

Federal Reserve Bank of Cleveland

The Truth about Hedge Funds

by William P. Osterberg and James B. Thomson

The highly publicized problems of Long Term Capital Management (LTCM) in 1998 have once again focused the attention of policymakers and the financial press on the hedge fund industry. LTCM's sudden fall from grace has made for colorful reading, in part because its principals include Nobel laureates Robert Merton and Myron Scholes. Interest was heightened by the Federal Reserve Bank of New York's involvement in coordinating LTCM's short-term rescue by 15 large banks and security firms. The New York Fed later justified its participation on the grounds that "an abrupt and disorderly liquidation would have posed unacceptable risks to the American economy."¹

This is not the first time, however, that policymakers have expressed concern over the role of hedge funds in financial markets.² Critics allege that hedge funds have increased the volatility and decreased the stability of financial markets. Further, they maintain that hedge funds played a major role in the currency crises of the 1990s and contribute to the increased volatility of foreign-exchange, equity, and debt markets. These claims, however, have not withstood close examination.

In this *Economic Commentary*, we examine some of the rationales for closer direct supervision of hedge funds. We first provide an overview of the industry, contrasting hedge funds with mutual funds; we go on to discuss the structure of hedge funds and examine their strategies. We conclude by describing the current regulatory environment for hedge

funds and discussing the issue of increased regulatory scrutiny.

■ A Primer on Hedge Funds

Hedge funds and mutual funds, both private investment pools, are organized under the Investment Company Act of 1940 and regulated under the Securities Act of 1933 and the Securities Exchange Act of 1934. However, private investment pools that limit ownership to 100 high-net-worth investors and do not issue securities to the public are exempted from such regulations.³ The National Securities Markets Improvement Act of 1996 removed the restriction on the number of qualified investors for hedge funds. However, it is common practice among hedge funds to limit the number of investors to 500 in order to be considered a private offering under the Securities Act. Qualified investors include individuals with at least \$5 million in capital and institutional investors (such as mutual funds, pension funds, and college endowment funds) with at least \$25 million in capital.

Hedge funds are further distinguished from mutual funds by the following:

- Hedge funds are not limited in the financial assets they may hold, including derivative securities.
- Hedge funds face no restrictions on short sales.
- Hedge funds may be highly leveraged.

Do hedge funds help or hurt the financial markets in which they operate? The highly publicized troubles of Long Term Capital Management have once again focused the attention of policymakers and the press on the hedge fund industry and the cry for its regulation. This *Economic Commentary* refutes some of the commonly held myths about hedge funds and examines the rationale for their regulation.

- Fund managers' compensation is based on the fund's financial performance.
- Hedge funds may limit withdrawals.

The first hedge fund, begun by Alfred Winslow Jones in 1949, was a market-neutral fund.⁴ Jones' strategy was to buy securities that were undervalued and to sell short others (see table 1). The securities sold short provided a natural hedge against market risk and provided Jones with some of the funding for his portfolio. Today, in addition to market-neutral funds, which structure their portfolios to eliminate gains and losses resulting from general movements, there are seven other types of hedge funds (defined by their investment strategy) operating domestically and abroad. These fund strategies are summarized in table 2. As hedge funds do not report financial data to the SEC, the exact number of funds in existence and their total assets managed can only be estimated. A recent IMF study estimated that in 1997 there were roughly 1,100 hedge

funds with a combined capitalization of nearly \$110 billion.⁵ The relative size of each type of fund—in terms of the number of funds and assets under management through 1997—is shown in figures 1 and 2, respectively.

The most notorious of the hedge funds are the large macro funds. Though few in number, these funds are by far the largest in average size and are operated by some of the more “colorful” individuals in the world of finance. The strategy behind macro funds is to place bets on global macroeconomic conditions. For example, if fund managers expect economic conditions in one country to lead to a currency devaluation, they would take a short position in that currency—typically by selling futures contracts.⁶ With the exception of the “funds of funds”—which invest in other hedge funds—hedge funds make money by arbitraging unexplained price differences between closely related securities. For example, if the risk premium on BBB-rated bonds was thought too high relative to AAA-rated bonds, then a market-neutral fund would buy the BBB-rated bonds and sell AAA-rated bonds short, whereas a long-only fund would buy the BBB-rated bonds, and a short-only fund would sell the AAA-rated bonds short. In all three cases, the effect would be a decrease in the price differential between the BBB-rated and the AAA-rated bonds, thus reducing the relative risk premium on the lower-grade instruments.

