

Alternative Investments for Fiduciaries

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The term *Alternative* encompasses a broad range of asset classes outside of publicly traded equity and debt securities. The main categories consist of hedge funds, real estate and private equity. While hedge funds primarily invest in publicly traded securities, they employ trading strategies to exploit perceived inefficiencies in the capital markets. Real estate and private equity represent direct investments into operating businesses outside of the universe of publicly traded securities.

Fiduciaries should take the meaning of the term alternative literally and they should not feel obligated to make any investments in this area, especially if they are not comfortable with the investment opportunities available to the organization. The reason many institutions do invest in alternatives is that these assets have historically provided returns comparable to stock market investments with a low correlation to the publicly traded equity and fixed income markets. As the distribution requirements and the long term nature of most nonprofit portfolios necessitate the inclusion of volatile asset classes whose long term performance is inherently unpredictable, diversification provides the only source of risk reduction for the fiduciary. The addition of these investments to a diversified portfolio of stocks and bonds can lower the overall volatility of the portfolio without sacrificing return potential.

A common characteristic of alternative investments is the lack of a passive, investable benchmark, such as the S&P 500 or Lehman Aggregate. While many indices exist within the industry, they typically measure the average performance of a pool of similar managers, not the complete opportunity set of the asset class. Hedge fund indices, for example, typically consist of a set of as few as eight to ten individual funds selected by the index provider as representative of the asset class. Considerable dispersion exists among indices from different data providers, further reducing their usefulness to fiduciaries.

Alternative investments are typically made through partnerships or limited liability companies that are not registered with the SEC. The Investment Company Act of 1940 provides two exemptions to registration and SEC oversight:

- 3(c)(1) Funds can accept up to 100 “accredited investors”
- 3(c)(7) Removes the 100 investor restriction, provided investors are “qualified purchasers”

For nonprofit institutions, the 3(c)(1) “accredited investor” minimum investment asset level is \$5 million and \$25 million for the 3(c)(7) “qualified purchaser” requirement.

Fiduciaries should ensure that any investments in these areas are made through limited liability vehicles, such as limited partnership interests, which are independently audited by a reputable outside firm.



Real Estate

Questions to Answer

1. What are the unique characteristics of Real Estate as an asset class?
2. What are the important subclasses in Real Estate?
3. What is the impact of leverage on nonprofit portfolios?
4. How has real estate performed historically?
5. How should real estate investments be structured?

Real estate represents the oldest form of investable wealth. For centuries before the development of capital markets, an individual's wealth was measured by his land holdings. Modern institutional real estate investments combine the commodity features of raw land with the operating business aspects of leasing and maintaining buildings. A 2003 study calculated approximately \$1.5 trillion of investable real estate exists in the United States, the total market capitalization of the S&P 500 at that time of \$9 trillion. Investments can either be made directly into properties or through an investment vehicle, such as a limited partnership or Real Estate Investment Trust (REIT). A large number of exchange-traded REIT's went public in the 1990's, offering fiduciaries a liquid vehicle for real estate investment. Outside of public REIT's, investors must contend with the illiquidity of direct real estate holdings.

Real estate combines features of bond and stock investing. The cash flows from a lease comprise the "bond" component, while the residual land and building value provide the equity component and inflation hedge. A risk / reward spectrum exists among property types. Hotels are the most equity-like, with their lease terms measured in days and substantial operating expertise required to compete in the industry. Aside from directly owning mortgages, Long term commercial leases are typically structured with periodic rent increases in line with expected inflation. Triple-net leases, where the tenant is responsible for maintenance and upkeep, with single high credit quality tenants provide the most bond-like performance. In between these areas are multi-tenant office, apartments and retail.

While participants remain exposed to economic fundamentals, in general, the earnings of real estate investments are much less volatile than corporate earnings. Higher quality tenants and longer lease durations provide an ability to sustain an economic downturn. Quality properties obtained at reasonable valuations provide a robust store of value while more speculative investments can lead to a permanent impairment of capital. Speculative bubbles and overbuilding have led to periods of significant price volatility, notably during the late 1980's and early 1990's. Like stocks, real estate investing requires a long time horizon.

Reasonable diversification among regions and property types provides risk control for the portfolio. The main property types consist of office, industrial, retail and multifamily. Smaller sectors include self storage, parking, health care and manufactured housing. Specialty properties, such as health care, are riskier due to the limited market for tenants.



Hotels and resorts are more like operating businesses, lacking the reliable income characteristics that distinguish real estate as an asset class apart from equities.

