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KEY FINDINGS AND OBSERVATIONS

- While individual investors make up more than half of all hedge-fund shareholders, foundations, pension funds, and university endowments are increasing their stake.
- Even though hedge funds remain largely unregulated, the legal environment is rapidly changing toward increased disclosure and transparency.
- Hedge funds are largely domiciled “offshore”, but hedge-fund managers are located primarily in the United States, particularly New York, California, Illinois, Connecticut and Florida.
- The overall performance of hedge funds (Credit Suisse/Tremont HFI, 1994-2005) as an asset class is about the same as that of U.S. equities (S&P 500).
- On an absolute-returns basis, hedge funds underperformed the stock market during the “bull market” run-up from 1995 to 1999, while on average they outperformed the market during the “bear market” through 2005.
- The real benefit of hedge funds lies in risk management. This contrasts with the negative publicity that such alternative investment vehicles receive for perceived lack of regulation, transparency, and disclosure.
- During 1994-2005, most hedge-fund “styles” provided solid absolute and risk-adjusted returns.
- The best absolute return styles were Global Macro, Event-Driven-*Distressed*, and Long-Short Equity. The best hedge-fund styles on a risk-adjusted basis (Sharpe ratio) were Equity Market Neutral, E.D.-*Distressed*, and Multi-Strategy (combination).
- The worst hedge-fund strategies on a risk-adjusted return basis (1994-2005) were Emerging Markets, Managed Futures, and Dedicated Short Bias.
- Given the risk-management benefit of hedge funds, institutional investors are likely to increase their hedge-fund stakes.
- As the regulatory environment tightens, managers will likely place greater emphasis on risk controls, which may limit abnormally high returns.
- As competition increases, the ability to find top performing managers may become more difficult. Fund managers may also move back to traditional asset management venues.
- As the stock market outlook improves, there may be a shift from hedge funds back to indexing.
- On balance, hedge funds have been clearly worth the “bang for the buck” for fund indexers and active investors.

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I. INTRODUCTION

Any casual following of the financial news would reveal that hedge funds have experienced phenomenal growth, especially over the last fifteen years. In terms of numbers, there were an estimated 8000 hedge funds in 2005, up from only 500 in 1990. During this fifteen-year period assets under management have grown from an estimated $50 billion to $1.5 trillion (*Financial Times*, February 8, 2006). Moreover, the hedge-fund industry has spawned a "fund of funds" business, which has slowly become the preferred way of investing in hedge funds, especially for institutional investors. Today, the number of these combination funds is estimated at about 4000. (Kat and Palaro, 2005).

Until recently, hedge funds have been popular primarily with high-net-worth individuals. While this is true even today (individual investors make up more than half of all hedge-fund shareholders), an increasingly larger proportion of hedge-fund investors are pensions, retirement plans, endowments, and corporations (see Exhibit 1). As further evidence of the growth of hedge-fund popularity, Exhibit 2 reveals that the largest pension plans doubled their stake in alternatives, including hedge funds, over a ten-year period between 1995 and 2005. As a specific example, the March 22, 2006 issue of the *Boston Globe* reported that hedge funds account for 5 percent of total assets of the $40 billion of the Massachusetts Pension Reserves Investment Trust. The pension fund's board plans to increase that share to 10 percent by the end of this year.

A Historical Perspective

Although the common perception is that a hedge-fund is a relatively new concept, this investment alternative began in the 1940s when Alfred Winslow Jones first combined a leveraged long-stock position with a portfolio of short-stock positions in an investment fund; see Inglis (2005) for a more detailed history of the industry. The idea was based on the principle that fund performance depends on the ability to pick stocks with superior performance (alpha) rather than on market direction. This strategy outperformed the returns of mutual funds during those times, which led to an increased popularity of hedge funds in the 1960s. During that decade the nature of hedge-fund management changed, with hedge-fund managers leveraging rather than hedging their positions. When the markets did not perform as robustly as expected, the risky strategies did not prosper and from the mid-1960s to the end of the 1970s the hedge-fund industry went through a period of turmoil.

With the advent and burgeoning of the derivatives market, the hedge-fund market began to flourish. Hedge-fund managers started utilizing more sophisticated strategies and offering a wider variety of products. At the height of the bull market between 1995 and 1999, hedge funds posted unprecedented high returns (although remaining below the return on the S&P 500 Index), engendering a rush among traditional money managers to become hedge-fund managers. The end of the 1990’s turned out to be an interesting period for the industry. Cash flows into hedge funds, which peaked at $22.2 billion in 1997, were down to a mere $3.3 billion by 1999 (*Tremont Capital Management*). Perhaps the booming stock market, with annual returns in the 20%-40% range, made the search for alternative asset classes unnecessary. However, in 1999, as net inflows into hedge funds reached their abyss, hedge fund alternatives--as measured by the Credit Suisse/Tremont Hedge Fund Index (HFI)--posted a respectable gain of 18% in the presence of the 21% rise in the S&P 500 Index. In the three subsequent years, hedge funds on the average posted a cumulative return gain of 21% while the S&P 500 was actually *down* some 43%.

The strong performance of hedge funds during 2000-2002 turned out to be attractive to investors who were frantically looking for alternative investment opportunities**.** Net inflows to hedge funds were $72 billion in 2003 and $123 billion in 2004. As the markets recovered, hedge-fund returns sustained, although once again the S&P 500 index returns proved to be stronger. Although industry returns remained strong, the post tech stock boom period led to the downfall of many hedge funds. With the recovery of the market and continued market volatility, the most successful hedge funds have captured excess returns while lowering volatility, thereby preserving capital and delivering positive returns under all market conditions. 2005 saw a global decline in hedge-fund inflows as compared to the record setting numbers in 2004. A combination of weaker hedge-fund performance both in absolute terms and relative to more traditional funds and a decline in investor sentiment after the 2005 credit rating downgrades of the motor industry, which left a number of funds with substantial losses, likely explain declining inflows (*Financial Times*, February 8, 2006).

Hedge Funds and Massachusetts

From a local perspective, Massachusetts has participated in the hedge fund boom, but more or less on average in terms of state-wide capital raised and the number of hedge funds (shown later). In 2003, the *Institutional Investor* reported that just under 7 percent of all hedge-fund capital was in Massachusetts, ahead of Texas, Illinois and Maryland, but behind New York, Connecticut and California. This capital-based breakdown is shown in Exhibit 3.[i] That being said, some significant players in the Boston-area mutual-fund industry have recently moved into hedge funds and other "private" investment pools. According to an article in the *Boston Business Journal* (March 3-9, 2006, Vol. 26, No. 5) Fidelity Investments, MFS Investment Management, Wellington Management Company, Pioneer Investment Management Inc., Putnam Investments and State Street Corporation are some of the well-known names in Massachusetts that have jumped into the private fund management arena (see Exhibit 4a for a sample of private funds managed by Boston-area mutual fund companies and Exhibit 4b for a list of the ten largest private fund managers in Massachusetts).

The rest of our hedge-fund survey proceeds as follows. Section II provides an overview of the types of hedge funds. Section III sheds light on the hedge-fund regulatory environment. Section IV looks at hedge-fund domiciles and manager locations, according to comprehensive data provided from the Alternative Asset Center (AAC). Section V looks at hedge-fund performance, based on the Credit Suisse/Tremont HFI and hedge-fund styles. Fund performance is measured in absolute terms and relative to a Capital Market Line (CML) analysis of portfolio returns and risk. Section VI concludes with two questions regarding "Where have we been?" and "Where are we going with hedge funds?