TABLE 2 TYPES OF HEDGE FUNDS

Macro	Funds that take positions on macroeconomic conditions around the world.
Global	Funds that take positions in regions of the world, including emerging markets.
Long only	Funds that buy securities they have identified as undervalued, but do not hedge their position.
Short only	Funds that sell securities they have identified as overvalued, but do not hedge their position.
Market-neutral	Funds (like the original Jones funds) that take offsetting positions in closely related financial instruments.
Sectoral	Funds that specialize in a particular industry or closely related industries.
Event-driven	Funds that capitalize on market mispricing related to a specific event, such as a merger or bankruptcy.
Funds of funds	Hedge funds that invest solely in other hedge funds.

NOTE: For a more detailed description of the different investment styles employed by hedge funds, see Chadha and Jansen (1998).

TABLE 1 ARBITRAGE USING SHORT SALES

Assume that there are two stocks (A and B) with similar risk characteristics. Each stock costs \$100 per share today; stock A is expected to sell for \$110 next year, while stock B is expected to sell for \$115 next year. An investor can profit by short-selling asset A and using the proceeds to buy asset B. Short-selling asset A involves borrowing a share of stock A. This share is then sold, yielding \$100 to buy stock B. Tomorrow stock B is sold for \$115. Of the proceeds, \$110 goes to pay back the loan of stock A, yielding a profit of \$5.

Proceeds from buying/selling	Today	Next year
Asset A	\$100	–\$110
	(sell short one share of A)	(repayment of short sale)
Asset B	–\$100	\$115
	(buy one share of B)	(sell one share of B)
Total	0	\$5

The trader need only take a short position in asset A. An investor is considered to have a short position in an asset when the value of that position moves inversely with the price of the asset. Short-selling is one method of taking a short position. Options, futures, and other derivative contracts may also be used to construct a short position.

■ Hedge Fund Myths

Critics of the hedge fund industry contend that these funds’ activities have negative consequences for markets and for the economy. Martin Mayer, talking about LTCM, expressed one view on the value of the industry: “It is probably worth noting that the work done at LTCM, while not illegal or sinful, was without redeeming social value.”⁷ Calls for increased regulation or more direct government oversight of the industry are often based on commonly held, but largely unsubstantiated, beliefs about hedge funds.

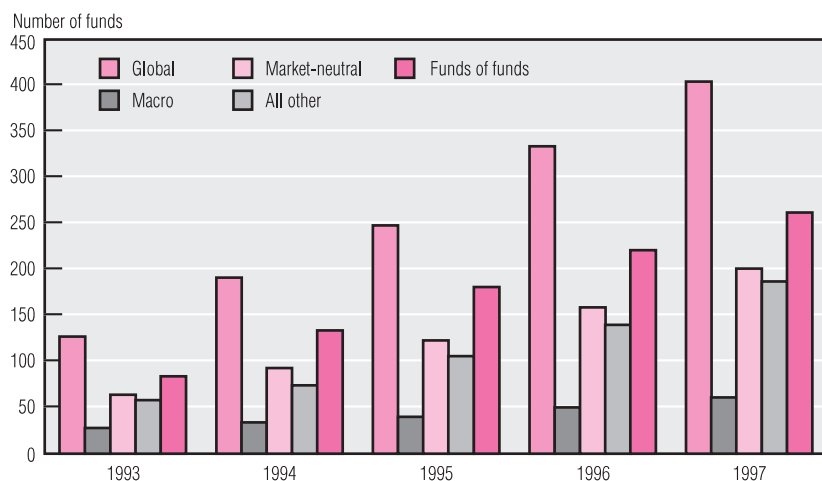
Myth #1: All Hedge Funds Are Highly Leveraged

A recent IMF study reports that best estimates place the number of funds using leverage in the range of 50 percent to 70 percent. In addition, they report that an estimated 85 percent of hedge funds have a leverage ratio of two or less.⁸ However, in instances where leverage is high (like LTCM), enhanced market discipline might be the answer. This could be encouraged, for example, through improved transparency in the operations of hedge funds. It is notable that the use of leverage, in and of itself, does not imply excessive risk-taking by hedge funds. After all, bank trading desks that compete with hedge funds in many markets employ much more leverage than the average leveraged hedge fund.