Some institutions also invest in timber and farmland. These asset classes, while subject to the volatility of commodity prices, have historically provided solid returns. According to NCREIF, historical real returns on timber have averaged around 8% while farmland has provided a slightly lower 6%. The correlations of these assets to stocks and bonds, as well as commercial real estate are very low. Several institutional management firms exist, offering professional management through separate accounts and commingled vehicles.

Leverage comprises an important component of real estate performance. The steady cash flows generated by leased properties generally will support a mortgage and the corresponding higher returns to equity holders. Ratios of debt to total asset values of 50% to 75% are not uncommon. The unleveraged yield (net income / asset value) is commonly referred to as the cap rate. The cash on cash return describes the cash flow yield from the property, net of interest payments to the equity holder. Obviously, an investor must earn a positive spread between the cap rate and the interest rate on the mortgage for leverage to be feasible.

The table below illustrates the performance of the two main real estate indices, NCREIF and NAREIT, compared to the stock and bond markets. The NCREIF (National Council of Real Estate Investment Fiduciaries) index represents a composite of privately held properties in the office, industrial, retail and apartment sectors. The performance consists of both income and capital appreciation, which is derived from independent appraisals applied consistently on all properties in the index. While the index contains both leveraged and unleveraged properties, all performance is reported on an unleveraged basis. The NAREIT (National Association of Real Estate Investment Trusts) index consists of publicly traded REIT's, weighted by market capitalization.

The lower standard deviation of the NCREIF index can be largely attributed to the smoothing effects of the appraisal methodology. NAREIT, which consists of marketable securities, exhibits much more volatility. The ratio of debt to total capitalization of the companies in the NAREIT index averages around 50%, which accounts for most of the return differential between the two indices, as well as part of the volatility increase.

Real Estate Performance March 1978 to September 2006

	Annualized Return	Standard Deviation	Sharpe Ratio
NCREIF Property	10.04%	3.64%	1.44
NAREIT-Equity	15.13%	15.63%	0.55
LB Aggregate Bond	8.60%	7.62%	0.60
S&P 500	13.08%	17.22%	0.44



Leverage presents tax problems for endowments and foundations, as the portion of the income attributable to the mortgage will be subject to Unrelated Business Taxable Income (UBTI). For example, for an office building with an 8% cap rate and a mortgage on 50% of the property with an interest rate of 6%, the cash on cash return is 10%. The 2% difference between the 8% cap rate and 10% cash on cash would be taxed at the applicable corporate tax rate.

Nonprofit investors can avoid unrelated business income with proper deal structure. The income from a Real Estate Investment Trust (REIT), either private or publicly traded, is generally immune from UBTI. A limited partnership or LLC will generally pass through the UBTI to the investor.

A limited liability structure is essential for prudent real estate investment. Potential losses should be limited to the amount of equity invested as the equity value of a mortgaged property can sometimes fall below the value of the mortgage or the owner of the property might be subject to litigation from an accident or other incident on the property. For example, a developer known to us was forced into bankruptcy by remediation costs caused by a dry cleaner tenant in a strip center that improperly disposed of waste chemicals into a storm sewer.

Fiduciaries should look for professional management in real estate. As a general rule, boards should not engage in selection and management of investment properties any more than they should pick individual stocks. An exception would be properties that are part of the organization's mission. For example, a hospital endowment might own a medical office building located next to the hospital facility. In this case, the institution would be able to judge the tenant quality and have some expertise in leasing and management. In any direct ownership situation, legal council is essential to limit potential liability.

Real estate investment vehicles include both publicly traded REIT's and direct investment. Depending on account sizes, public REIT management is available in both separate accounts and commingled vehicles such as mutual funds. Portfolio management is structured similar to equity and fixed income investments, with firms charging a fixed percentage of assets and owning a diversified portfolio of securities. Active managers attempt to add value by security selection and over or underweighting the various sectors and regions of the real estate market. For example, a manager might overweight apartment REIT's with exposure to regions with a tight housing supply.

Similar to other investment managers, real estate management firms offer commingled funds and separate accounts. Investment minimums for separate accounts are typically \$100 million or more, restricting this option to the largest institutions. The advantages of separate accounts lie in a negotiated fee structure and the ability of the investor to control the timing of sales. Commingled vehicles, LP's or private REIT's, offer minimums as low as \$1 million. Similar to private equity, these investments close to new investors after an initial fund raising period and do not provide any liquidity during the lifetime of the fund, which is typically five to ten years.