II. TYPES OF HEDGE FUNDS

A popular notion is that hedge funds post volatile returns, utilize global macro strategies, take risky positions in stocks, bonds, currencies, and/or commodities, and are very highly leveraged. In fact, less than five percent of hedge funds fall under the category of global macro funds or other seemingly high-risk funds. Most funds either do not use derivatives or use them only for hedging and many funds are not highly leveraged. A partial listing of hedge-fund types or what is generally known in the industry as hedge-fund "styles" is as follows (more details can be obtained from www.employees.org):

- Convertible Arbitrage**:** This strategy is identified by hedge investing in the convertible securities of a company. A typical investment is to long the convertible bond and short the common stock of the same company. Positions are designed to generate profits from the fixed income security as well as the short sale of stock, while protecting principal from market moves.
- Fixed Income Arbitrage**:** this strategy includes interest-rate-swap arbitrage, US and non-US government bond arbitrage, forward-yield-curve arbitrage, mortgage-backed securities arbitrage, capital-structure arbitrage, and closed-end fund arbitrage. Managers attempt to hedge out most market risk by taking offsetting positions, often in different securities of the same issuer and on obtaining returns with low or no correlation to bond (and equity) markets.
- Event-Driven**:** strategies are defined as equity-oriented investing designed to capture price movement generated by anticipated corporate actions or events.

These include:

(a) E.D.-*Risk Arbitrage*: simultaneously take long and short positions, respectively, in the acquired and acquirer companies in a merger or acquisition. The idea is that corporate bidders typically overpay for what they get.

(b) E.D.-*Distressed Securities*: buys deeply discounted equity, debt or trade claims of firms facing financial distress (bankruptcy or reorganization). The managers hope to gain from the market's lack of understanding of the true value of the company and its securities. Moreover, these securities may be undervalued because institutional investors are not allowed to invest in less than investment grade securities.

- Global Macro**:** aims to profit from changes in global economies typically brought about by shifts in government policy that impact interest rates, in turn affecting currency, bond, and stock markets. Many of these funds participate simultaneously in developed and emerging economies' equity, bond, currency and commodities markets.
- Equity Market Neutral**:** This strategy is designed to exploit equity market inefficiencies and invests equally in long and short equity portfolios, generally in the same sectors of the market. The overriding performance goal of this market-neutral (or beta-equal-zero) strategy is to add positive "alpha" to the risk-free rate of interest.
- Long/Short Equity**:** This directional strategy involves equity-oriented investing on both the long and short sides of the market. Managers have the ability to shift from value to growth, from small- to medium- to large-capitalization stocks, and from a net-long position to a net-short position. The focus may be regional, such as long/short US or European equity, or sector-specific, such as long and short technology or healthcare stocks. A recent innovation uses economic profit (EVA) analysis to identify long and short equities based on the fundamentals of wealth creation (Abate, Grant, and Stewart, 2005).

- Short Selling**:** Dedicated short investors sell securities short in anticipation of being able to buy them at a future date at a lower price. The manager's assessment is that the market has overvalued the security, or anticipates decline in the price due to events such as accounting irregularities, new competition and change of management. Once a popular category of hedge funds, the strategy fell out of fashion during the long bull market in the 1990s when it became difficult to implement. A new category, "dedicated short bias", which maintains a net short position, has emerged more recently.
- Managed Futures**:** This strategy is geared toward listed financial and commodity futures markets and currency markets around the world. The managers are usually referred to as Commodity Trading Advisors, or CTAs. Trading disciplines are generally systematic (mechanical systems) or discretionary. Systematic traders tend to use price and market-specific information (often technical) to make trading decisions, while discretionary managers use a judgmental approach.
- Emerging Markets: This strategy involves investing in the securities of emerging market regions or countries where the inflation rate is relatively high and the growth rate is deemed volatile.

III. OVERVIEW OF THE HEDGE FUND REGULATORY ENVIRONMENT

Hedge funds are exempt from regulation under the Securities Act of 1933 because their securities are not offered publicly. In addition, since investment in a particular hedge-fund is limited to fewer than 100 “accredited investors”[ii], these funds are exempt from the Investment Company Act of 1940. As a result, hedge funds are exempt from the disclosure and reporting requirements to which other funds are subject. In 1996 the National Securities Markets Improvement Act was introduced; the Act expanded the exclusions to funds that have fewer than 500 investors, each with a net worth of at least $5 million. However, the exemptions do come with a price tag; hedge funds are not allowed to advertise or solicit business in any manner. In fact, voluntary disclosure of positions and other investment information may be viewed as soliciting business, discouraging many hedge funds from making voluntary disclosures to avoid scrutiny under the Investment Company Act.

All this does not imply that hedge funds can operate completely without disclosing their financial activities. For example, even though hedge funds are not required to make disclosures to regulators and the public, by law they do have to provide information on their financial activities to their shareholders. Also, hedge funds that trade in derivatives exchanges and have US citizens as investors must register with the Commodity Futures Trading Commission as Commodity Pool Operators, thereby subjecting them to the Commodity Exchange Act of 1936 (an Act established to regulate futures markets).

New regulation from the Securities and Exchange Commission (SEC) was introduced in 1999, in the wake of the near-collapse of Long Term Capital Management. Under the regulation a hedge-fund with more than $3 billion of capital or with assets exceeding $20 billion or with leverage ratios of more than 10:1 were now required to file quarterly reports with the Federal Reserve, the Treasury Department, the SEC and other investment interest groups. However, that regulation had little effect on the industry because it is estimated that only about 3 percent of hedge funds in the world have assets greater than $500 million and less than 5 percent of funds have leverage ratios of greater than 10:1.

Under a rule adopted in late 2004, hedge-fund firms have to register with the SEC by February 1, 2006. All advisors with at least $30 million in assets under management or at least fifteen individual investors are required to register. Funds that lock up investors' money for more than two years or are not accepting new investors are exempt from registration. Registration on "form ADV" of the SEC requires information on the educational background of the managers, their past business experience and past disciplinary problems, fee arrangements, and total assets under management. The SEC reports that more than 900 firms have registered since the beginning of 2005, along with others that had registered even before this rule was adopted. While this may be a further step toward tighter regulation of the hedge-fund industry, many observers point out that reading ADVs may not be sufficient to replace researching a hedge-fund management team with interviews and questionnaires, or hiring consultants to investigate funds before investing in them.

IV: HEDGE-FUND DEMOGRAPHICS

In this section, we look at hedge-fund demographics in the context of (a) hedge-fund domiciles and (b) location of hedge-fund managers according to comprehensive data collected by the Alternative Asset Center (AAC). A breakdown of hedge-fund domicile, with a particular emphasis on U.S. versus non-U.S domiciled hedge funds is first provided, followed by a global-based breakdown of hedge-fund managers by location, particularly, U.S. stateside locations.

Hedge-fund Domiciles

Exhibit 5 provides a breakdown of hedge-fund domiciles for U.S. versus non-U.S.-based hedge funds according to data provided by AAC. Of the 1410 hedge funds covered in this database as of January 31, 2006, 764 (or 54%) of these funds were headquartered "offshore", including the Cayman Islands, British Virgin Islands, Bahamas, and Bermuda, while 312 hedge funds (or 22%) were domiciled in the United States. The exhibit also shows that 43 funds were domiciled in Ireland, with a balance of 291 funds (or 21%) domiciled in a category labeled "Other", consisting primarily of hedge funds domiciled in Western Europe, particularly France, Germany, and the United Kingdom.

Exhibit 6 provides a closer look at the breakdown of hedge-fund domicile by U.S. versus non-U.S.-domiciled funds. The exhibit shows that of the 764 hedge funds classified as "offshore", some 530 (or 38% of all funds) were domiciled in the Cayman Islands. In turn, a large number of offshore funds were domiciled as follows: British Virgin Islands (107 funds, 8% of the total), Bermuda (91 funds, 6% of the total), and the Bahamas (36 funds, 2% of the total). As before, the exhibit shows that Ireland made up 3% of reporting funds while Western Europe consists of some 20% of overall hedge funds covered by the Alternative Asset Center.