Myth #2: Hedge Funds Can Manipulate Markets

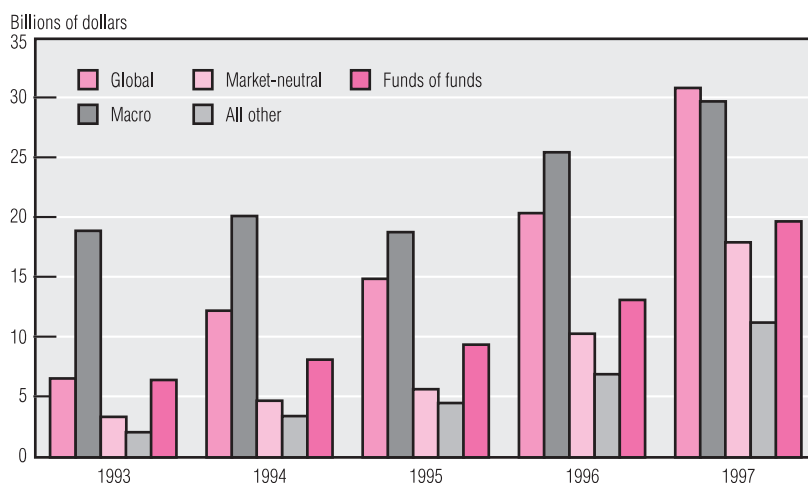
The size of the hedge fund industry, relative to the markets in which the funds operate, is too small for hedge funds alone to move the market. The total net assets of the industry are estimated to be around \$110 billion; therefore, hedge funds represent only about ½ of one percent of the \$20 trillion in investments held by institutional investors. However, it is possible that they may move the market because

FIGURE 1 HEDGE FUNDS BY TYPE, 1993–97



SOURCE: Chadha and Jansen (1998).

FIGURE 2 HEDGE FUND ASSETS, 1993–97



SOURCE: Chadha and Jansen (1998).

other investors follow their lead—an effect referred to as “herding.” But studies of the role of hedge funds in the currency crises find little evidence that hedge funds were the market leader—or even the lead bull in the herd.⁹

Myth #3: Hedge Funds Are Responsible for the Currency Crises of the 1990s

Careful analysis of the 1992 Exchange Rate Mechanism crisis, the 1994–95 Mexican peso crisis, and the 1997 Asian

currency crisis points to an array of factors contributing to the devaluations. Even when hedge fund activities were a link in the chain of events leading to a crisis, there is no evidence that the hedge funds *caused* the crises or collapses. It is possible, for example, that hedge funds reacted to news of changes in macroeconomic policies. Moreover, at least in the Mexican and Asian crises, domestic investors, rather than foreign hedge fund operators, played the lead role in dumping the currency.

Myth #4: Hedge Funds Increase Market Volatility

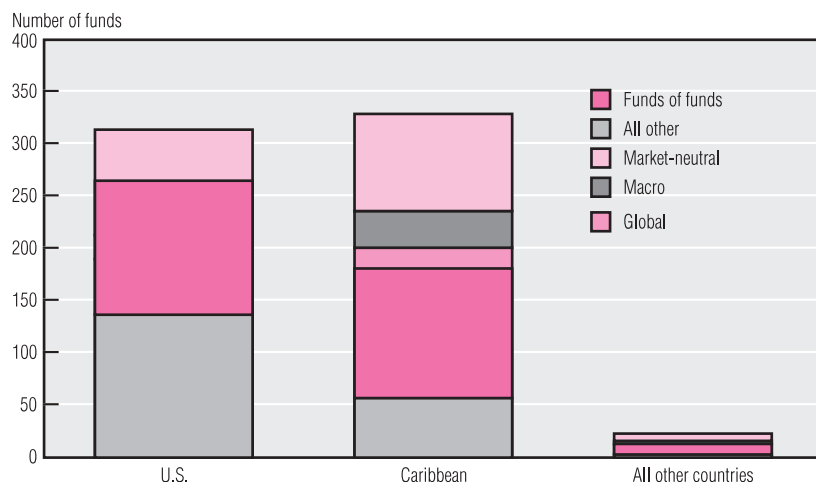
For hedge funds to increase volatility, their trading behavior would have to accentuate market swings through positive-feedback trading behavior. That is, they would have to sell when prices are falling and buy when prices are rising. So far, studies have found no evidence of positive-feedback trading by hedge funds. In fact, they suggest that hedge funds engage in negative-feedback trading. That is, they tend to sell or take a short position when prices are rising and buy when prices are falling. By providing ready counterparties to trades, hedge funds increase the liquidity of markets and reduce price pressures in a falling or rising market. By doing so, the funds’ trading behavior tends to reduce, not increase, the volatility of prices.¹⁰

