

Hedge Funds: An Industry Overview

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In the past decade the hedge fund universe has grown from a small number of firms managing several hundred million dollars to 6,100 hedge funds that now manage \$355 billion.¹ If we add “traditional” alternative investments, a category including distressed securities, leveraged buyout (LBO) funds and private equity, the assets under management for all alternative investments rise to well over \$500 billion. Alternative investments have become an important part of the portfolio of many investors, especially high net worth individuals, endowments, and foundations.²

Despite this dramatic growth, hedge funds remain largely peripheral compared to mutual funds and institutional investment managers. Spectacular and well-publicized losses such as the \$426 million loss by Manhattan Capital Management and the \$3.6 billion bailout of Long-Term Capital Management (LTCM) serve as a deterrent to many potential investors, especially pension funds that have fiduciary responsibilities. In recent years some of the industry’s most well-known performers, such as George Soros and Julian Robertson, have turned in uneven and highly volatile results, with the latter choosing to exit the business. Moreover, the lack of transparency and liquidity and the absence of regulatory oversight have contributed to a limited role for hedge funds in the past. Finally, the absence of commonly accepted hedge fund evaluation benchmarks, at least until recently, has been an issue for many potential investors.

Recent trends have led observers to speculate that the hedge fund universe is reaching a critical consolidation and institutionalization phase paralleling the mutual fund and institutional fund manager consolidation in previous decades. Traditional asset managers (banks, mutual funds, venture capital firms, insurance companies and institutional investment managers) have become more active in providing their clients with alternative investment strategies. Other contributing factors are increased self-regulation of hedge funds, in the wake of the LTCM; growth in hedge fund investments by endowments, foundations, and pension plan sponsors; the development of hedge fund performance indexes and risk management strategies; the proliferation of Internet sites for alternative investments; and the recent dramatic increase in the number of hedge funds being organized. About 2,000 new hedge funds were created in 1999 alone, according to Tremont Advisers, Inc., a hedge fund consulting firm, raising the total number of hedge funds to more than 6,000.

In this article the trends and their implications for the alternative investment area, especially regarding the key issues of increased use of alternative investments by traditional institutional investors, the structure and ownership of the industry, the changing relationship between private equity and hedge funds, and the issues involved in the valuation of hedge funds are examined.

INDUSTRY OVERVIEW

Hedge funds were once differentiated from traditional investment management firms by several traits. First, hedge funds typically were able to take short as well as long positions, primarily in equities, enabling them to protect assets during market downturns. This no longer necessarily serves to distinguish hedge funds since certain mutual funds and traditional asset managers may also take short positions, especially the market-neutral investment managers. In fact, the majority of hedge funds are now long-only or long equity bias funds in equities, fixed income securities or commodities. Two other hedge funds traits, the use of leverage and derivatives, have also been preempted by traditional fund managers and, with the increased use of indexed products, may be more widely used by investors in the future.

Hedge funds are now commonly defined by their structure. They are private investment pools organized as limited partnerships or limited liability corporations with the investment manager as general partner and investors as limited partners. These funds generally charge a performance fee on top of a management fee. Finally, in most if not all hedge funds, the fund principals have their own capital at risk in addition to funds raised from clients. Because many hedge funds are organized as offshore vehicles or have fewer than 499 limited partners, they are largely free of government regulations.

Hedge funds have evolved to encompass a wide range of styles including trend-following, market-neutral, relative value, macro, event-driven, arbitrage, distressed securities, investments in private equity, and LBOs. Nearly one-half of these funds were entirely invested in equities, compared to only 5% that were invested in bonds and 4.8% in futures and derivatives (Cerulli and Associates, [1999]). This wide range of markets and instruments and the relative lack of correlation of some hedge funds with traditional investments and popular indexes have increased their attractiveness as a source of diversification in investment portfolios.

The wide diversity of investment strategies subsumed under the hedge fund rubric is indicated by Exhibit 1 below, which provides the *Managed Account Report's* typology of hedge funds along with the definition of their trading strategies.

PRIVATE EQUITY AS ALTERNATIVE INVESTMENT

There is some disagreement as to whether hedge funds and traditional private equity investments (venture

capital, LBO, and mergers and acquisition investment programs) should be jointly considered as alternative investments. The arguments for common treatment are that they share a similar organizational structure (i.e., limited partnership) and both have relatively low correlations with traditional stock and bond market investments. On the other hand, there are significant differences. Private equity assets are sourced primarily from institutions and are substantially less liquid than most hedge funds, investing in nontraded equity and debt infusions rather than publicly traded stocks, bonds, and derivative instruments.

