

Hedge funds and systemic risk

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A hedge fund is a privately offered investment vehicle that pools the contributions of investors in order to invest in a variety of assets, such as securities, futures, options, bonds and currencies. Hedge funds have attracted growing attention from policy makers, financial market participants and the general public due to their rapid growth and substantial scale, their importance to banks as clients and the impact of their trading activity on global capital markets. Because of their rapid growth and the market disruptions caused by Long-Term Capital Management (LTCM) in 1998, some analysts believe that hedge funds pose systemic risks. However, this is unlikely. A thorough review of the avenues through which hedge funds could cause systemic problems indicates that, although a major disruption emanating from the hedge fund sector is possible, it would be difficult for the sector to be highly disruptive to financial markets. Post-LTCM, regulatory authorities have encouraged banks to monitor their hedge fund clients through constraints on their leverage. This has thus far proven effective, as the recent failure of Amaranth demonstrates. That failure, the largest yet, caused hardly a ripple in the wider financial markets.

Hedge funds support the robustness of markets in many ways. They provide attractive investment alternatives and improve economy-wide risk sharing. In addition, they promote financial market stability by assuming risks that other market participants are unwilling or unable to bear; by providing liquidity; and by placing trades that move mispriced assets toward their “fundamental” values. Of course, hedge funds could raise problems through their dominant role in some markets, active trading strategies, use of leverage and relative lack of transparency. Counterparties must therefore be cognizant of the risks they bear from hedge funds. Also, regulators must continue to promote better hedge fund risk management and transparency through their regulation of counterparties while remaining vigilant about potential systemic risks emanating from the sector. On balance, however, hedge funds enhance market stability and are unlikely to be the source of a systemic failure.

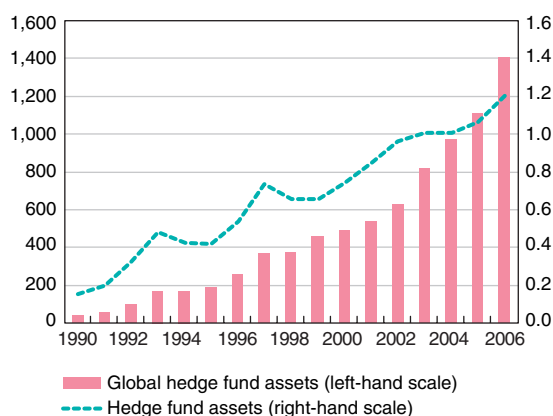
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I | SIZE OF HEDGE FUNDS

The hedge fund industry has grown rapidly in recent years. According to estimates by Hedge Fund Research (HFR), the industry grew from 610 funds managing USD 39 billion of assets in 1990 to 3,873 funds with USD 490 billion ten years later (Chart 1). As of the end of the third quarter of 2006, 9,228 funds managed some USD 1.4 trillion, representing annualized asset growth of 19% since 2000. More than USD 1 trillion of these assets are in the US, USD 325 billion are managed in Europe and USD 115 billion in Asia.¹

As the industry has grown, so too have the number of extremely large funds. At year-end 2002, the largest hedge fund, Moore Capital, had USD 8 billion in assets. Just three years later, 31 funds managed this much in assets and Moore, whose assets had grown to USD 10.2 billion, was not even among the ten largest (Table 1). In recent years, the industry

Chart 1
Hedge fund assets have been growing rapidly
(USD billions) (as a % of global debt and equity outstanding)



Sources: Hedge Fund Research, World Federation of Exchanges (FIBV), Bank for International Settlements (BIS) and Swiss Re Economic Research & Consulting.

has become more concentrated. The asset share of the 100 largest hedge fund managers has risen from 54% in 2003 to 65% in 2005.²

Although their assets represent little more than 1% of the total debt and equity outstanding worldwide, hedge funds have a significant impact on financial markets. Because many hedge funds trade frequently and employ leverage, they account for about 30% of US equity trading volume.³ One hedge fund, SAC Capital, is reported to account for as much as 3% of NYSE average daily volume and 1% of NASDAQ daily volume.⁴ In a survey of the main London banks that provide prime brokerage services to hedge funds, the Financial Services Authority found that the funds' average leverage is 2.4:1 (GBP 2.4 in assets per GBP 1 of capital).⁵ Hedge funds dominate some markets. For example, they account for about 70% of the long value in the convertibles market.⁶

