. In their recent supplement on hedge funds, the magazine *Futures & OTC World* reported that "Calpers" would allocate close to \$10 billion of the more than \$160 billion currently under its management into alternative investments, including hedge funds. Since "Calpers" investors are predominately public employees, the circumstances and outcomes of their hedge fund investments may come under closer legal scrutiny.

Liquidity risk. More data about hedge fund performance is becoming available to the investing public, especially over the Internet, and this increases the odds for concerted attempts by investors to cash out when a fund stumbles. As a practical matter, mass redemptions are impossible to accommodate, meaning that investors in a beleaguered fund often must wait months before getting even partial recoveries. Banks can't afford to be the last to know that a hedge fund into which they steered clients is suffering a crisis of confidence.

Evaluating Performance

There are a number of steps that banks can take to protect themselves and their clients. One is to develop a sound methodology to assess consultants, who play a key role in raising equity investments for hedge funds by bringing in qualified clients. Before referring customers to such consultants, banks would want to ensure that the advisors are making suitable hedge fund investment recommendations. Consultants also should be proactive in monitoring hedge fund performance on behalf of investors. Meanwhile, banks should not limit client referrals to just a few select hedge funds, but rather should seek to provide a broad array of investment alternatives that allow for diversification. And they should not leave suitability questions strictly in the hands of outside consultants. Banks too should assess clients' preferences and risk tolerance and work to steer them into appropriate investment vehicles.

The quality of direct interaction between banks and hedge funds also is critical. Periodically, banks should require hedge fund managers to produce scenario analyses that outline best-case, worse case, and most likely performance outcomes. With this information, bankers can help investors determine their potential returns and level of volatility and select the fund categories best suited to their risk tolerance. Institutions can also better gauge their own exposure as lenders, investors, and counterparties.

Banks should play a principal role in evaluating hedge fund performance and liquidity. Those banks that do the best job of retrieving and analyzing hedge fund information will be the most successful at managing such relationships.

As part of this, it is especially important that institutions comprehend various hedge fund derivatives strategies and their implications. Banks should require better performance and portfolio data from hedge fund counterparties. Risk management tools should be appropriate for the activities of the hedge fund in question. Also, the advent of same-day pricing has increased client sensitivity to short-term market fluctuations, heightening the need for scrutiny of hedge funds that have more leverage and volatility.

Ongoing due diligence, both qualitative and quantitative, should be the order of the day. In an environment where historical returns often are no indication of future performance, those banks that can probe hedge funds and detect early warning signs of turbulence will be most highly sought by clients – and best prepared to protect their own institutional interests.

Finally, institutions must follow through, and this often is the defining factor in managing hedge fund relationships. It's easy to verbalize best practices – to affirm that banks can mitigate hedge fund exposures with strong risk-management policies and procedures, and that due diligence in understanding how hedge funds work is essential. It's another thing to put ideas into practice. According to one senior official on the Federal Reserve Board, many bankers got entangled with Long Term Capital Management simply because they failed to follow their own risk management policies.