Three broad categories of direct real estate investment funds exist in the marketplace: Core, Growth & Income, and Opportunity. Core funds typically restrict themselves to “A” rated properties with high quality tenants and focus on income generation. The Growth & Income strategy attempts to locate leased properties at opportunistic valuations. Often the manager attempts to find buildings that could be sold at higher prices with modest capital improvements. Opportunity funds lie at the far end of the risk / reward spectrum and are involved in more speculative activities such as development or buying raw land.

Investors should examine the offering documents and compensation structure for private real estate funds. Arrangements where compensation is based on assets under management provide incentives for managers to buy and hold properties in order to generate fee revenue rather than returns for investors. Private real estate management should possess a compensation structure that aligns the interests of management and investors. A typical arrangement might be 1% of committed equity plus 20% of the performance above a hurdle rate appropriate for the fund’s risk characteristics (typically 8-11%). Conflicts of interest need to be closely examined. Often real estate investment management firms have subsidiaries involved in brokerage, mortgage origination or property management.

Hedge Funds

Questions to Answer

1. What is a hedge fund and how has the industry grown and gained institutional acceptance?
2. What are the important issues for fiduciaries to address in hedge fund investing?
3. What are the main hedge fund strategies?
4. How should a hedge fund investment be diversified to avoid manager blowups and to take advantage of the low correlation of various strategies?
5. How should a fiduciary deal with the lack of transparency in hedge funds?
6. What are the unique risks involved in hedge fund investing?
7. What has been the long-term performance of the hedge fund industry?
8. How should a hedge fund investment be benchmarked?

In October 2001, according the Wall Street Journal, the Art Institute of Chicago suffered in excess of a 90% loss on a single \$43 million hedge fund investment with a Dallas based manager. The institute was an experienced hedge fund investor, having allocated 59 percent of its \$667 million investment portfolio in hedge funds. The manager apparently had created a complicated stock option strategy which created a position that made money unless the market fell by more than a certain amount, in which case the fund would implode. Because such losses in the market are infrequent, the past performance of the fund showed strong gains with very low volatility. However, the Institute reported five year annualized returns over 11%, including this loss. While this is an extreme case, it illustrates some of the pitfalls and benefits associated with hedge fund investing.



Over the past few years hedge funds have gained institutional acceptance. Once dominated by high net worth investors, large institutions are now beginning to impact the hedge fund industry. During the 1990's hedge funds provided performance comparable to the S&P 500 with less than half the volatility of the index. As the chart below demonstrates, hedge fund assets grew dramatically over this ten year period. This growth presents a challenge to the industry as the performance of many hedge fund strategies is linked to taking advantage of pricing discrepancies in the market that will potentially disappear if too much money enters the industry.



Source: Greenwich Alternative Investments

Hedge funds are perhaps the most difficult asset class to understand and integrate into a sound investment policy. Unlike other asset classes, hedge funds, in their purest form, do not represent any underlying, wealth-creating economic activity. Rather, they rely purely on exploiting any perceived mispricing in the securities markets. The term “hedge fund” now carries about the same informational content as the term “mutual fund”. The only common characteristics of hedge funds is that they are private investment partnerships and the manager is compensated both a percentage of assets which is typically 2%, and a percentage of the performance which is usually 20% of new, positive performance (managers do not get performance based compensation for recouping losses). A wide and often baffling array of strategies are employed by hedge fund managers. While many hedge funds employ aggressive trading strategies and high degrees of leverage, others are very conservative in their risk and return targets.

With the exception of what are termed directional strategies (distressed debt, emerging markets, and dedicated short sellers) the main hedge fund strategies all involve a combination of long and short positions. A short sale involves selling a borrowed security in anticipation of a future price decline. The short seller must repurchase the security at some point, realizing a gain (loss) if the price is lower (higher). Losses from a short sale are theoretically unlimited as the price of a security can appreciate over 100%.



The important issues in hedge fund investing for fiduciaries involve manager and strategy diversification, transparency, risk control, the reliability of past performance, and benchmarking.

Hedge fund investing is commonly divided into seven strategy groups:

1. Long / Short Equity
2. Convertible Arbitrage
3. Event Driven
4. Merger Arbitrage
5. Distressed Securities
6. Fixed Income Arbitrage
7. Macro

While some practitioners recognize other categories, such as managed futures or sector funds, these strategies comprise the core of any institutional hedge fund program. Many variants of the different strategies exist in the industry. While most hedge funds concentrate in a single strategy, many will opportunistically employ multiple strategies.