Despite these differences, we believe that private equity investments and hedge funds will become more closely aligned in the future and that any analysis of hedge funds should therefore consider the private equity universe as well. If the private equity investment segment continues its exponential growth (see Exhibit 2), private equity firms may well acquire existing hedge funds or start their own, as the investment focuses of many hedge funds and private equity funds are converging on high technology investing and the Internet. Because private equity is more solidly entrenched with institutional investors than hedge funds, the former may help the latter with institutional clients.

High net worth investors account for the majority of hedge fund assets, with institutional investors making up just 25% of funds. Alternative asset class investments by pension funds, endowments and other institutional investors seeking portfolio diversification and higher returns have grown steadily over the last several years. Non-profit institutions now have 7.3% of their assets in alternative investments including private equity, according to a recent report. Last year, the giant California Public Employees Retirement System Fund (Calpers), the largest U.S. pension fund, announced it planned to invest up to \$11.25 billion in hedge fund and other hybrid investments. Meanwhile, over 50% of European pension funds recently indicated that they would be invested in alternative investments in the near future.³

One of the key questions for the future growth of the alternative investment industry is the extent to which institutional investors will allocate a greater share of their assets to hedge funds. By one estimate, the assets managed by hedge funds will increase from approximately \$355 billion today to \$1.7 trillion in 2005. At least half of this \$1.7 trillion will come from institutional investors, a doubling of their 25% market share today.⁴

However, a number of issues may limit the increased commitment to hedge funds by institutional investors. The most pressing concerns are 1) periodic dramatic losses and

EXHIBIT 1

Hedge Fund Types

Style	Subtype	Comment/Description
Event-Driven	Distressed Securities	Securities of companies in reorganization and/or bankruptcy.
	Risk Arbitrage	Fund buys stock in a company being acquired and sells stock in its acquirers.
Fund of Funds	Diversified	Allocates capital to a variety of fund types.
	Niche	Allocates capital to one specific type of fund.
Global	International	Bottom-up-oriented equity investments around the world (except U.S.).
	Regional-Emerging	Manager invests in less mature financial markets. Usually focus on specific regions.
	Regional-Established	Focuses on opportunities in established markets (i.e., U.S., European, and Japanese).
Global Macro		The classic Soros-Steinhardt-Robertson type hedge fund using leverage and derivatives to enhance positions.
Long-Only Leveraged		Traditional equity fund with leverage and incentive fee.
Market-Neutral	Long/Short	Allocations on the long and short sides of the market.
	Convertible Arbitrage	Manager goes long convertible securities and short underlying equities.
	Stock Arbitrage	Fund buys a basket of stocks and sells short stock index futures contract, or reverse.
	Fixed income Arbitrage	Manager buys bonds and goes short instruments that replicate the owned bond.
Sector		Follows economic sectors and/or industries (e.g., large-cap, high-tech, etc.).
Short-Sellers		A hedge fund borrows stock and sells it, hoping to buy it back at a lower price.

outright fraud that stem from the lack of transparency and regulation of the hedge fund industry and from unexpected market movements; 2) the extreme fragmentation of alternative investments firms, which makes gathering information difficult and costly; and 3) the lack of widely accepted performance and style benchmarks to help impose consistency.

Other obstacles to wider acceptance of alternative investment include the high performance fees charged by fund managers and their resulting motivation to “swing for the fences” and maximize investment return by increasing leverage or assuming riskier positions.

INDUSTRY STRUCTURE AND ORGANIZATION

Similar to the worlds of mutual funds and investment managers, the hedge fund universe is likely to become segmented along two lines.⁵ One area of the universe will continue to be fragmented as it is geared toward high net

worth individuals, family trusts, overseas investors, and smaller institutions. The other will become dominated by a smaller number of large players that direct their activities to the larger institutional marketplace—the pension fund plan sponsors, endowments, and foundations. A number of private equity investment pools have already started to build their businesses with the objective of servicing institutional clients.

In the following discussion, how hedge funds are following mutual funds and institutional investment managers toward industry concentration and institutionalization is described.