Table 1
The ten largest hedge fund managers
Year-end 2005
(assets in USD billions)

Fund manager	Location	Assets
Goldman Sachs Asset Management	New York, NY	21.0
Bridgewater Associates	Westport, CT	20.9
D.E. Shaw Group	New York, NY	19.9
Farallon Capital Management	San Francisco, CA	16.4
ESL Investments	Greenwich, CT	15.0
Barclays Global Investors	London, UK	14.3
Och-Ziff Capital Management Group	New York, NY	14.3
Man Investments	London, UK	12.7
Tudor Investment Group	Greenwich, CT	12.7
Caxton Associates	New York, NY	12.5

Source: Rose-Smith (I.) (2006): "The hedge fund 100", Institutional Investor's Alpha, June.

1 Data from Hedge Fund Intelligence, quoted in Mallaby (S.) (2007): "Hands off hedge funds", Foreign Affairs, January/February.

2 Rose-Smith (I.) (2006): "The hedge fund 100", Institutional Investor's Alpha, June.

3 US Securities & Exchange Commission, "Testimony concerning the regulation of hedge funds".

4 Vickers (M.) (2003): "The most powerful trader on Wall Street you've never heard of", Business Week, July 21.

5 Speech by Waters (D.), Director, Asset Management Sector Leader and Director of Retail Policy, Financial Services Authority (FSA), October 19, 2006.

6 Feng (J.), Greenwich Associates (2004): "Hedge fund strategies drive market direction in US and Euro converts", August 5.

2 | TYPES OF HEDGE FUNDS

The investment styles of hedge funds vary widely. The major strategies fall into three general categories.

- **Market trend/directional strategies** take positions based on market or security trends.

- **Macro funds** make directional bets based on macroeconomic fundamentals in the equities, interest rates, currency and commodities markets.

- **Long/short funds** buy securities they believe to be underpriced and sell securities they deem overpriced. Unlike mutual funds, these funds commonly employ leverage, take short positions and use derivatives. Some of these funds are market-neutral (i.e. beta = 0); most are net long.

- **Event-driven strategies** seek to exploit mispricing caused by discrete events.

- **Distressed securities funds** attempt to exploit mispricing of securities involved in, or at risk of, bankruptcy or reorganization.

- **Risk/merger arbitrage funds** seek to profit from trading the stocks of companies involved in mergers, takeovers, or buyouts.

- **Arbitrage strategies** seek to exploit small pricing inefficiencies between closely-related securities.

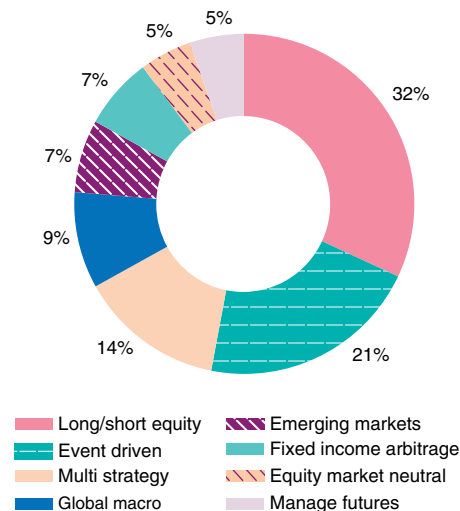
- **Convertible arbitrage funds** generally take long positions in a company's convertible debt, preferred stock, or warrants while shorting the company's common stock.

- **Fixed-income arbitrage funds** seek to exploit small pricing inefficiencies in similar fixed income instruments.

- **Statistical arbitrage funds** uses econometric and/or mathematical models to try to find pricing inefficiencies.⁷

More than half of hedge fund assets are invested in long/short equity and event driven

Chart 2
Long/short equity funds are the biggest category
Percentage of total hedge fund assets by strategy –
(as at June 2006)



Note: These categories follow Technical Analysts Society Singapore's (TASS) definitions and do not exactly match the above categories.

Sources: TASS Research, "Commentary on TASS Asset Flows", second quarter 2006; Swiss Re Economic Research & Consulting.

strategies (Chart 2). The risk profiles of hedge funds vary widely. Many employ variations or combinations of basic strategies.