In turn, Exhibit 7 provides a state-wide breakdown of the overall number of U.S. domiciled hedge funds. Not surprisingly, we see that Delaware accounts for 235 (or 75%) of 312 domiciled U.S. hedge funds as listed in the AAC database. Following that, we see that no other U.S. state accounts for more than 5% of the total number of U.S. domiciled hedge funds. Notably, the exhibit shows that only 15 of the AAC reporting funds were domiciled in California (at 5%), 12 funds (at 4% each) were domiciled in Florida and New York, 11 funds were domiciled in Illinois, and 8 funds were domiciled in Connecticut. Moreover, the Alternative Asset Center reports that only 4 hedge funds were domiciled in Texas, 3 funds in Massachusetts, and 1 hedge-fund domiciled in New Jersey.

Hedge-fund Manager Location

A contrasting look at hedge-fund domicile versus geographic location of hedge-fund managers leads to some interesting observations. Unlike the breakdown of hedge funds by domicile (Exhibits 5 and 6), Exhibit 8 reveals that hedge-fund management is evenly split between U.S. domiciled managers and non-U.S. domiciled managers. Particularly, of the 1410 hedge funds reported by the Alternative Asset Center, some 730 of the funds (or 52%) were managed in the U.S., while 680 funds had fund managers located outside the U.S.

Exhibit 9 provides a breakdown of hedge-fund manager location by U.S. states as reported in AAC. The exhibit is interesting in that it shows a range of U.S. states where hedge-fund managers are domiciled along with the number of hedge-fund managers by states. Not surprisingly, most hedge-fund managers are domiciled in New York, with some 334 managers or 46% of total U.S. hedge-fund reporting managers in the AAC database. The second in line is California, which accounts for 106 (or 15%) of U.S. domiciled hedge-fund managers. All other states in AAC database account for less than

10% of U.S. domiciled fund managers.

Exhibit 10 provides a closer look at hedge-fund manager domicile with a listing of the top 10 U.S. states by hedge-fund manager location. Again, New York and California take up the first two U.S. manager domiciled positions, followed by Illinois, Connecticut, and Florida in positions three to five, with about 40-50 hedge funds with U.S. domiciled managers (or about 6% each). Next, Massachusetts is listed as number "six", with 32 reported U.S. domiciled hedge-fund managers (or about 4% of total) followed by Texas, New Jersey, Pennsylvania, and Minnesota, in positions seven to 10 respectively, each with less than 3% of reporting managers.

Exhibits 9 and 10 reveal that the top five U.S. states account for some 79% of hedge-fund manager domiciles, while the top 10 U.S. states account for about 90% of hedge-fund manager domiciles. Taken together (Exhibits 5-10), the reported hedge-fund demographics reveal that (a) most hedge funds are domiciled outside the United States, particularly in the Cayman Islands, and (b) to the extent that hedge funds are domiciled in the U.S., they are largely domiciled in Delaware. A sharply different picture emerges from the ACC database when ranking hedge funds by manager location. Notably, about one-half of reporting funds are managed in the United States, particularly New York, followed by California, Illinois, Connecticut and Florida.

V: HEDGE-FUND PERFORMANCE AND RISK

In this section we look at hedge-fund performance, with an eye toward assessing risk-adjusted return performance. First, we analyze the overall performance of hedge funds versus traditional assets such as equities and then we examine the performance of hedge funds in the context of a Capital Market Line (CML) assessment of performance versus risk. Following that, we look at a breakdown of the risk-adjusted performance of 10 hedge-fund “styles” (actually, 13 strategies if one includes a breakdown of the “Event Driven” classification) as represented by Credit Suisse/Tremont Hedge-fund Indices. Our hedge-fund performance and style assessment is based on the Credit Suisse/Tremont HFI and sub indices.

The Credit Suisse/Tremont sub indices parallel the hedge-fund strategies that we introduced before. The specific names of the 10 hedge-fund styles covered by Credit Suisse/Tremont include Convertible Arbitrage, Fixed Income Arbitrage, Event-Driven (including, E.D.-*Distressed*, E.D.-*Risk Arbitrage*, and *E.D. Multi-Strategy*), Global Macro, Long-Short Equity, Equity Market Neutral, Dedicated Short Bias, Managed Futures, Emerging Markets, and Multi-Strategy (combination). In our style-based performance assessment, we look at annualized returns, standard deviation of return (total risk), and risk-adjusted performance, measured by the Sharpe ratio. The Sharpe ratio is the annualized fund premium (return over risk-free rate) divided by the standard deviation of asset or portfolio return.

HFI: Absolute and Risk-Adjusted Returns

We first assess the performance of the Credit Suisse/Tremont HFI versus traditional assets including the S&P 500, the MSCI World Index, and U.S. Treasury Bills (a risk-free asset). In this context, Exhibit 11 shows the annualized returns over the 1994 to 2005 period (twelve years since inception) on the Credit Suisse/Tremont HFI versus three well-known assets. Based on annualized returns alone, hedge funds as an alternative asset class provided a return which, at about 10.5%, is competitive with that earned on U.S. equities. Moreover, the twelve-year HFI performance is considerably better than that observed on the MSCI World index and (not-surprisingly) U.S. Treasury Bills, with annualized returns of 8.4% and 3.84% respectively.

Exhibit 12 shows the performance of the Credit Suisse/Tremont HFI relative to a Capital Market Line. While Exhibit 11 reveals that the annualized return to hedge-fund investing is competitive with that of equity indexing (to the S&P500), Exhibit 12 highlights the benefit of hedge funds from a risk management perspective. Specifically, the latter exhibit shows that the annualized standard deviation on the Credit Suisse/Tremont HFI over the 1994 to 2005 period is about 8% (actually, 7.88%), while the comparable risk measure for the S&P500 was considerably higher, at 15% (14.77%). Moreover, Exhibit 12 shows that a CML-based strategy that combines the Credit Suisse/Tremont HFI with the risk-free asset provides better returns on a risk-adjusted basis than that observed on a two-asset portfolio consisting of the market index (S&P 500) and the risk free asset. In other words, the Sharpe ratio (slope of the CML) for the Credit Suisse/Tremont HFI is considerably higher than that observed on the S&P500, at 0.87 and 0.45, respectively.

Style-Based Performance and Risk

We now assess the performance of hedge funds by fixed income and equity "style". Exhibit 13 shows the annualized returns of the 10 hedge-fund-style classifications within the Credit Suisse/Tremont HFI. Again, we will illustrate hedge-fund performance over the twelve years (1994-2005) since inception of the Credit Suisse/Tremont hedge-fund indices. In this context, we see that the three highest performing hedge-fund styles, with absolute returns exceeding the 10.5% annualized return on the Credit Suisse/Tremont HFI and S&P500, were Global Macro, at 13.53%, Event Driven-*Distressed*, at 13.44%, and Long-Short Equity, at 11.90%. In turn, Exhibit 13 shows that the three hedge-fund styles with low-to-negative absolute returns were Managed Futures, at 6.36%, Fixed Income Arbitrage, at 6.28%, and Dedicated Short Bias, at -2.03%. As seen shortly, Managed Futures and Dedicated Short Bias styles were troubling because those strategies involve a high level of portfolio risk.

Exhibit 14 shows the performance of hedge-fund styles measured relative to the CML. In this exhibit, we see that the three best-performing hedge-fund styles as measured by absolute return, namely Global Macro, E.D.-*Distressed*, and Long-Short Equity, also provided attractive risk-adjusted returns. In each case, the annualized standard deviations, at about 11%, 6.5%, and 10%, respectively, were lower than that observed on the S&P 500 and MSCI World indexes, with volatility estimates near 15% and 14% respectively. Also, the Sharpe ratio for the high absolute performing hedge-fund styles, 0.87, 1.49, and 0.79, respectively, were considerably higher than corresponding reward-to-risk ratio for the reference equity indexes, S&P 500 and MSCI World, at 0.45 and 0.33.