SEGMENTATION OF THE HEDGE FUND UNIVERSE

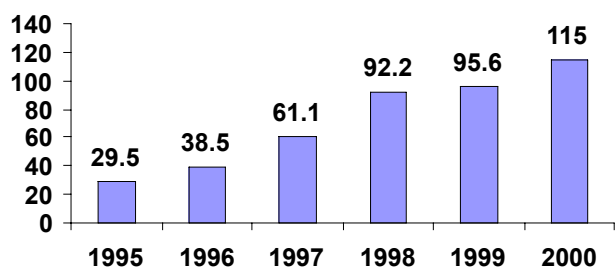
The hedge fund universe has always been fragmented, in large part because of the intrinsic independence of the typical hedge fund manager. The economics of the industry facilitate this fragmentation.

A single trader or group of traders can, with relatively small start-up cost and low overhead, become profitable with an asset base of as little as \$10 million. With a reasonable track record, these hedge fund managers can do moderately well with assets under management of only \$25 million.⁶ Because there are thousands of potential investors in hedge funds and barriers to entry are extremely low, it seems unlikely that we will see an end to the proliferation of new hedge funds in the near future.

However, at the same time, a part of the hedge funds industry is consolidating around a relatively small number of large players that are well defined by a group of identifiable trading styles. The fund-of-funds and investment consultants who have recently helped create usable performance benchmarks and identify and steer investments into a select group of hedge funds and commodity trading advisers (CTAs) have also aided the consolidation of the industry by channeling funds to the larger and more established managers.

EXHIBIT 2

New Commitments to U.S. Private Equity Funds (in \$billions)



Source: Private Equity Analyst, 1999, Institutional Investors and Alternative Investments.

As in mutual funds, the 6,000 hedge funds follow the 80/20 rule, in which a small number of firms tend to dominate. The top firms tend to be larger and better organized; have longer track records, multiple managers, and decision makers; offer diversified trading, improved systems, and risk management; and, partly due to their high visibility, may be more transparent and better understood by their clients. The barriers to entry into this select group of money managers are higher, requiring an identifiable brand name, significant funds under management, personnel and systems infrastructure and, most importantly, a verifiable track record of at least three and preferably five years. Many pension funds and consultants will not invest in a fund with a shorter track record.

TRADITIONAL INVESTMENT MANAGEMENT FIRMS

Traditional investment companies and financial institutions (mutual funds, institutional asset managers, bank-owned asset management firms, personal counselors and private banks) have been developing alternative investment programs, attracted by their high fees, incentive compensation, diversification from traditional investment vehicles, and ability to help retain top money managers. We believe that offering an alternative investment program will become increasingly important for asset management companies targeting institutional investors and high net worth individuals, setting the stage for increased competition in this area in the future.

The ability of mutual funds to offer hedge fund programs was made possible by the Securities and Exchange

Commission's removal of the short-short rule, which dictated that mutual funds can't derive more than 30% of their profits from short-term trading and short selling. (However, mutual funds are still required to have 300% coverage on debt. Thus they can only leverage up to 1/3 of their equity. Given the recent experience of highly leveraged hedge funds, this limitation may actually help mutual funds by preventing the excess that has proven to be the downfall of many hedge fund managers.) A number of mutual funds now offer hedge funds, especially sector and market-neutral funds, within their range of investments.

Other mutual funds and investment management companies have developed hybrids of hedge funds and mutual funds, sometimes described as "hedge fund lite." These include funds managed by Montgomery Capital Management, Gabelli Capital Management, Strong Capital Management, Franklin Templeton, Vanguard Company and Wellington Management, AIM, Caldwell & Orkin, State Street Research, Heartland, and CDC's MPT+ Funds.

The most prevalent direction of institutional movement into the hedge fund realm has been towards equity "market-neutral" (or "statistical arbitrage") funds that most closely resemble the original hedge fund structures of the 1950s. The earliest such fund was Barr Rosenberg's Market-Neutral Fund. Other examples include the Value Line Hedged Opportunity Fund, the Euclid Mutual Funds' Market-Neutral Fund and Montgomery Global Long Short.⁷

Other institutional investment managers have similarly begun to move into products offering traditional hedge-fund-like strategies. Alliance Capital has a total of 13 hedge funds, including the Alliance Select Investor Series Premier Portfolio, a \$300 million fund that uses warrants and options and holds short positions. The Alliance Premier Portfolio has achieved an annualized 49% investment return over five years and its management fee is pegged to fund performance. Gartmore Investment Management has two pooled hedge funds (one focused on European shares and the other on bonds and currencies), as does State Street Global Advisors. Munder Capital Management and Key Asset Management are planning to add hedge funds to their portfolios in the near future.