3 | BENEFITS OF HEDGE FUNDS

The benefits that hedge funds offer investors are well known. Less well understood are the ways that hedge funds improve risk sharing and financial market stability.

3|1 Benefits to investors

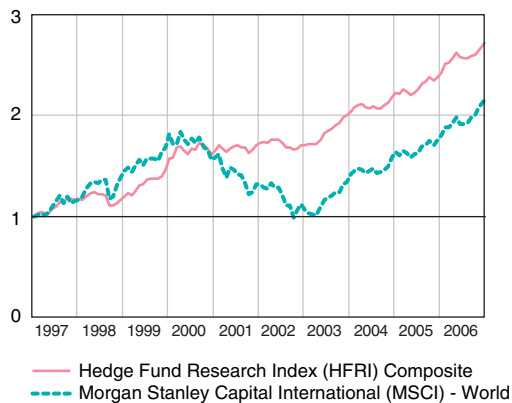
A well diversified portfolio of hedge funds appears to have the potential to earn attractive returns with less risk than equities. In the decade through year-end 2006, the HFR Fund-Weighted Composite Index generated a higher annual return than the MSCI-World Equity Index (10.6% versus 8.1%) with half of the risk (Chart 3).⁸ Moreover, the "beta" of the HFR with respect to the MSCI-W was 0.4, which means that each percentage point change in returns

⁷ Definitions based on US Securities and Exchange Commission (SEC) (2003): "Implications on the growth of hedge funds", Staff Report, p. 35-36, September.

⁸ The standard deviation of monthly returns was 2.1% for the HFR Composite and 4.2% for the MSCI-W.

Chart 3
Cumulative returns to hedge funds and global equities
 January 1997-December 2006

(December 1996 = 1.0)



Sources: Hedge Fund Research, MSCI Barra.

to the MSCI-W was typically associated with a 0.4% change in the HFR composite's returns. A low beta such as this suggests that allocating some of a portfolio to hedge funds in lieu of stocks can potentially reduce the volatility of portfolio returns.

In assessing these benefits, a few caveats are in order. First, unlike equity indices such as the MSCI-W and the S&P 500, for which vehicles exist enabling investors to track their returns, there is no way for investors to replicate the performance of hedge fund indices, since many of the funds in these indices are closed to new investors. Second, there is considerable evidence that hedge fund indices substantially overstate the returns and understate the risk of hedge funds.⁹ Finally, hedge funds are far less liquid than equities.

3|2 Risk sharing

Smoothly functioning institutions that facilitate risk sharing, such as equity, derivatives and insurance markets, allow risks to be shifted to the parties most willing and best equipped to bear them. This helps an economy to function more efficiently.

Hedge funds have become an important source of risk capital. In the fledgling market for

insurance-linked securities such as catastrophe bonds and life bonds, hedge funds have become increasingly active investors. Some funds have been launched to invest exclusively in insurance risk. Over time, hedge funds will become an increasingly important financing source for insurers, complementing reinsurance in areas such as peak catastrophe risks, for which industry capital is insufficient. On a larger scale, hedge funds absorb credit risks from other financial institutions, notably banks, thereby distributing these exposures across a broader range of investors holding diversified portfolios.

3|3 Financial market stability

The improved risk sharing that hedge funds facilitate can enhance market stability. By assuming some of the escalating volume of credit and catastrophe risks in the marketplace alongside banks and insurers, hedge funds join other institutions in serving as shock absorbers, potentially limiting the spread of damage from recessions, credit crises and natural catastrophes.

Hedge funds can help improve market stability in tumultuous times in other ways as well. When liquidity dries up and other market participants avoid trading a particular security, hedge funds often enter the fray, in areas such as distressed debt. Increased trading contributes to market liquidity, which causes a reduction in the risk premia associated with financial assets. This ultimately means a lower cost of capital.

When the market price of a currency or security deviates sharply from its "fundamental" value, hedge funds seek opportunities to arbitrage the difference, thereby fostering the return of asset prices to their "fundamental" values. Hedge funds are uniquely able to act in this way because their investors are generally subject to "lock-ups", which require them to keep their investments with the fund for a set period. Hedge funds also have bank lines of credit that they can access when a compelling investment opportunity arises.