A closer look at Exhibit 14 reveals that most of the hedge-fund styles outperformed the market on a risk-adjusted return basis. This is measured by a predominance of hedge-fund styles- including three high absolute return styles along with the low risk hedge-fund styles such as Equity Market Neutral, E.D.-*Risk Arbitrage*, Fixed Income Arbitrage, Convertible Arbitrage, and Multi Strategy (combination)-that plot above the CML. The three highest Sharpe ratios were observed on Equity Market Neutral, E.D.-*Distressed* (within Event-Driven), and Multi-Strategy, at 2.08, 1.49, and 1.28 respectively. In contrast, the worst performing hedge-fund styles on a risk-adjusted basis were Emerging Markets, Managed Futures, and (worst yet) Dedicated Short Bias, with Sharpe ratios of 0.28, 0.21, and -0.34.

Hedge Funds during Bull and Bear Markets

We also looked at hedge-fund performance during both "bull" and "bear" markets (not shown graphically). Here, we find that hedge funds as an asset class underperformed the stock market (S&P 500) during the six-year, "bull market" run-up to 1999, while on average they outperformed the market during the six-year "bear market" through 2005. As we noted before, hedge funds (overall) provided higher risk-adjusted returns for the 12 years since inception of the Credit Suisse/Tremont HFI, with the primary benefit coming from portfolio risk management (via risk reduction). Moreover, we observe a noticeable decrease in the risk of several hedge-fund styles, notably Global Macro and Long-Short Equity, when comparing risk-adjusted returns during the first half of the sample period, 1994-1999, with performance and risk considerations during the second half, 2000-2005.

VI: CONCLUSION

We conclude our hedge-fund survey in the context of two questions: “Hedge funds: Where have we been?”, and “Hedge funds: Where are we going?” Our reported findings on hedge-fund shareholders, the regulatory environment, demographics, and hedge-fund performance can be used to shed light on the first question. Here we observed that while individual investors still make up more than half of all hedge-fund shareholders, foundations, pension funds, and university endowments are increasing their stake in alternatives. While hedge funds still remain largely unregulated, the legal environment is rapidly moving toward increased disclosure and transparency. Moreover, while hedge funds are mostly domiciled “offshore”, hedge-fund managers are primarily located in the United States, particularly New York, California, Illinois, Connecticut, and Florida.

We find that the overall performance of hedge funds (measured by Credit Suisse/Tremont HFI, 1994-2005) as an asset class is about the same as that of U.S. equities (S&P 500). On an absolute-returns basis, hedge funds underperformed the stock market (S&P 500) during the six-year, “bull market” run-up to 1999, while on average they outperformed the stock market during the six-year “bear market” (or lull period) through 2005. Overall, we find that the benefit of hedge funds as an asset class lies in risk management. This finding is in sharp contrast to the often negative publicity that alternative investment vehicles receive because of their perceived lack of regulation, transparency and disclosure.

We also find that during 1994-2005 most hedge-fund “styles” provided solid absolute and risk-adjusted returns. The best absolute-return-performing styles were Global Macro, Event Driven-*Distressed*, and Long-Short Equity, each with returns exceeding the 10.5% annualized return on the S&P 500 and Credit Suisse/Tremont HFI benchmarks over the comparable period. The best performing hedge-fund styles on a risk-adjusted basis (Sharpe ratio) were Equity Market Neutral, E.D.-*Distressed*, and Multi-Strategy (combination). In turn, the worst performing hedge-fund strategies on a risk-adjusted returns basis (1994-2005) were Emerging Markets, Managed Futures, and Dedicated Short Bias (which was worst of all, with negative annualized return and high risk). On balance, we find that hedge funds have been clearly worth the "bang for the buck" for both passive (hedge-fund indexers) and active investors, since hedge-fund indices and (most) hedge-fund styles outperformed the market on a risk-adjusted returns basis.

In our answer to the second concluding question, "Hedge funds: Where are we going?", we suggest that given the return and risk-management benefits of hedge funds, investors (particularly institutional investors) will likely continue increasing their stake in these "just in time" alternatives. As the hedge-fund regulatory environment tightens, managers will likely place greater emphasis on risk controls, which may limit the potential for generating abnormally high returns. In turn, as competition heats up, the ability to find top performing managers may become more difficult. Also, due to increased operating costs arising from enhanced disclosure and reporting requirements, some hedge-fund managers may move back to traditional asset management, such as the mutual fund venue. As the stock market outlook improves, there could also be a shift away from hedge funds back to indexing.

In sum, we believe that hedge funds are here to stay! These alternative investments have already shaped the world of portfolio performance and, especially, risk management in a positive and meaningful way. Going forward, we temper our hedge-fund findings with the usual caveat that “past performance provides no guarantee of future performance.”

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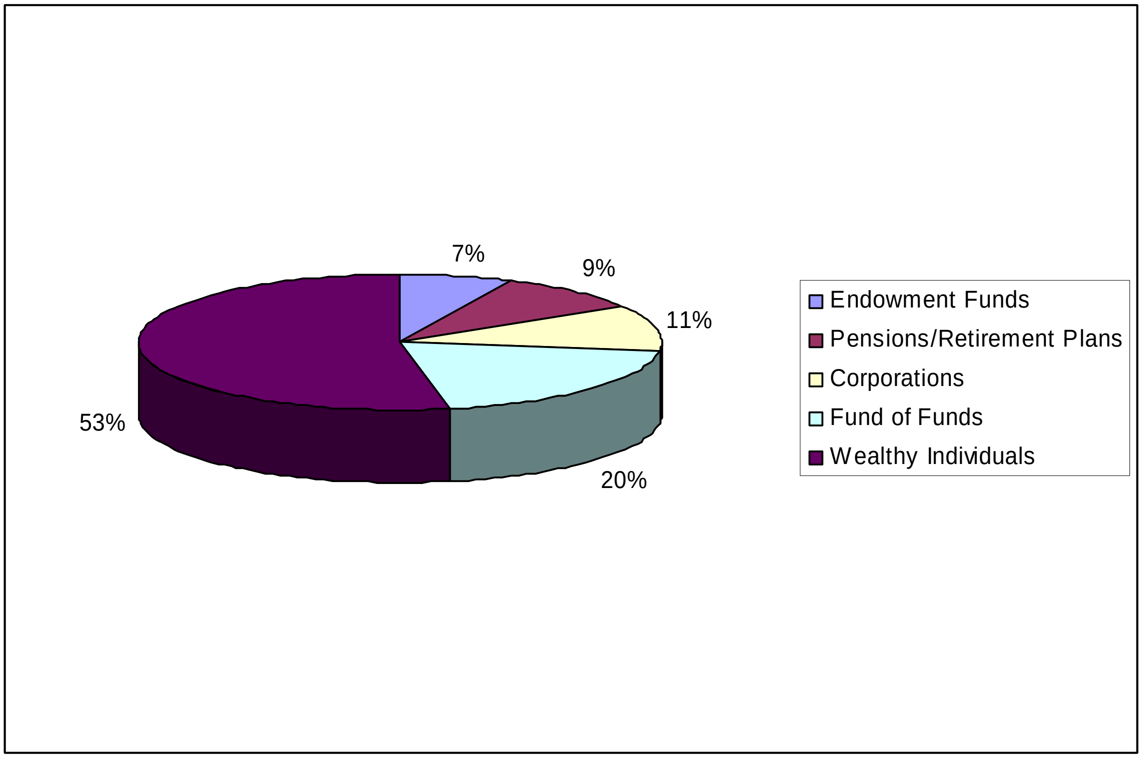
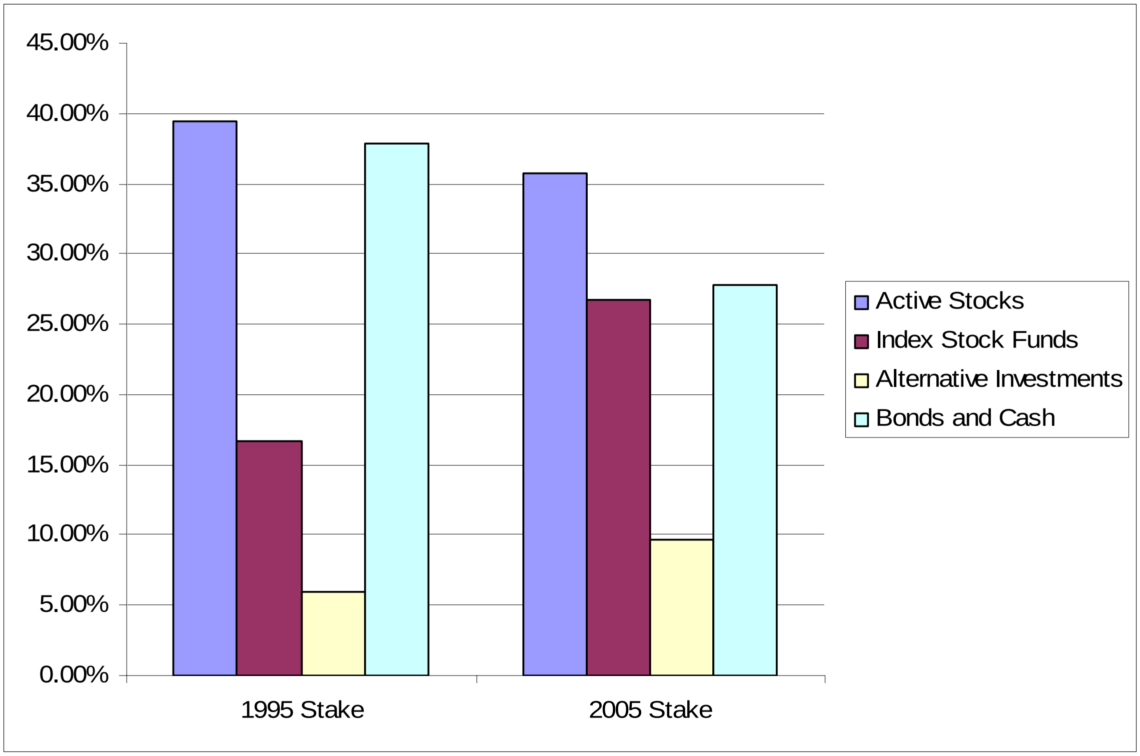
Exhibit 1: Hedge-fund Investors