A number of institutional firms have pursued acquisition strategies to increase their menu of client offerings or for investment purposes. Capital Z Investments, linked to Zurich Financial Services Group, has invested in a number of hedge funds, including Galtere International (distressed debt), OneWorld Investments L.P. (emerging market), and L.C. Capital Partners. Asset Alliance Corporation manages \$1.2 billion through eight hedge funds: Bea-

EXHIBIT 3

Hedge Fund Results 1999

Hedge Fund Type	Percentage Change: 1999
Evaluation Associates Capital Markets Index (EACP)	23.5%
Relative Value	13.5
Long/Short Equity	2.5
Convertible Hedge	16.1
Bond Hedge	8.7
Multi-Strategy	27.7
Event Driven	16.3
Deal Arbitrage	14.2
Bankruptcy/Distressed	15.7
Multi-Strategy	19.1
Equity Hedge Funds	58.8
Domestic Long Biased	68.0
Domestic Opportunity	67.7
Global/International	41.3
Global Asset Allocators	4.3
Discretionary	15.3
Systematic	-6.0
Short Selling	-1.5
S&P 500 Composite	21.0%

Source: Evaluation Associates Capital Markets.

con Hill Asset Management, Bricoleur Capital Management, JMG Capital Management, Milestone Global Advisors, Pacific Assets Management, Silverado Capital Management, Trust Advisors, and Hedge Funds Services (BVI), Ltd. Grosvenor, an affiliate of Value Asset Management Inc., invested \$50 million in Sagamore, a convertible arbitrage hedge fund while Mesirow raised \$250 million to provide start-up and investment capital to hedge funds.

A growing number of banks offer a range of alternative investment programs for their high net worth individual client bases, indicative of the continuing strong interest of individuals in this product area. North American banks including Citicorp, Chase, Bank of America and Toronto Dominion are only a few of the major banks that offer these programs to investors, as do European banks, especially in the United Kingdom, France and Germany. Most recently, SunTrust Banks announced it will begin to offer hedge fund products to its clients via Alpha Investment Management. CDC has a large-scale internally managed hedge fund specializing in mortgage-backed securities, while Deutsche Bank manages hedge funds as

part of its alternative investment program. Of course, the largest bank alternative investment vehicles are the venture capital funds managed by Chase, Citicorp, First Union, Bank of America, and NationsBank. Several other banks also have hedge fund programs in development.

Among brokers, Morgan Stanley Dean Witter and Merrill Lynch have longstanding fund-of-fund programs for retail and institutional investors. Morgan Stanley Dean Witter's Wealth Management Services acquired Graystone Wealth Management Services to advise high net worth clients on hedge fund investments, while Goldman Sachs purchased Hull Securities to provide fund-of-funds expertise to its high net worth clients. Credit Suisse Asset Management has recently added Credit Suisse Prime Select Strategies, a hedge fund fund-of-funds, to service its high net worth clients.

In addition, there is a trend towards ownership of hedge funds by syndicates, mutual funds, investment managers and insurance companies, and the nascent development of hedge fund "supermarkets." The attractions of hedge fund ownership include their high fees and theoretically lower correlation to traditional investments than other financial vehicles. On the negative side, and an obstacle to further consolidation through institutional ownership, are the volatility of hedge fund earnings and the resulting difficulty of valuing hedge funds and the "independent" personalities of many hedge fund managers.

TRANSPARENCY AND RISK MANAGEMENT

Key concerns of institutional investors contemplating a hedge fund investment have been transparency and risk management. The fact that hedge funds are largely unregulated makes it difficult for investors to gain information on their strategies and positions. This lack of transparency makes hedge fund investments especially difficult for institutions, such as pension funds, that have a fiduciary responsibility. Because most hedge fund prospectuses allow their managers a wide latitude in investment instruments and strategies, "style drift," in which a hedge fund's investments fall outside their stated investment style, occurs more frequently than desired. Finally, investors are concerned with excessive leveraging, as in the case of Long Term Capital Management.

These concerns are being dealt with at a number of levels: regulatory, legislative, industry and banking, resulting in improvements in the transparency and risk management practices of the leading hedge funds. We believe that transparency will improve in the future as a result of

pressure from important investors, credit providers (i.e., banks and brokers), government and regulatory bodies, and the Internet's relentless spotlight.