⁹ This is because of biases in the data sets on which hedge fund indices are based, such as survivorship bias, backfill bias and self-selection bias. See, for example, Malkiel (B.) and Saha (A.) (2005): "Hedge funds: risk and return", *Financial Analysts Journal*, November/December, p. 80-88. For evidence that reported hedge fund returns understate the correlation of funds with equity markets, see Asness (C.), Kraib (R.) and Liew (J.) (2001): "Do hedge funds hedge?", *The Journal of Portfolio Management*, p. 6-19, Fall.

4 | SYSTEMIC RISK ISSUES

Hedge funds, like other financial institutions, pose two types of risk to investors and the financial community at large: *systemic* and *non-systemic*. Systemic risk refers to the risk that one financial institution's failure to meet its financial obligations will cause other institutions to fail to meet theirs as well. In extreme cases, a financial crisis could ensue, destabilizing capital markets and the real economy. Other risks are known as non-systemic.

4|1 Non-systemic risk

Many of the risks to which a hedge fund is exposed are specific to that fund. Risks such as operational

risk and the risk of fraud directly affect a hedge fund's investors and the banks lending to the fund. Regulators in many countries, especially the US and UK, have taken the approach that since the funds are restricted to large, sophisticated investors, it is these investors' responsibility and not the government's to perform due diligence on the funds in which they invest. Moreover, fraudulent operators are subject to prosecution under existing laws.

In recent years, there have been numerous instances where hedge funds have lost hundreds of millions, or billions, of dollars (Table 2). Of 21 episodes reported in various public sources, two fund categories – fixed income arbitrage and global macro – together accounted for 47% of the reported incidents and 63% of assets lost (Charts 4), well above their 16%

Table 2
Selected hedge fund disasters and large losses

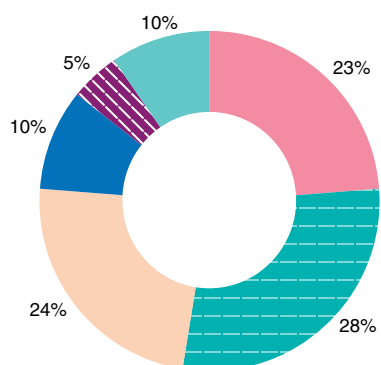
(Estimated loss in USD millions)

Fund	Strategy	Year	Estimated loss	What went wrong?
Amaranth	Multistrategy	2006	~6,400	Excessive exposure to energy prices
Long-Term Capital Management	Fixed-income arbitrage	1998	3,600	Excess leverage during Russian default crisis
Tiger Management	Macro	2000	2,600	Bad bet on yen lost USD 2 billion
Soros Fund	Macro	2000	2,000 -5,000	Major losses on Internet and technology stocks
Fenchurch Capital	Fixed-income arbitrage	1995	1,264	Failed shift from US - only to European markets
Princeton Economics Inter'l	Macro	1999	950	Market losses, fraud
Vairocana Ltd.	Fixed-income arbitrage	1994	700	Market losses, bet on falling rates
Lipper	Convertible arbitrage	2001	700	Market losses, fraud
Askin Capital Management	Fixed-income arbitrage (mortgage-backed)	1994	660	Failed hedge, market losses, margin calls
Lancer	Long/short equity	2003	600	Fraud
Beacon	Fixed income arbitrage	2002	500	Losses on mortgage derivatives, failed to mark to market
Manhattan Investment Fund	Long/short equity	1999	400	Fraud
MotherRock	Energy Fund	2006	230	Loss from natural gas market
Global Systems Fund	Macro	1997	125	Wiped out by collapse of Thai baht
Argonaut Capital Management	Macro	1994	110	Market losses
Maricopa Investment	Long/short equity	2000	59	Market losses, fraud
Cambridge Partners	Long/short equity	2000	45	Fraud
HL Gestion/Volter	Managed futures	2000	40	Market losses, regulatory intervention
Ashbury Capital Partners	Long/short equity	2001	40	Fraud
ETJ Partners	Relative value	2001	21	Market losses, fraud
Ballybunion Capital	Long/short equity	2000	7	Fraud