Myth #5: Hedge Funds Are a Source of Systemic Risk

There are two ways hedge funds could increase systemic risk: First, they could reinforce asset bubbles, thus increasing the size of the losses and the damage to the financial system when the bubble bursts. Two pieces of evidence contradict this. First, as negative-volatility traders, hedge fund managers make their money by betting against unsustainable movements in security prices. Hence, not only do hedge funds *not* reinforce asset bubbles, they may in fact prevent them in the first place. Second, a recent study by William Fung and David Hsieh finds that hedge fund returns are largely uncorrelated with those of mutual funds and other asset classes—a finding that is also inconsistent with this definition of systemic risk.¹¹

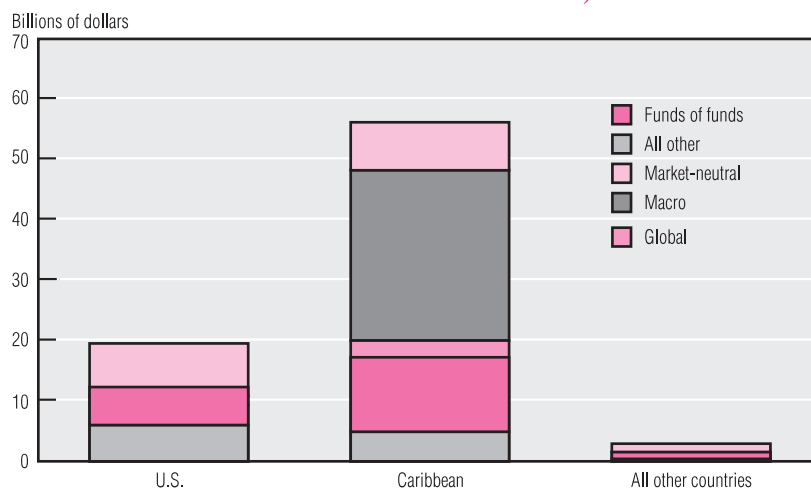
A second way that hedge funds could increase systemic risk is by increasing the risk exposure of counterparties, especially in the derivatives market. In this scenario, a hedge fund’s failure could impose losses on its counterparties large enough to seriously impair their capital, or even cause them to fail. This is the “domino effect” variety of systemic risk. However, counterparty risk might also be posed by other investments. Furthermore, the transmission of a loss sizeable enough to impair an institution’s capital is the result of poor credit policy and

FIGURE 3 HEDGE FUNDS BY DOMICILE, 1997



SOURCE: Chadha and Jansen, 1998.

FIGURE 4 HEDGE FUND ASSETS BY DOMICILE, 1997



SOURCE: Chadha and Jansen, 1998.

control by that institution. Thus, the risk posed by hedge funds might be dealt with through improved regulation of counterparties. In fact, regulatory authorities have identified several areas where improvement might be warranted.¹²

■ Can Increased Regulation Be Justified?

Any economic justification for increased regulation of hedge funds must consider that they contribute to market efficiency in two ways: First, the identification of arbitrage opportunities requires extensive research. By executing trading strategies based on their market research, hedge funds improve the informational efficiency of markets

by embedding that information into market prices. Second, whether hedge fund trades reflect an arbitrage strategy or speculation, their active presence in the market improves liquidity. Given that hedge funds often bet against the direction of the market, they provide ready counterparties in trades and thus help to complete the market.