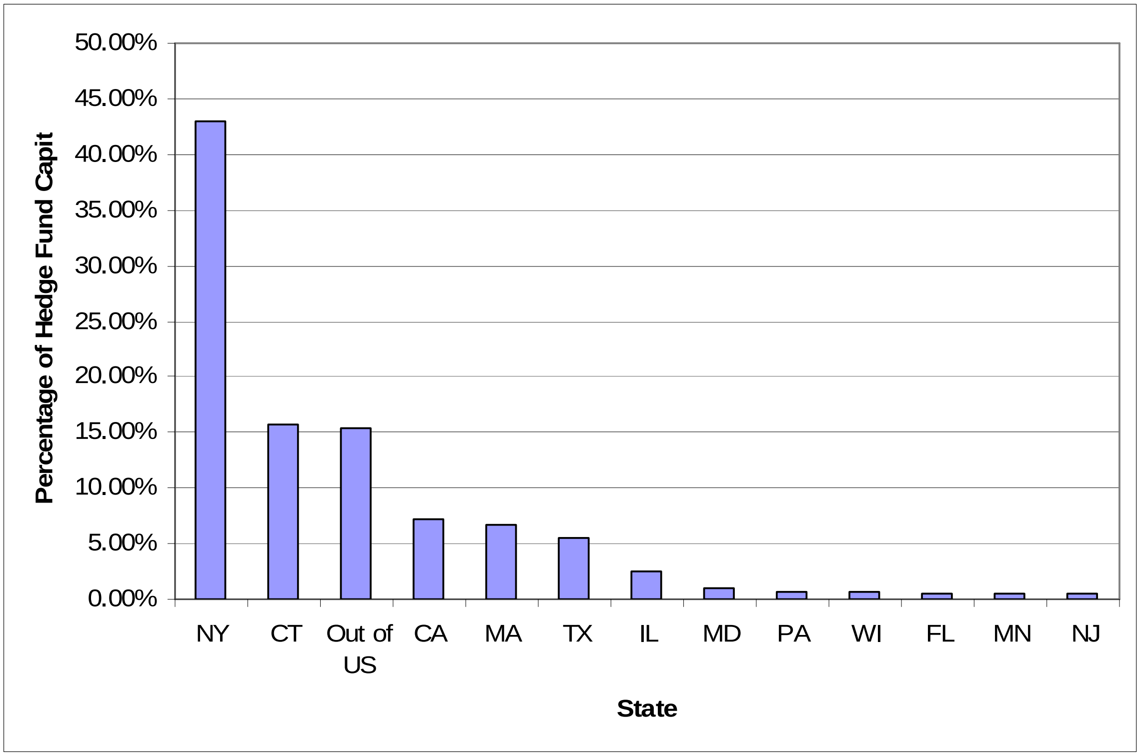
Source: Hennessee Group

Exhibit 2: Investment by Asset Class of the 200 Largest Pension Plans



Adapted from *The Wall Street Journal* (February 8, 2006). Source: Pensions and Investments

Exhibit 3: Distribution of Hedge-fund Capital by State



Source: *Institutional Investor*.

Exhibit 4a: Sample of Private Funds Managed by Boston-Area Mutual Fund Firms

Firm	Fund	Asset (in millions)	Minimum Investment
Eaton Vance Corp.	Belvedere Capital Fund Co. LLC	$12,868	$1 million
Wellington Management Co.	Spindrift Investors (Bermuda) LP	$1,187	$3 million
Pioneer Investment Management	Momentum AllWeather Fund	$1,091	$250,000
GMO LLC	GMO Multi-Strategy Fund (offshore)	$990	$1 million
State Street Research and Management Co.	Energy and Natural Resources Hedge Fund	$418	$1 million
Evergreen Investments	Hedged Equities, Super Accredited LP	$260	$250,000
Putnam Investments	Putnam International Equity Fund LLC	$199	NA

Exhibit 4b. 10 Largest Private Fund Managers in Massachusetts

Name	Private Fund Assets ($ millions)
Columbia Management ADV. (Bank of America)	28,356.70
Boston Management and Res. (Eaton Vance)	26,379.10
Wellington Management Co.	10,041.90
Adage Capital Management	7,650.00
Grantham Mayo van Otterloo & Co.	6,703.60
Renewable Resources	6,703.20
GMO Australasia	6,422.30
Pioneer Investment Management	5,539.60
Baring Asset Management	5,282.00
Baupost Group	5,152.30

Adapted from the *Boston Business Journal* and the *Boston Globe* (Source: SEC)