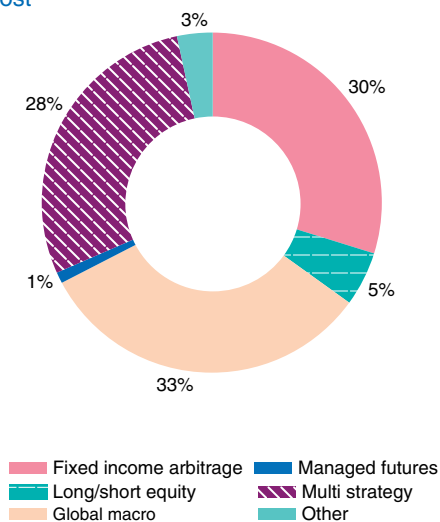
Sources: Alexander Ineichen, UBS Warburg (2001): "The Myth of hedge funds: are hedge funds the fireflies ahead of the storm?", *Journal of Global Financial Markets*, 2(4), p. 34-46; Jeff Joseph Rydex Capital, "Investing in a hedge fund of funds: what really matters," *Senior Consultant*, 7(8), p.1; Berkshire Asset Management winter, "Hedge Funds", July 2003; *New York Times*, September 2006; Swiss Re Economic Research & Consulting.

combined share of assets (Chart 2). This is consistent with findings that these two strategies have among the highest attrition rates in the hedge fund universe.¹⁰ Forty-three percent of the 21 cases were fraud-related.

Charts 4
Distribution of large-scale hedge fund losses across strategies
 Number of incidents



Assets lost



Source: Table 2.

4|2 Systemic risk

Systemic risk has traditionally been more of a concern to regulators than non-systemic risk.

As hedge funds have become more significant financial market participants, policymakers have raised concerns that they may contribute to systemic risk. One way this might occur is if a failing hedge fund causes the collapse of a large financial institution with direct exposure to it. This could, in turn, cause further financial system disruption. During the collapse of LTCM in the autumn of 1998, 17 counterparties, mostly large banks, would collectively have lost between USD 3 and 5 billion had LTCM not been bailed out by a group of its counterparties. Many of the counterparties had direct exposure to LTCM, mostly arising from over-the-counter (OTC) derivatives.¹¹

The LTCM crisis illustrates why market turmoil can be averted even when a fund with extensive counterparty risk exposures fails. First, counterparties should recognize that they are at risk and act in their self-interest by interceding, as occurred in the LTCM episode. Second, banks' risk management procedures with regard to individual exposures might prove highly effective, as was the case during the LTCM crisis. The replacement value of instruments net of collateral was a small percentage of banks' overall trading portfolio, though it would have significantly reduced their surplus capital. Banks' risk management was, however, lacking in one regard: in assessing the risk of lending to LTCM, the banks relied too heavily on the reputations of the fund's partners but lacked a clear picture of the fund's overall risk profile.¹²

Aside from causing the failure of a major counterparty, a failing hedge fund can disrupt the financial markets indirectly. Timothy Geithner, President of the Federal Reserve Bank of New York,

¹⁰ Chan (N.) et al: "Systemic risk and hedge funds", forthcoming in M. Carey and R. Stulz, eds., "The risks of financial institutions and the financial sector".
¹¹ Petit (J.P.), Exane Economics Research, 23 June 2004, p. 9. LTCM had total trading assets of USD 125 billion, and notional off-balance sheet positions of over US 1 trillion. US commercial banks only had loans outstanding to LTCM of USD 170 million and equity investments of USD 900 million, according to Meyer (L.), Testimony before the US House of Representatives, 24 March 1999.
¹² Basel Committee on Banking Supervision (1999): "Banks' interactions with highly leveraged institutions", January.

characterizes the common dynamic of past financial crises as:

- the confluence of a sharp increase in risk perception, and the subsequent actions taken by financial institutions and investors to limit their exposure to future losses. As asset prices declined and volatility increased in response to increased concern about risk, firms moved to call margin, to reduce positions and to hedge against further losses. These individual actions had the aggregate effect of inducing even larger price declines and further heightening perceptions of risk, ultimately propagating and amplifying the effects of the initial shock.¹³

In the wake of LTCM, the Basle Committee found that the potential to disrupt markets indirectly was of greater concern than the possibility of having a direct impact on financial institutions.