Following the Long Term Capital Management bailout, in which 12 institutions put up \$3.625 billion to rescue a fund whose market exposure, unknown to some of its creditors, may have surpassed \$200 billion, banks and brokers have become increasingly vigilant about their hedge fund exposure. There is no doubt that banks and brokers have been less willing to extend credit (the ultimate source of leverage for hedge funds) without extensive due diligence. The Securities and Exchange Commission, U.S. Congress and Federal Reserve Board have also increased pressure and threatened regulation of brokers (and hedge funds) to improve their monitoring of hedge fund risk and exposure.

One trend worth noting is the growing link between pension funds and prime brokers in which the brokers collect information for their pension fund clients on hedge funds' positions, and risks. Morgan Stanley, Bear Stearns, and Goldman Sachs have all undertaken this role for clients. The Risk Control Division of Bear Stearns Securities Corporation, for example, has developed a tool that allows hedge fund managers to demonstrate to clients how the fund's portfolio would respond under different market or interest rate scenarios. The Bear Stearns Risk Analytic Control System stress tests hedge fund portfolios across 200 hypothetical market scenarios and highlights results from the point of view of liquidity, security risk, and concentration in specific markets.

Another development that promises improved transparency for hedge fund investors is the growing number of Internet sites that have begun reporting on hedge fund performance. At least two hedge fund Internet sites report daily NAVs for a growing number of funds. Standard & Poor's has started a service with Ernst & Young that tracks the actual positions of funds and evaluates their risk in normal markets and financial crises. More than a dozen websites now provide investors with information on hedge fund and private equity performance, allowing a level of scrutiny not previously available. We are convinced that this trend will only accelerate in the future and prove to be an important source of hedge fund transparency.

Increasing professionalization of the hedge fund industry has also led to greater transparency and improved risk management practices. There are an increasing number of fund managers who have experienced at least two financial crises and have track records that exceed five years. Many of these managers came out of traditional

investment management organizations, where transparency and risk management practices are more fully developed and taken for granted.

RISK MANAGEMENT

Hedge fund managers have come under the same pressure as all financial institutions to measure, communicate, and control the risk of their market positions.⁸ This pressure comes from a variety of sources: clients, government regulators, international associations, Congress and the investment community. The result has been the widespread adoption of state-of-the-art risk management techniques such as Value-at-Risk⁹ and Monte Carlo simulations, scenario analyses, stress testing, and portfolio optimization.

Unfortunately, none of these risk management strategies are able to do more than extend the recent past into the future, making them less useful for anticipating future developments, especially those that deviate substantially from recent events. It seems likely that the hedge fund community will continue to suffer from over-leveraging as market volatility declines in the near term, setting up many funds for larger than anticipated losses as volatility returns.¹⁰

REGULATION AND LEGISLATION

Government regulation and legislation are a constant threat to the hedge funds' status as stateless entities and their sometimes-visible role in relatively small and illiquid markets. In fact, as their importance increases along with the assets they manage, and crises continue to occur, we believe that some form of regulation will be inevitable. In recent years, the Capital Markets Subcommittee of the House of Representatives has debated, and may soon pass, regulation that would require hedge funds with assets over \$3 billion or that are part of a family with over \$20 billion in assets under management to provide detailed financial information every quarter, disclose their leveraging, use of derivatives, asset size, and market risk. Even if passed, the legislation raises the bar so high that relatively few hedge funds will be impacted.

The President's Working Group (a joint Treasury Department and Federal Reserve Board group) has issued its own recommendations on hedge fund regulation. Separately, the Basel Committee on Banking Supervision (part of the Bank for International Settlements) proposed new standards for "highly leveraged institutions" (hedge funds), including loan limits and improved information on investment risk.

In a more modest approach, twelve Wall Street firms sought to establish a code of practice for banks and securities firms on how the market extends credit to leveraged positions, issuing their own report, "Improving Counterparty Risk Management," in June 1999. One important result of these initiatives (and the LTCM losses) has already been seen: banks are markedly less willing to provide capital to hedge funds to increase their leverage.

Before the most recent debacles, the 1997 National Securities Market Improvement Act (3)(c) (7) raised investment pool limits from 99 investors to 499. This Act also provided for new exemptions for qualified individual purchasers with \$5 million in investments, for family companies with \$5 million in investments, and for persons who own and invest on a discretionary basis at least \$25 million in investments (on their own or others' behalf) if each beneficial owner of the company's securities is a qualified purchaser. These changes effectively increased the number of hedge funds and investors that would be exempt from government regulation in marked contrast to the trends described above that seek to increase government regulation.