Exhibit 5
Hedge Fund Domicile
Source: Alternative Asset Center

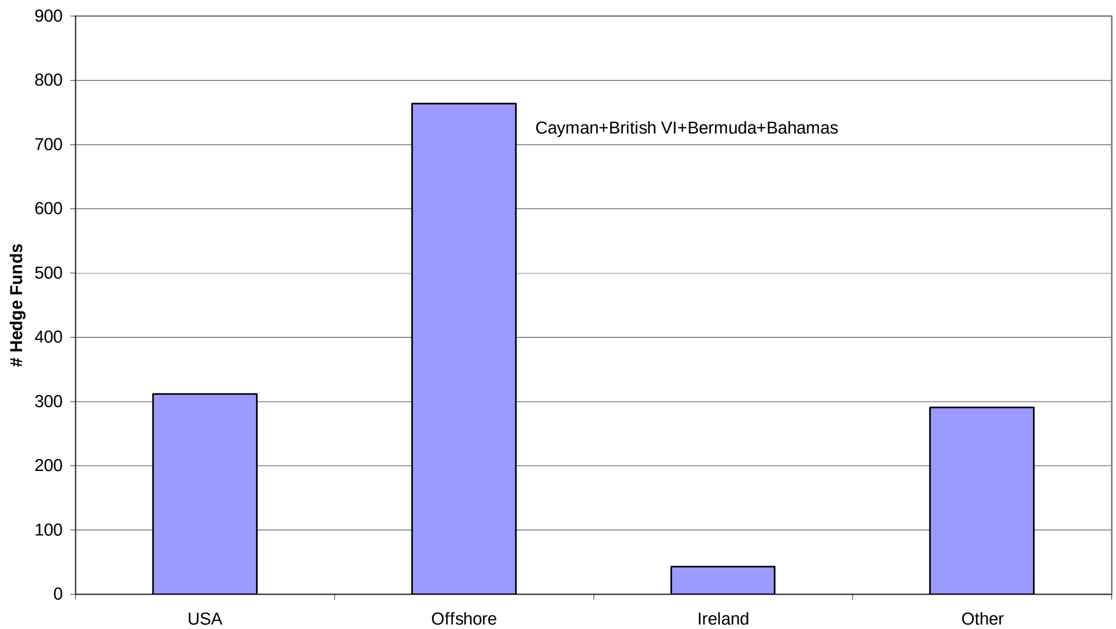


Exhibit 6
Hedge Funds by Selected Domicile
Source: Alternative Asset Center

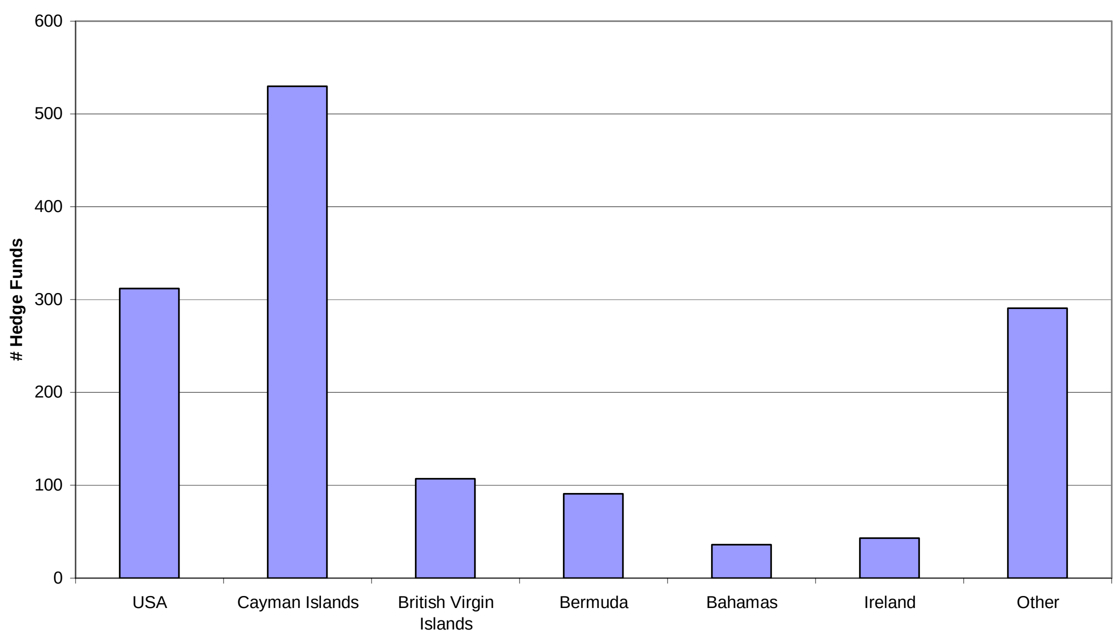


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Exhibit 7
US Hedge Fund Domicile by States
Source: Alternative Asset Center

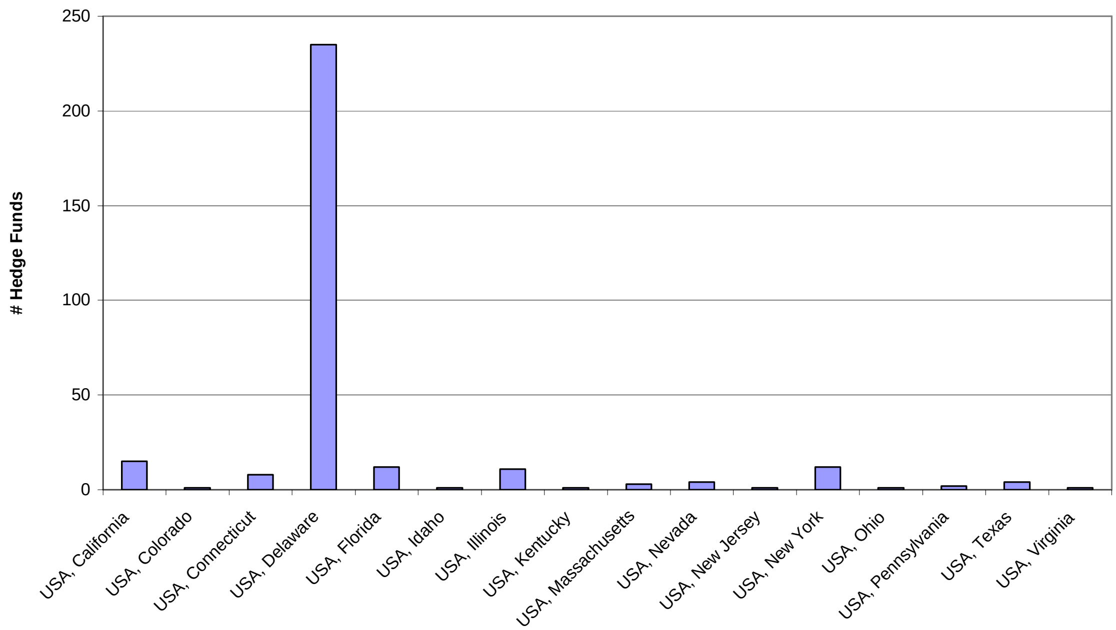

Exhibit 8
Hedge Fund Managers: US Domiciled vs. Non-US Domiciled
Source: Alternative Asset Center

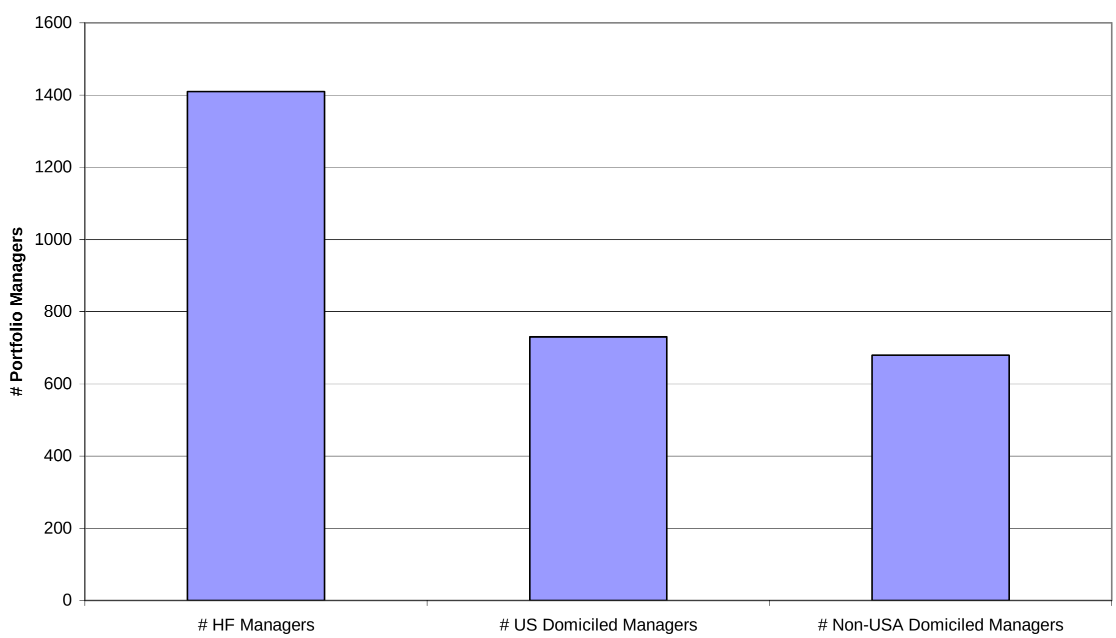

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Exhibit 9
US Hedge Fund Managers by States
Source: Alternative Asset Center