The Committee identified several reasons why hedge funds pose a risk to financial markets:

- because of their use of leverage, hedge funds might exacerbate market movements if they are forced to sell securities to meet margin calls;
- forced selling might be additionally exacerbated by that fact that hedge funds often take similar positions and often invest in more illiquid securities;
- the disruption could be further aggravated if broker-dealers making margin calls front-run the hedge funds;
- many hedge funds are short-lived. Their historical attrition rate has been about 10% per year.¹⁴ This short time horizon may lead to increased risk-taking since investment strategies will be focused on short-term gains.

These factors combined to cause substantial financial market disruption in the autumn of 1998 during the downfall of LTCM. Unlike the case of LTCM, however, other large-scale hedge fund losses have had little or no systemic impacts.

Amaranth, a highly regarded USD 9 billion multi-strategy fund, recently lost 65% of its assets in less than two weeks. The fund lost 35% of its value during the week of 11 September 2006 employing a highly leveraged natural gas spread strategy. Amaranth tried unsuccessfully to sell its positions to other financial institutions over the week-end of 16-17 September. On Wednesday, 20 September, it sold its positions to JP Morgan Chase and Citadel Investment Group at a USD 1.4 billion discount from the prior day's market-to-market values.¹⁵

The losses, though unnerving for market participants, posed little systemic risk because they occurred in a relatively small and isolated market. LTCM's problems, by contrast, played out in the US Treasuries market. Amaranth and LTCM were both undermined when pursuing strategies that could conceivably have been profitable under certain scenarios. In each case, the failure was one of risk management. The trades were undertaken at such a large scale that when the markets moved against them, the funds were unable to exit their positions without moving the markets. A greater sensitivity to this liquidity risk, as well as a more thorough analysis of extreme scenarios, could have helped prevent these debacles. Amaranth demonstrates that a hedge fund can experience large-scale failure without causing systemic risk.

The Tiger and Soros funds offer further examples of large-scale losses with no systemic impact. The Tiger funds, which earned a 32% annualized return after fees from 1980 to 1998, ran into problems with a yen trade that lost USD 2 billion in 1998. Tiger suffered further losses due to a bear market in value stocks. As investors rushed to buy Internet, technology and telecom stocks in the late 1990s, Tiger's old economy holdings languished. Fund manager Julian Robertson announced the liquidation of the funds on 30 March 2000. The Soros funds, meanwhile, suffered the opposite fate. The funds reportedly lost billions of dollars in March and April of 2000 by joining the "New Age" bubble at precisely the wrong time.¹⁶

13 "Hedge funds and derivatives and their implications for the financial system", remarks at the 2006 Distinguished Lecture, sponsored by the Hong Kong Monetary Authority and the Hong Kong Association of Banks.

14 Chan et al.

15 Till (H.), "EDHEC comments on the Amaranth case: early lessons from the debacle", Working Paper, EDHEC Business School.

16 Robertson (J.), letter to investors, 30 March 2000. "Millionaire speculator Soros exiting risk business", *New York Times* web edition, 28 April 2000.

4|3 Causes for comfort about systemic risk

Although hedge funds can and do fail, sometimes spectacularly, these failures have generally not entailed systemic risk. There are other causes for comfort as well.

Market practices have improved since the LTCM crisis. The banking system is cushioned by more risk-adjusted capital. In the US, for instance, tier-one risk-based capital ratios have stabilized at about 8.5%, well above the 6.5% levels that prevailed in the early 1990s.¹⁷

Hedge fund risk management has improved through the efforts of bank supervisors, banks and securities firms; the involvement of institutional investors; and the institutionalization of hedge funds.

- Bank supervisors have promoted best practices in risk management among the banks that lend money to hedge funds. The banks have in turn promoted better risk management at the funds.
- After the LTCM episode, risk managers at banks and securities houses formed the Counterparty Risk Management Policy Group, which developed recommendations and diligently implemented them.
- As institutional investors have increased their allocations to hedge funds, the question of hedge fund risk management has come increasingly to the fore. A recent survey of hedge fund investors found that sound risk management is now among their chief concerns.¹⁸
- The emergence of larger, more "institutional", hedge funds has better aligned the interests of hedge fund managers with their investors.