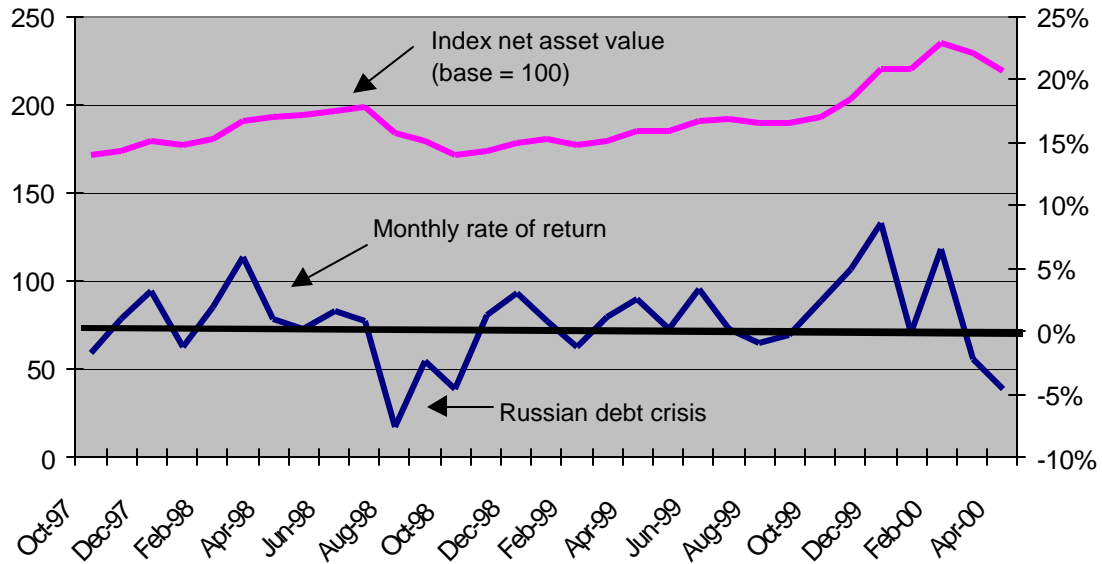
REFERENCES

- 1) Behrmann, Neil (November 12, 1999), "A Primer on the World of Hedge Funds", *The Wall Street Journal via Dow Vision*.
- 2) Behrmann, Neil (October 1, 1999), "Money Matters: It's Bear Season, Here are Some Pointers on Hedging," *The Wall Street Journal Europe via Dow Vision*.
- 3) Edwards, Franklin R., "Hedge Funds and the Collapse of Long-Term Capital Management", *Journal of Economic Perspectives*, Volume 13, Number 2, spring 1999, 189-210.
- 4) Erwin, Susan C., (August/September 1999), "Hedge Fund Scrutiny Continues", *Futures Industry*, 18-21.
- 5) Friedman, Dion, Chairman, Magnum Funds "Hedge Fund Strategies"
www.thehfa.org/hfstrat.html
- 6) Fung, William and David A. Hsieh, (March 1999), "A Primer on Hedge Funds", Fuqua School of Business, Duke University.
- 7) Leuchter, Miriam, (February 1999), "Who Will Prune Hedge Funds?", *US Banker*, 12.
- 8) Meyer, Laurence H., Testimony Before the Subcommittee on Financial Institutions and Consumer Credit, Committee on Banking and Financial Services, U.S. House of Representatives, dated March 24, 1999. Re: Hedge funds. (www.federalreserve.gov/boarddocs/testimony).
- 9) Osterberg, William P. and James B. Thomson, (May 1, 1999), "The Truth about Hedge Funds", *Economic Commentary*, Federal Reserve Bank of Cleveland.
- 10) Schroeder, Michael (December 17, 1999), "Regulators Report That Hedge Funds May Be Required to Boast Disclosures", *The Wall Street Journal via Dow Vision*.
- 11) Smith, Randall (June 22, 1999), "Leaders Urge Dealers to Get More Data on Leveraging", *The Wall Street Journal Europe via Dow Vision*.
- 12) -----Bureau of National Affairs, Inc. Washington D.C., Volume 73 No. 7., Dated August 23, 1999, Re: Hedge Fund Disclosure Bill Targeted for September Introduction.
- 13) ---In the Business December 9, 1999, Soros Returns to Form by Managed Account Reports "MAR" www.marhedge.com/mar/frconten.htm.