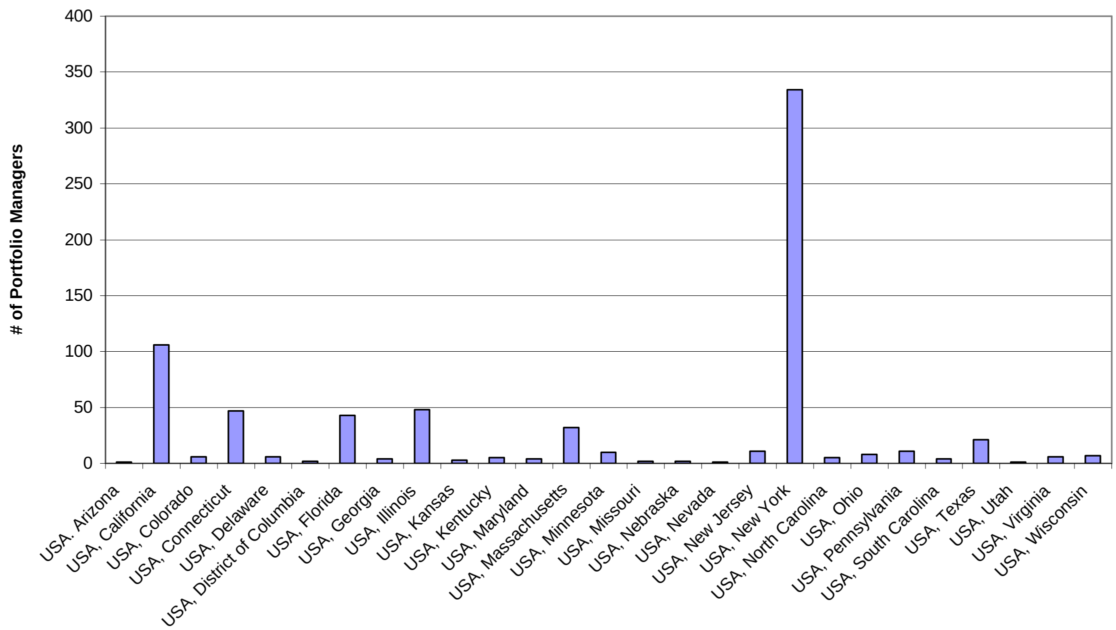

Exhibit 10
Domicile of US Hedge Fund Managers: Top 10 States
Source: Alternative Asset Center

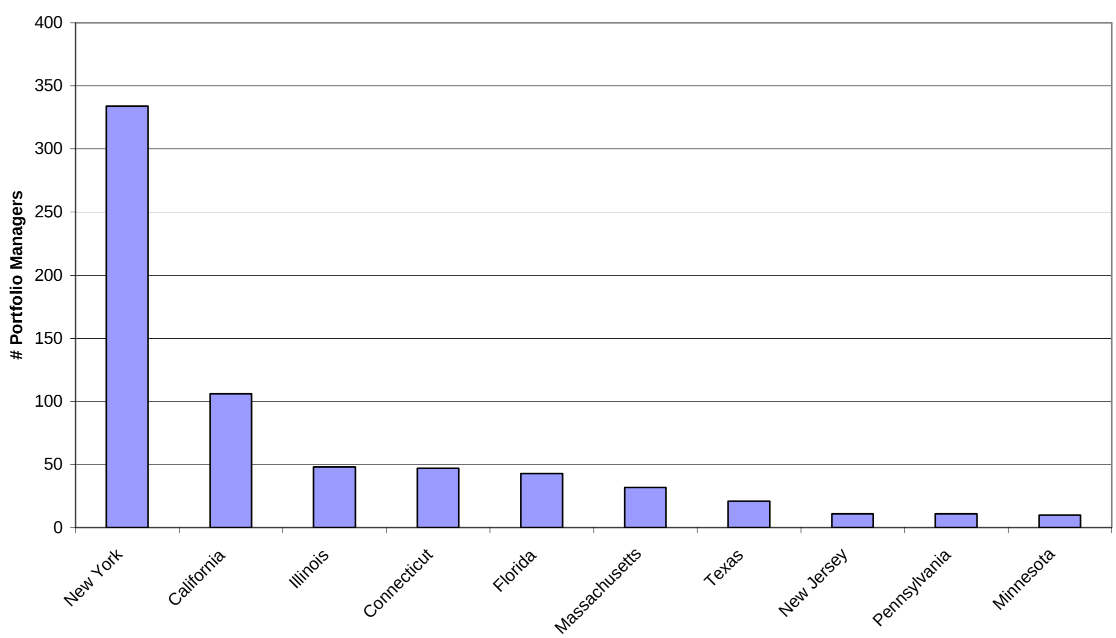

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Exhibit 11
Hedge Funds vs. Traditional Benchmarks
1994-2005

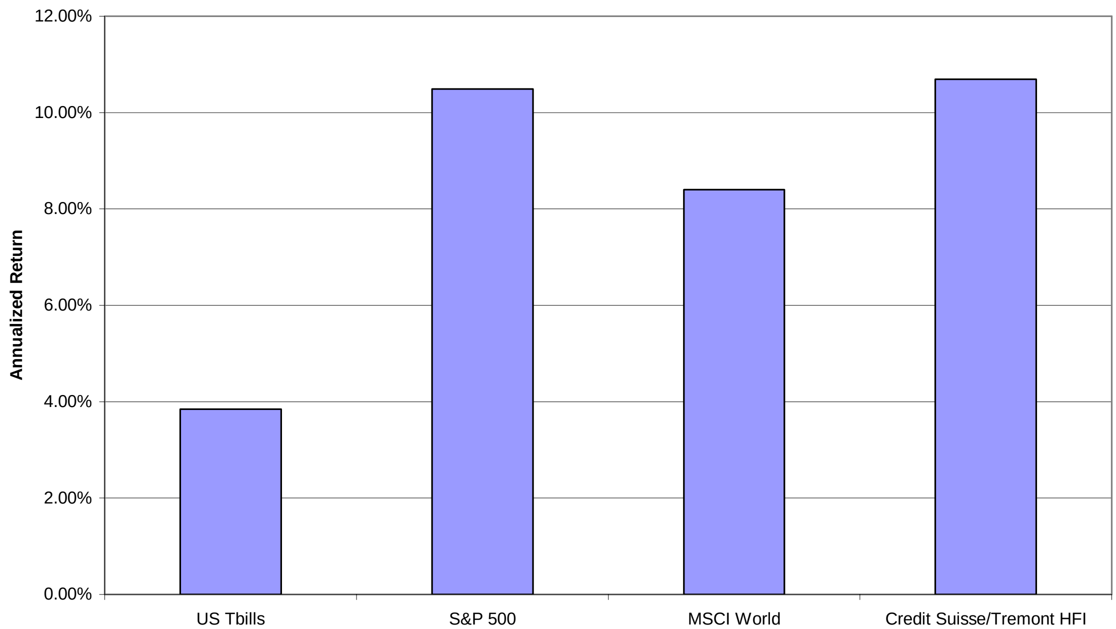

Exhibit 12
Capital Market Line (CML)
Credit Suisse/Tremont Hedge Fund Index vs. Market