There is some evidence that the role of hedge funds in financial crises has been exaggerated. Many funds use no leverage, and most use very little. According to a August 2005 report by service

provider Van Hedge Fund Advisors, approximately 20% of hedge funds used no leverage while 50% used leverage (borrowed money) of less than 1-to-1 (including short positions as leverage).

In many cases of market disruption, such as the Mexican and Asian currency crises, hedge funds were not a leading cause of problems. Research on the role that hedge funds and foreign investors played in Malaysian currency markets and the Korea stock market during these countries' crises found no support for the theory that hedge funds were a major cause of these debacles.¹⁹ Similarly, the International Monetary Fund (IMF) found no evidence of hedge funds abnormally profiting from the Brazilian (1999), Turkish (2001), and Argentine (2001) currency crises.²⁰ Rather than driving these currencies downwards, funds were engaged in negative feedback trading (*i.e.* buying on dips), which might actually have improved market liquidity and stability.

Finally, though market participants should not grow complacent, the absence of major systemic crises in the US since 1998 is an encouraging sign that risk management has improved. During that time, the US financial infrastructure has weathered challenges including a major bear market and operations failures due to 9/11 without major systemic fallout.

4|4 Three causes for concern

Mechanisms through which hedge funds can create systemic risk include style convergence, multiple layers of leverage and proprietary trading activities by banks.

One major concern is the possibility of many hedge funds with similar models and trading styles disrupting markets by trading in a similar fashion, leading them to start selling at the same time after some trigger. Fung and Hsieh (2000) found evidence of "style convergence", through which funds can arrive at similar trades, possibly for different reasons.²¹

¹⁷ Geithner, *op cit.*

¹⁸ Deutsche Bank (2007): "2006 Alternative investment survey", January.

¹⁹ Fox (J.) (1998): "Did foreign investors cause Asian market problem?" NBER Digest, October.

²⁰ International Monetary Fund (2004): "Hedge funds and recent emerging market currency crises", Global Financial Stability Report, p. 146-148, April.

²¹ Fung (W.) and Hsieh (D.) (2000): "Measuring the market impact of hedge funds", Journal of Empirical Finance, 7, p. 1-36.

The impact of this herding could be amplified by the layers of leverage employed. Of particular concern is the practice of investors borrowing to invest in funds of funds or other hedge fund vehicles, funds of funds then borrowing to invest in hedge funds and hedge funds then borrowing and using derivatives and other instruments to leverage themselves.²² This practice could make funds vulnerable to large-scale losses. This use of leverage is particularly problematic in that banks might aggravate financial market distress by withdrawing liquidity during difficult periods.²³ Thus, multiple hedge fund failures could cause a cascade of margin calls, destabilizing markets.

Non-linear, option-like models can explain much of hedge funds' returns. Using this method, it was found that hedge funds have a significant amount of systematic risk, that equity funds exhibited significant positive beta exposure to equity markets with return distributions resembling short-put positions, and that the analysis was consistent with the popular view that hedge funds are "short volatility".²⁴ Selling volatility can be an extremely risky strategy with potentially large negative returns even with a dynamically-hedged delta-neutral position.²⁵ Also, IMF research found that even "market neutral" or "relative value" trading strategies, which are long some securities and short others in the same asset class, can experience a sharp increase in risk at times of extreme returns and often have correlations with other asset classes. This higher risk can occur even when holding a large number of "uncorrelated positions," a common hedge fund risk management technique, because these positions can suddenly become correlated during periods of market stress.²⁶

Proprietary trading desks at major banks, which engage in trading strategies similar to those of hedge funds, are growing in size and importance. In each year from 2003 to 2005, NYSE member firms earned more revenues from trading than from equity commissions. In the first nine months of 2006,

they earned twice as much revenues from trading as from equity commissions.²⁷

5| POTENTIAL BENEFITS AND RISKS FOR INSURERS

Some insurers have found hedge funds to be worthwhile investments. At year-end 2006, insurers had an estimated USD 40 billion invested in hedge funds.²⁸ Conversely, hedge funds have invested in insurance risk. These investments lead to a broader spread of risk.