The fact that hedge funds are owned by presumably sophisticated investors who are capable of understanding risk is key to considering calls for increased, or more direct, regulation. Larger, more sophisticated investors are presumed

capable of assessing and pricing the risks associated with their investments. If such investors expect to reap the gains and losses of their investments, then they have strong incentives to monitor the activities of firms, driving up the cost of a firm to close. In other words, markets should be able to effectively discipline hedge funds. Furthermore, any losses accruing to investors will be the consequence of an informed decision and, hence, an outcome that could reasonably be expected.

An important rationale for offering deposit insurance is that it provides protection for smaller, less sophisticated depositors. Coverage is limited, however, because larger depositors are presumed capable of assessing the risks of uninsured investments. Once the government offers deposit guarantees, however, this becomes a compelling argument for regulating the activities of the insured institution. As insurer, the government's exposure is increased when the insured undertakes risky activities. This is especially true if the insurance does not price the risk correctly.

Since higher-net-worth individuals own hedge funds, the "unsophisticated investor" rationale cannot be used to offer explicit or implicit guarantees to hedge fund investors. Therefore, as long as hedge funds are not implicitly insured by promises of government assistance, this argument does not justify regulation. Other rationales for direct regulation—claims that hedge funds are a threat to market integrity or pose systemic risk—also appear unjustified by the available evidence.

Somewhat different considerations arise in addressing concerns about the exposure of depository institutions, pension funds, and trust funds to hedge funds. Depository institutions, for example, are recipients of federal deposit insurance. Furthermore, the investment strategies and risks undertaken by hedge funds are no different than those undertaken by other counterparties of commercial banks, such as securities firms—or even by the trading operations of some money-center banks themselves. Thus,

the risk posed to commercial banks entering into derivatives contracts is the same whether the counterparty is a securities firm or a hedge fund—so long as the bank applies the same credit standards to its counterparty. Undue risk exposure of a commercial bank to a hedge fund can be addressed through modification of the substantial regulatory mechanisms already in place. Increased regulatory scrutiny of the bank and its risk-management system might be appropriate—with regulatory sanctions levied against the bank's management and board of directors. If the risks posed by hedge funds to other financial system participants can be contained by existing oversight mechanisms, the spillover effects from a hedge fund failure do not justify direct regulation.

Finally, direct regulation of hedge funds simply may not be practical. Figure 3 shows that in 1997, 49 percent of hedge funds were domiciled outside the United States, and the majority of those—including LTCM—were incorporated in the tax havens of the Caribbean. More importantly, figure 4 illustrates that more than two-thirds of hedge fund assets were controlled by funds domiciled in the Caribbean. Hence, attempts to regulate hedge funds would have little impact on a large share of the industry and would likely cause domestic funds to relocate offshore.¹³ On the other hand, when focusing on the risk-management practices of counterparties to hedge funds, the domicile of the hedge fund is less of an issue.

■ Summary

The assistance offered to Long Term Capital Management and the role played by hedge funds in recent currency crises have led to calls for increased regulatory scrutiny of their activities. Any additional regulatory burden must be balanced against the benefits that hedge funds provide by improving market efficiency. Careful consideration of the regulatory issue is obscured when critics of hedge funds rely on unsubstantiated accusations. There is little evidence, for example, that hedge funds caused the Asian currency crises or that they have increased market volatility.

A familiar argument in favor of regulating financial services firms invokes the presence of either explicit or implicit insurance. In the case of FDIC-insured deposits, for example, the expected loss to the insurer increases when the insured bank makes risky investments. This rationalizes efforts to reduce the expected loss by regulating various aspects of bank behavior that might increase the expected loss to the FDIC. This is especially true if the insurance does not price the risk correctly.

The same argument in favor of regulating activities that increase risk and possibly the expected loss to the insurer apply when the insurance is implicit, rather than formal or explicit. If hedge fund investors, for example, expect to be rescued with government assistance (as implicit insurance), we might worry that their activities would be riskier than otherwise. This would provide a rationale for some sort of government regulation. Other rationales for direct regulation—claims that hedge funds threaten market integrity or pose systemic risk—also appear unjustified by the available evidence.