STATISTICAL RESULTS: PORTFOLIO AND INVESTMENT DIVERSIFICATION

The analytical argument for investing in hedge funds must address four factors: first, the wide variety of styles and types of hedge fund makes generalizations difficult; second, hedge funds sometimes change styles without notification; third, unsuccessful hedge funds tend to go out of business and are not included in most analyses; finally, analysis by Barra indicates that it takes 16 years of data to conclude that an active investment manager is actually in the top quartile of results, a track record not achieved by many managers.¹¹ By some estimates, the "survivorship bias" in most hedge fund performance data overstates average annualized returns by 2% or more.

As a result of the first and second factors, the literature shows widespread disagreement regarding the performance, style consistency, volatility, and portfolio benefits of hedge funds. A full statistical analysis of this issue is beyond the scope of this article. We therefore limit ourselves to a few points related to the factors above.

Most analysts conclude that alternative investments, as an asset class, have a role to play in diversified investment portfolios, although performance varies widely by hedge fund style and methodology. Hedge funds offer diversification benefits to portfolios otherwise consisting

only of traditional bonds and stocks because of the less than perfect correlation to major market movements. However, as we point out below, this diversification benefit has decreased in recent years with the increase of the number of hedge funds that are primarily long stocks and bonds. Additionally, because of their ability to go short, hedge funds can theoretically provide at least a partial hedge against declining stock markets.

While hedge funds outperform passive benchmarks over several up and down cycles, they are unlikely to outperform passive benchmark indexes for shorter periods as when the indexes are well above their long-term historical average. This has been made clear over the past four years when few hedge funds were able to beat the stock market indexes.

While hedge fund volatility has been a long-standing argument against these products, the increased volatility of stocks and bonds (and their increased correlation to each other both domestically and internationally) has made the traditional volatility of hedge funds less of a negative factor than in the past. In fact, hedge funds and commodities trading advisors have been shown to reduce the volatility of an investment portfolio composed only of stocks and bonds.¹²

One key consideration in the development of hedge fund indexes is the extent to which hedge funds actually do trade along a number of definable styles that are consistent over time. The evidence here is that the hedge fund universe has begun to develop standardized trading styles and results, which has allowed the development of benchmarks and indexes for alternative investments.

For example, Martin [1998] has conducted an extensive analysis of the relationship between hedge fund and CTA returns and the volatility of these returns. The results show that alternative investments do indeed cluster into eight groupings (or styles): managed futures, market arbitrage, event-driven, global established, emerging market Asia, emerging market Latin America, long equity, and short equity. In addition, the returns and risks of these hedge fund groupings are sensitive to underlying economic indicators, notably bond and stock market returns and swap spreads (spreads between government and corporate bonds indicating market perception of interest rate risk). This raises the possibility of the development of baskets of traditional stock and bond instruments that may replicate the performance of hedge funds at substantially lower costs and with much greater transparency.

A key finding of Martin's analysis is that "the benefits of proper style selection outweigh the returns to manager selection," since the choice of style explains

more of the differences in hedge fund performance than the particular hedge fund manager one chooses within each style. This may also be used in the future to counter the hedge fund managers' argument that they deserve a 1% management fee and 20% incentive fee.

In general, we expect that the fees charged by hedge funds (especially the incentive fees) will come under increasing pressure from institutional investors, who as a group are extremely fee-sensitive. This pressure will accelerate further if alternative investment (hedge fund and private equity) performance falters during a sustained correction in the stock or bond markets.

SOURCES OF HEDGE FUND PERFORMANCE

While the headlines go to LTCM and Princeton Economics, the true source of concern about the alternative investment universe should be its excessive reliance on a bull market in stocks and bonds and on the easy money that has been responsible for its growth and development. A large number of funds are, at base, dependent on a bull market, including market-neutral funds. Investors may not mind paying 1/20 during a bull market. But what happens if hedge funds do not hedge—that is, protect their assets during bear markets? It seems likely that investors will demand lower fees and reduce their hedge fund investments.

A recent study (Schneeweis and Spurgin [1998]) found that the movements in the S&P 500 accounted for 79% of the change in returns of U.S. equity hedge funds. Even more discouraging from a diversification standpoint, 63% of the return generated by international hedge funds was accounted for by movement in the S&P 500. Exhibit 3 reinforces this conclusion, showing that the strong performance of hedge funds in 1999—their return was greater than the S&P 500 for the first time in four years—came almost entirely from equity hedge funds, which are predominantly taking long (and sometimes leveraged) positions in stocks.