- 14) -----SR-99-3 (SUP) (February 1, 1999) “Supervisory Guidance Reporting Counterparty Credit Risk Management” Board of Governors of the Federal Reserve System Division of Banking Supervision and Regulation.
- 15) -----To Create Marketplace Where Hedge Funds are Valued Real Time with S&P Daily Risk Reports, www.PlusFunds.com.
- 16) -----Definitions of Hedge Funds, What is a Hedge Fund?
www.hedgefundcenter.com
- 17) -----Hedge Funds- An Introduction by Alternative Investment Management Association (“AIMA”) www.aima.org
- 18) -----Hedge Funds, Leverage, and the Lessons of Long-Term Capital Management, Report of The President’s Working Group on Financial Markets, April 1999.
- 19) -----Improving Counterparty Risk Management Practices by the Counterparty Risk Management Policy Group, June 1999.

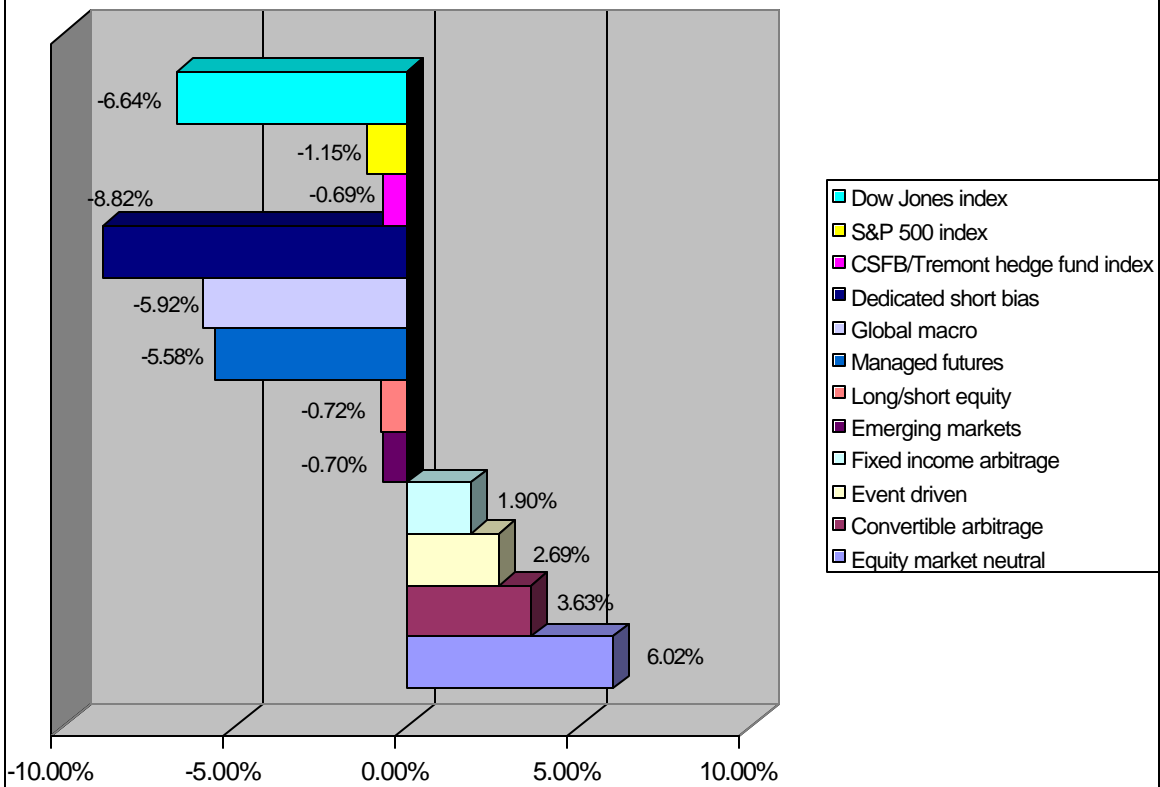
Hedge Funds Have Exhibited Short-Term Volatility but Delivered Strong Returns over Time

Source: Credit Suisse First Boston/Tremont Index



Returns for the First Four Months of 2000 for Various Hedge Fund Strategies

Source: Credit Suisse First Boston/Tremont Index



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