The investment strategies and risk undertaken by hedge funds are no different than those undertaken by other counterparties of commercial banks, such as securities firms—or even by the trading operations of some money-center banks themselves. The fact that hedge funds are limited to wealthier, more sophisticated investors militates against one of the main arguments for

providing insurance to investors and, consequently, for direct regulation. Neither does the possibility that exposure to hedge funds might endanger the viability of commercial banks, pension funds, or trust funds justify direct regulation. In fact, commercial banks' exposure to hedge funds is similar in many ways to their exposure to risk from other counterparties. This implies that a more cost-effective way to monitor and contain exposure to hedge funds is through the existing regulatory mechanism. However, the implementation of this approach also must consider its impact on market discipline.

■ Footnotes

1. See "Statement by William J. McDonough, President, Federal Reserve Bank of New York, before the Committee on Banking and Financial Services, U.S. House of Representatives, October 1, 1998," *Federal Reserve Bulletin*, vol. 84 (December 1998), pp. 1050–54.
2. See "Statement by John P. LaWare, Governor, Board of Governors of the Federal Reserve System, before the Committee on Banking, Finance and Urban Affairs, U.S. House of Representatives, April 13, 1994," *Federal Reserve Bulletin*, vol. 80 (June 1994), pp. 511–21.
3. While hedge funds are largely unregulated, there are some activities—such as the trading of foreign exchange and futures contracts—where they must report their positions.
4. See Carol L. Loomis, "The Jones Nobody Keeps Up With," *Fortune* (April 1966), pp. 237–47.
5. See Barry Eichengreen and Donald Mathieson, "Hedge Funds and Financial Markets: Implications for Policy," in Barry Eichengreen and Donald Mathieson, eds., *Hedge Funds and Financial Market Dynamics*, International Monetary Fund, Occasional Paper 166, May 1998.
6. The short sale of a security entails borrowing the security being sold. In other words, it is a true negative position in that security. An investor is deemed to have a short position in an asset when the value of that position moves inversely with the price of the asset. Short selling is one method for taking a short position. Options, futures, and other derivative contracts may also be used to construct a short position.

7. Martin Mayer, "Bailing Out The Billion-Bettors: How Could a Small Group of High-Risk Traders Imperil Both Banks and Finances around the World?" *Los Angeles Times*, October 5, 1998.

8. See Bankim Chadha and Anne Jansen, "The Hedge Fund Industry: Structure, Size and Performance," in Barry Eichengreen and Donald Mathieson, eds., *Hedge Funds and Financial Market Dynamics*, International Monetary Fund, Occasional Paper 166, May 1998.

9. The one exception is the 1992 ERM crisis. While hedge funds were relatively small players in betting on a realignment of ERM's fixed basket of exchange rates, one cannot rule out the possibility that hedge funds were the market leader. See Chadha and Jansen, footnote 2, and Stephen J. Brown, William N. Goetzman, and James M. Park, "Hedge Funds and the Asian Currency Crisis of 1997," Yale University, International Center for Finance, Working Paper, May 1998.

10. For evidence of negative-feedback trading, see Laura E. Kodres and Matthew Pritsker, "Directionally-Similar Position Taking and Herding by Large Futures Market Participants," unpublished manuscript, International Monetary Fund, 1997.

11. See William Fung and David A. Hsieh, "Empirical Characteristics of Dynamic Trading Strategies: The Case of Hedge Funds," *Review of Financial Studies*, vol. 10, no. 2 (Summer 1997), pp. 275-302.

12. See "Statement by William J. McDonough," pp. 1050-54; and "Banks' Interactions with Highly Leveraged Institutions," Bank for International Settlements, Basle Committee on Banking Supervision, Paper No. 45, January 1999.

13. See Burton G. Malkiel and J. P. Mei, "Hedge Funds: The New Barbarians at the Gate," *Wall Street Journal*, September 29, 1998.



William P. Osterberg is a senior economist at the Federal Reserve Bank of Cleveland, and James B. Thomson is a vice president and economist at the Bank.

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**Federal Reserve Bank of Cleveland
Research Department
P.O. Box 6387
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