In addition, many nonequity funds are correlated with stock market movements through the interest rate, swaps and commodity markets. During periods of global financial shock, such as December 1994 and August 1998, declines in the stock market are accompanied by widening spreads in the interest rate markets. Finally, the “traditional” alternative investment areas, especially private equity, are also linked to a continued bull stock market.

This leads us to conclude that the alternative investment universe is heavily dependent on a continued bull equity market for their strong performance and asset growth,

while a bear market threatens to cause large-scale losses in many of the hedge funds and private equity funds. This in turn would cause many alternative investment firms to suffer sharp reductions in their valuation and may set the stage for large-scale industry consolidation. Of course, some far-seeing hedge fund managers may consider monetizing some of their new-found prosperity through a partial or full sale of their operation prior to any stock market correction. Another alternative for these managers is to hedge their clients' assets against a stock market downturn. However, the returns of the hedge fund community over the past year indicate that this is not a common strategy, at least at present.

HEDGE FUNDS AND THE INTERNET

The Internet appears to be poised to change the alternative investment universe as it has all other aspects of finance. The Internet is becoming an increasingly important information delivery and e-commerce channel in the alternative investment industry, as indicated by the growing number of alternative investment websites on the Internet. By making hedge fund information accessible to more investors, it appears inevitable that the Internet will promote greater transparency, price competition and standardization in the hedge fund world, mirroring its impact in the brokerage industry.

As hedge fund sites proliferate, marketing over the Internet will likely draw increased attention from U.S. regulatory agencies. Many expect that Internet-related developments in the hedge fund universe will result in heightened regulatory scrutiny with respect to access to fund information by qualified investors and limitations on hedge fund marketing over the Internet.

Three Internet sites are especially important for their comprehensive coverage of the hedge fund universe and also for their innovative features: *Hedgeworld.com*, *Hedgefundnet.com*, and *Plusfunds.com*. Their projected plans would, if successful, revolutionize the hedge fund industry.

HedgeWorld.com, which is partially owned by Tremont Advisers Inc., FITX Group Limited and Putnam Lovell, provides daily performance information on 2200 hedge funds, based on the CSFB/Tremont Hedge Fund Index, an asset-weighted index that includes nine sub-indexes. Its goal is to become the industry standard for hedge fund performance measurement.

In a related development, HedgeWorld Limited (a Bermuda-based provider of online services to the hedge fund industry) has joined the Bermuda Stock Exchange of Hamilton to create the HedgeTrust Exchange, the first regulated

exchange for hedge funds based outside the U.S. The HedgeTrust Exchange will match buyers with sellers of offshore hedge funds over the Bermuda Stock Exchange. Trades will be made through Tremont Securities, a registered broker-dealer with offices in Rye, New York.

HedgeFund.net provides qualified investors with free performance information on over 1,000 hedge funds as well as publishing daily calculations of 33 hedge fund indexes. The firm claims to have over 5,000 investors using its site.

PlusFunds.com defines itself as “the first independent marketplace” for the global hedge fund industry. A powerful combination of Standard & Poor’s, Ernst & Young, Advent Software, Risk Metrics, and the Bermuda Stock Exchange, PlusFunds.com has a number of unique features. It provides real-time, tick by tick, Net Asset Values (NAV) of hedge fund shares for participating hedge funds. Forty-two hedge funds with \$20 billion in assets under management are currently participating; PlusFunds.com expects other hedge funds will join at the request of their clients. In addition, the site provides a range of risk measures including Value-at-Risk (VaR), likely maximum changes over various time frames, and concentration analysis. It also provides an interesting analysis of how the fund would have performed over previous catastrophic periods. Finally, the company says it will provide electronic trading in hedge fund shares on the Bermuda Stock Exchange.

A newly created site, *hedgebay.com*, indicates how radically the Internet may change the alternative investment universe. Modeled after E-bay.com, the on-line auction site, *hedgebay.com* allows registered users to bid on and offer shares in well-known hedge funds including those of Soros and Kovner, with the clearing taking place through the Bermuda Stock Exchange or directly between the buyers and sellers.