Insurers have several types of exposure to hedge fund failure. These include counterparty risk, credit risk, fiduciary liability insurance risk, and directors and officers insurance risk to corporations with pension funds significantly invested in hedge funds. Some insurers have exposure to broker-dealers, whose large proprietary trading and prime brokerage operations are subject to hedge fund-type risk.

6| REGULATORY OUTLOOK

Many regulators in the US and other major markets believe that regulating hedge funds indirectly through their sources of funds is the best way to monitor hedge fund activity and its impact on financial markets. Securities and banking regulators oversee the relationships of hedge funds with the commercial banks and broker-dealers that lend to and transact with hedge funds. Banks must regularly assess the creditworthiness of their hedge fund borrowers and counterparties. Brokers must actively monitor the positions of hedge funds and manage their exposure to them. Regulators have reached no international consensus on the need for further oversight. Whereas many US and British regulators

22 Bank of England (2004): "The financial stability conjecture and outlook", Financial Stability Review, June, p. 53.

23 Warwick (B.) (2004): "At the margins: leveraged level of funds of funds has some concerned", MAR/Strategies, March, p. 9.

24 Agarwal (V.) and Naik (N.) (2002): "Risks and portfolio decisions involving hedge funds", Working Paper, July 17.

25 A delta-neutral position has zero exposure to small changes in the underlying asset price. Nandi (S.) and Waggoner (D.), "The risks and rewards of selling volatility", Federal Reserve Bank of Atlanta Economic Review, First Quarter 2001, p. 31-39.

26 Richards (A.) (1999): "Idiosyncratic risk: an empirical analysis, with implications for the risk of relative-value trading strategies," IMF Working Paper, No. 99/148, November. Research suggests that hedge funds avoided the worst of the recent stock market downturn because they were able to time their investments by selling tech stocks before, during, and after the stock market started to collapse. Source: Brunnermeier (M.) and Nagel (S.) (2002): "Arbitrage at its limits: hedge funds and the technology bubble," Working Paper, August.

27 Fernandez (F.A.) (2006): "US securities industry 3Q'06 results", SIFMA Research Report, 13 December, p.46.

28 The Deutsche Bank survey states that insurers account for 3% of hedge fund investments which, as noted above, total about USD 1.4 trillion.

are reluctant to create new hedge fund regulations, officials in many European countries seek fuller disclosure or a ratings system for the funds.²⁹

In December 2004, the SEC adopted a rule requiring hedge funds to register as investment advisors, thereby allowing regulators to examine hedge funds' accounts and records. The reasons it cited for the rule were the growth of the hedge fund industry, an increase in the number of fraud cases

and a growing number of hedge funds investors with no previous experience investing in the funds. In June 2006, the US Court of Appeals for the District of Columbia Circuit vacated and remanded the rule. It is uncertain how much impact a registration requirement would have. Hedge funds could move offshore to avoid registering. Moreover, because of its resource limitations, the Commission might find it difficult to closely monitor the industry.

- *Hedge funds have grown rapidly, from USD 39 billion in assets in 1990 to USD 1.4 trillion in assets at the end of the third quarter of 2006.*
- *Because many hedge funds trade rapidly and employ leverage, their activities have a disproportionately large impact on capital markets.*
- *Hedge funds provide benefits to investors and improve risk sharing and financial market stability.*
- *Regulators have generally taken the position that the sophisticated investors who buy hedge fund shares can fend for themselves. Fraudulent fund manager behavior is, however, prosecutable.*
- *The risk of hedge funds causing the downfall of a large financial institution is low.*
- *Due to the changing nature of funds' exposure to asset markets, it is difficult to know when a hedge fund's distress might cause a shock. Of the numerous large-scale hedge fund losses that have occurred, few have posed systemic risks.*
- *In recent years, hedge fund risk management has improved due to the efforts of regulators, banks and securities firms; the preferences of institutional investors; and the institutionalization of hedge funds.*
- *Hedge funds could cause financial market disruption due to the use of similar trading strategies, layers of leverage and proprietary trading by banks.*
- *In many instances, hedge funds provide liquidity and stability to financial markets, propping up the prices of assets whose values have declined sharply.*
- *On balance, hedge funds likely reduce systemic risk.*

29 Scannell (K.) et al (2007): "No consensus on regulating hedge funds", Wall Street Journal, 5 January, p. C1.