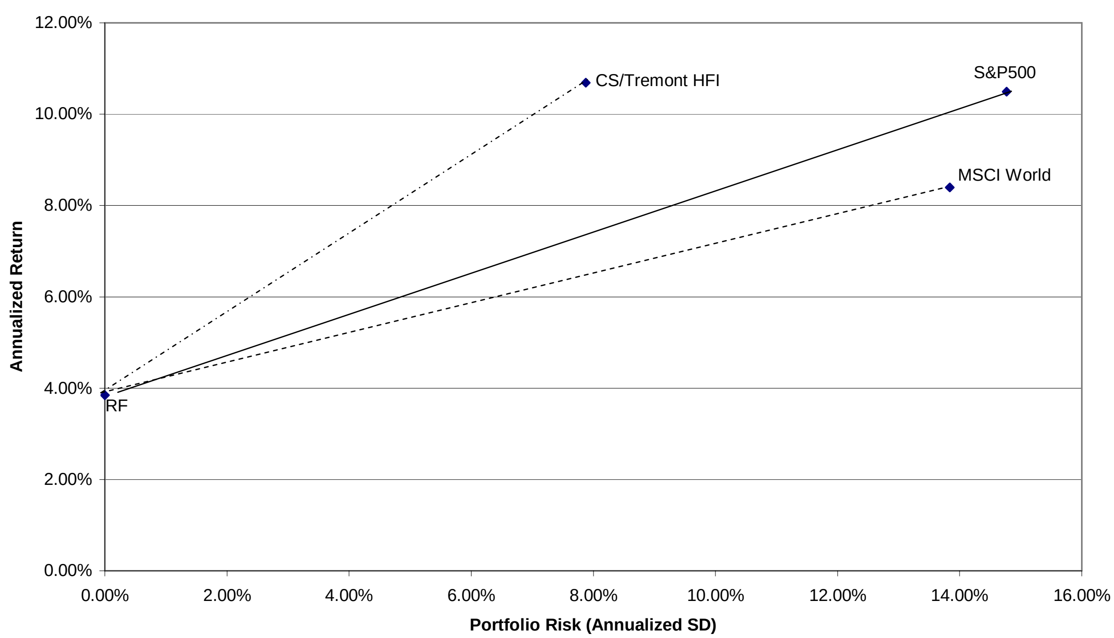

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Exhibit 13
Performance of Hedge Fund Strategies: 1994-2005

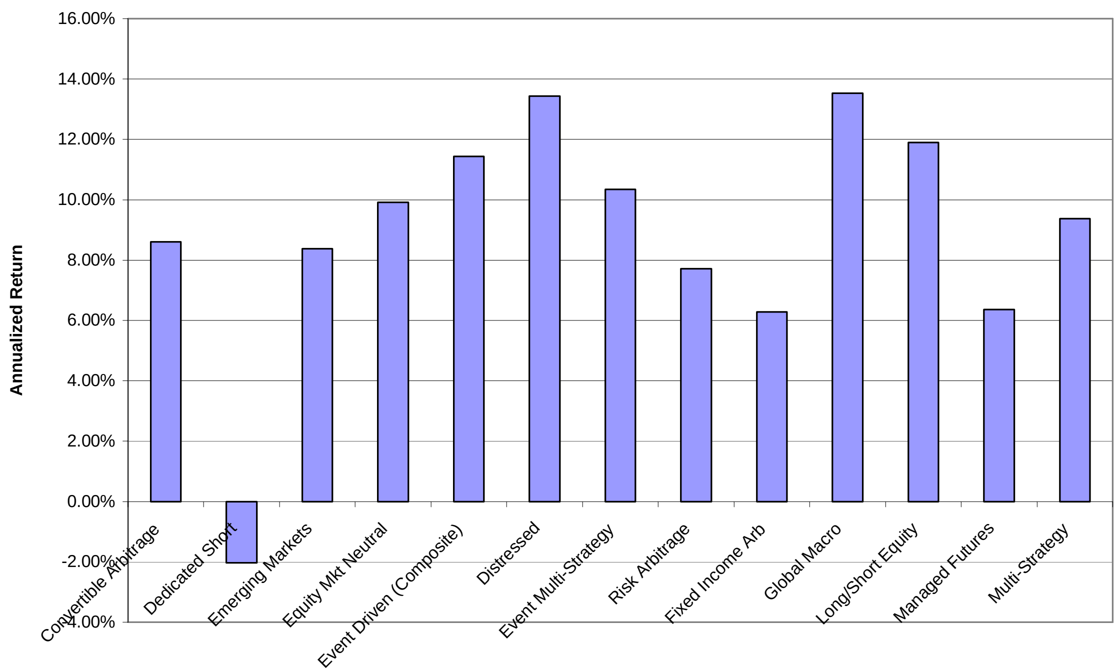
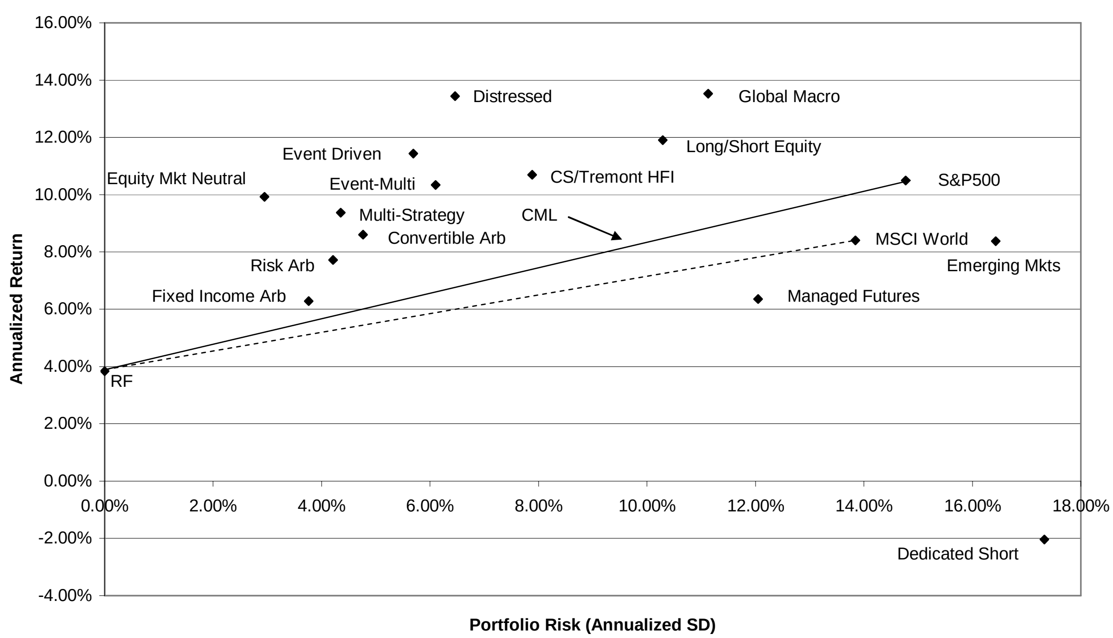


Exhibit 14
Hedge Fund MPT Analysis
(Performance vs. Risk)



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[i] An April 21, 2006 *Boston Globe* article suggests that according to more recent SEC data Massachusetts financial firms help manage about 10 percent of the estimated $1.5 trillion held in private funds throughout the country.

[ii] "Accredited investors" have a net worth of at least $1 million and either an income of at least $200,000 individually in each of the past two years, or a joint spousal income of in excess of $300,000 in each of the past two years.