SELECTED LIST OF WEBSITES WITH HEDGE FUND CONTENT

4 Hedge Funds.com (<http://www.4hedgefunds.com>)
Alternative Investment Management Association (<http://www.aima.org>)
Alvest (<http://www.altvest.com>)
CTA Online (<http://www.cta-online.com>)
Credit Suisse First Boston/Tremont Index (<http://www.hedgeindex.com>)
Eurohedge (<http://www.eurohedge.co.uk>)
Fund of Funds.com (<http://www.fundoffunds.com>)
Hedge Advisors, Inc. (<http://www.hedgeadvisors.com>)

Hedgebay (<http://www.hedgebay.com>)
Hedge Fund 411 (<http://www.hedgefund411.com>)
Hedge Fund Consistency Index (<http://hedgefund-index.com>)
Hedge Fund Association (<http://www.thehfa.org>)
Hedge Fund Net (<http://www.hedgefund.net>)
Hedge Fund News (<http://www.hedgefund-news.com>)
Hedge Fund Center (<http://www.hedgefundcenter.com>)
Hedge Fund Research (<http://www.hfr.com>)
Hedge Funds Services (BVI) Ltd (<http://www.hsfltd.com>)
Hedge Manager Review (<http://www.hedgemanager.com>)
HedgeScan (<http://www.hedgescan.com>)
HedgeWorld (<http://www.hedgeworld.com>)
Hennessee Hedge Fund Advisory Group (<http://www.hedgefund.com>)
Magnum Funds (<http://www.magnumfund.com>)
Managed Accounts Report (<http://www.marhedge.com>)
Managed Funds Association (<http://www.mfainfor.com>)
Plusfunds (<http://www.plusfunds.com>)
RRCM.com (<http://www.rrcm.com>)
Van Hedge Fund Advisors (<http://www.van-hedge.com>)

CONCLUSIONS

The rapid evolutionary changes in the hedge fund industry has led to an increasing number of hedge fund strategies as well as competing products. Moreover, new regulation and governmental oversight may continue to increase as the industry itself expands. However, the extent of funds under management as well as increased government oversight will be determined primarily by the growth in the industry itself and its relative performance to competing products.

ENDNOTES

¹See Cerulli Associates Inc. [1999].

²For an introduction to the hedge fund universe, see Crerend [1998]. Given the number and diversity of hedge funds, the general statements in this report primarily refer to the larger and more established firms.

³See Goldman Sachs and Frank Russell [1999].

⁴See Rao and Szilagyi [1998].

⁵Two recent studies have found similar trends toward concentration in related investment management industries. Hedge funds are compared with mutual funds in Rama and Szilagyi, *ibid*, while and his colleagues compare financial advisors with institutional funds managers (see Hurley et al. [1999]).

⁶Hedge funds typically charge 1% management fee on assets under management and 20% of any trading profit they make above a benchmark (typically LIBOR or a “high water mark”). Thus, in a year where trading profits are 20%, a hedge fund managing \$10 million will earn a management fee of \$100,000 and a performance fee of \$400,000. With \$25 million under management, revenues climb to \$1.25 million.

⁷At present, only 3–5% of defined contribution plans offer long/short programs, presenting a great opportunity for growth of this product, especially if the stock market shows signs of weakness.

⁸A critical step in the institutionalization of the hedge fund industry is the continued development of consistent performance measurement and style analysis to track the performance and strategies of hedge funds. Several vendors, including Managed Account Reports and Hedge Fund Research, offer calculation of performance for various hedge fund groups. More recently, Credit Suisse First Boston and Morgan Stanley have, or are in the process of introducing, competing asset-weighted hedge fund indexes, which are used by hedge funds and investors as benchmarks for hedge funds to compare performance and consistency of style.

⁹A group within the hedge fund community—Caxton Corporation, Kingdom Capital Management LLC, Moore Capital Management, Inc., Soros Fund Management LLC, and Tudor Investment Corporation—has recently made the first attempt at self-regulation by propagating a set of risk management guidelines in a sponsored report, “Sound Practices for Hedge Fund Managers.” This report, issued as a response to the April 1999 report of the President’s Working Group on Financial Markets, “Hedge Funds, Leverage and the Lessons of Long-Term Capital Management,” concludes that hedge fund managers should conduct stress tests of various market conditions, use several measures of risk, make “periodic” reports to lenders and counterparties, and coordinate with counterparties and regulators to develop an approach to public disclosure.

¹⁰See Zask [2000].

¹¹Barra, Inc., Seven Quantitative Insights into Active Management, 1999.

¹²See Schneeweis and Spurgin [1998].

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