Long /Short Equity, the most common hedge fund strategy, and the one which gave rise to the term, is to hold a portfolio of equity securities with both long and short positions. A short sale involves selling borrowed securities in anticipation that the price will fall, allowing the manager to buy them back (cover the short) at a lower price than what they were sold. The theory is that while a long / short equity portfolio will likely underperform a strong bull market, the short positions provide an opportunity to profit regardless of the direction of the broad market.

Convertible Arbitrage involves buying a convertible bond and shorting the stock of the issuer. Convertible bonds are corporate issues that will convert into a fixed number of shares of the company's stock at a specific price. As a convertible bond possesses an imbedded call option on the issuer's stock, the manager has hedged the stock's price risk by adding the short position. Returns come primarily from interest payments on the bond plus interest earned on the proceeds from the short sale. Managers typically employ leverage to get returns into the low teens. This strategy tends to perform well in declining equity markets as the bond features of the convertible lend price support while gains are made on the short equity position.

In Merger Arbitrage, the manager attempts to capture the price spread between two companies involved in a stock for stock merger. The acquired company will be bought while the stock of the acquirer will be sold short. If the merger is completed, the price differential will become profit. The potential losses on a failed merger are much larger than the spread on a completed transaction, so managers tend to diversify their positions. As there are a finite number of mergers in any given year, the spreads are sensitive to the aggregate investment dollars in the strategy.

Fixed Income Arbitrage deals with identifying pricing discrepancies in the bond market and betting on the direction of yield spreads between different fixed income instruments.



For example, by buying a basket of corporate bonds and shorting a treasury with an equivalent duration, a manager could bet that the spread between corporate and government yields will narrow while remaining unaffected by the overall direction of interest rates. This strategy tends to employ the highest degree of leverage as the spreads are often quite small.

Hedge fund managers also invest in distressed securities. Because institutions are often prohibited from holding bonds that are in default, mispricing may exist in these securities. As the bond represents the claim on a company's assets, the manager will analyze a recovery value in a Chapter 11 restructuring. Securities that possess an attractive risk / reward profile based upon this analysis will be purchased. This strategy has had the highest returns coming out of recessions, as recessions naturally lead to higher default rates, creating more investment opportunities and the ensuing economic recovery enables many troubled companies to improve their financial strength.

Event Driven strategies focus on profit opportunities created by corporate events such as spin-offs and restructurings. For example, when 3Com spun off Palm in 1999, the company retained a large amount of Palm stock on its balance sheet. Because of the craze for technology stocks at the time, the value of Palm's stock appreciated to the extent that the market value of the Palm stock on 3Com's balance sheet was worth more than the entire market capitalization of 3Com at the time. Shorting Palm and buying 3Com locked in this valuation disparity without any individual stock price risk. Whether the value of 3Com appreciated or Palm fell to eliminate this disparity, the trade would be profitable.

Macro investing encompasses many of the strategies most commonly associated with hedge fund investing such as high degrees of leverage and currency trading. Managers look to profit from global macroeconomic trends and invest in a variety of instruments including stocks, bonds, currencies and futures to express their views. This strategy has the highest risk / reward profile.

Hedge fund strategies and managers are generally uncorrelated to one another, so there are substantial diversification benefits to investing in multiple funds. 10-15 funds, diversified by strategy, is a reasonable target for most portfolios. However diversification is often difficult to achieve for small and medium size plans as total hedge fund allocations typically are in the 10-15% range and the investment minimums of individual hedge funds are typically \$500,000 or more. Owning multiple hedge funds also presents accounting difficulties as each fund issues an annual K-1, which must be incorporated into the fiduciary's financial reporting.

A Fund of Funds, a single fund that invests in multiple hedge funds is often the best option for investors. For a fee, typically 1% plus 5-10% of the performance, the fund of funds manager provides manager selection, due diligence and consolidated reporting. Investment minimums can be as low as \$250,000.



Performance of these strategies is detailed in the table below:

Manager Performance Analysis							
January 1996 - December 2006: Annualized Summary Statistics							
	Return	Standard Deviation	Sharpe Ratio	Maximum Drawdown	Alpha vs. Market	Beta vs. Market	Correlation vs. Market
HFRI Fund of Funds Index	8.45%	5.92%	0.78	-13.08%	6.27%	0.21	0.54
HFRI Fund Weighted Composite Index	11.52%	7.23%	1.07	-11.42%	7.89%	0.35	0.72
HFRI Convertible Arbitrage Index	9.67%	3.39%	1.72	-7.34%	9.08%	0.06	0.26
HFRI Distressed Securities Index	12.64%	5.43%	1.62	-12.78%	10.94%	0.16	0.45
HFRI Equity Hedge Index	13.96%	9.15%	1.11	-10.29%	9.58%	0.42	0.69
HFRI Event-Driven Index	13.19%	6.50%	1.44	-10.78%	10.11%	0.29	0.67
HFRI Merger Arbitrage Index	9.66%	3.78%	1.54	-6.32%	8.32%	0.13	0.50
HFRI Statistical Arbitrage Index	7.27%	3.91%	0.88	-5.41%	5.74%	0.15	0.56
HFRI Macro Index	9.78%	6.75%	0.88	-7.32%	8.14%	0.17	0.37
S&P 500	9.67%	15.00%	0.39	-44.73%	0.00%	1.00	1.00

Source: Zephyr Associates, HFR

The HFRI Fund of Funds Index represents the performance of participating multi-manager hedge funds and perhaps best represents the benefits of a diversified hedge fund program. Over the 1996-2006 period all of these strategies demonstrated an attractive risk / return profile relative the S&P 500. The question remains whether or not this performance can be sustained in the face of increased capital and if biases exist in the data that cause the risk / reward data to be overstated.

Hedge fund transparency is a major issue for fiduciaries. Unlike mutual funds or separately managed accounts, the manager is not required to disclose portfolio positions. Hedge fund managers, with some justification, view their trades as intellectual property and wary of others copying their strategies. However, this poses an invitation for fraud which has been well documented in the press. An Investor's main protection against fraud is the annual audit. All reputable funds employ an independent auditor. Background and reference checking comprise another essential component of the due diligence process. Traditional money managers are required to register with the SEC and file an annual Form ADV which details any criminal or securities violations by the firm or its principals. Hedge fund investors do not have this protection. Most fund of funds managers perform background checks on prospective managers, a process that can be very expensive and time consuming for smaller investors.



Risk control poses a challenge for hedge fund investors. The lack of transparency combined with often asymmetrical return distributions and use of leverage explains the frequent “blow-up” stories in the media. The use of leverage, short selling and / or derivatives allows a hedge fund manager to create a product with a return distribution similar to selling hurricane insurance. In other words, creating a fund with low volatility and consistent performance that will implode under the right set of circumstances. The profits that a hedge fund manager can earn in this type of product if he can last for a few years are substantial. For example, a hedge fund manager beginning with \$250 million, charging 2% and 20% and delivering an annual 15% return, gross of fees will have generated cumulative revenues over five years of nearly \$80 million, assuming no inflows or outflows of capital. The economics of most hedge funds is that the 2% management fee covers salaries and overhead, while the performance fee comprises the bulk of the firm’s profit. Under this calculation, the hypothetical manager would have accumulated a fortune of over \$40 million over this period.

Evaluating the performance history of individual hedge funds and the industry as a whole presents several unique problems. The first is survivor bias, which simply means that investors never see the performance of funds that suffered large losses and went out of business. This phenomenon gives an upward bias to the performance of hedge fund indices comprised of existing hedge funds. Index providers have taken steps in recent years to reduce this bias, but its elimination is not possible. A downward bias stemming from successful funds who close to investors and stop reporting to databases also exists. Many of the best performing funds have never reported to databases. However these funds are generally closed to new investors and their performance is reflected to some extent within the universe of fund of funds.

Selection or backfill bias is also endemic to the industry. It is important to remember that the purpose of hedge fund databases is for managers to market their funds. A significant time period of performance is usually necessary to attract investors so managers typically will incubate a fund with a small amount of personal capital for a few years and then report the performance to the database only if the fund is successful. This creates a selection bias where superior past performance is backfilled into the databases. In reality this performance would have only been available to seed investors willing to invest capital with an unproven manager with no track record to rely upon.

Optionality or non-linear return patterns is a more complex concept, perhaps best described by the previous analogy of selling hurricane insurance. Some investment strategies provide very smooth and consistent investment performance that gives very little indication of the substantial risks that are being taken. Numerous studies have demonstrated that hedge fund returns do not follow normal distribution patterns (the classic bell curve). This means that the standard deviation of monthly returns does not capture the totality of risk inherent in hedge fund investing.

Benchmarking hedge fund investments present several challenges to fiduciaries. While the industry promises consistent absolute performance, in reality managers and strategies



fall in and out of favor just like in traditional money management. Three benchmarking options exist for diversified hedge fund programs.

1. Opportunity cost benchmark
2. Fund of funds index
3. Custom multistrategy index

The simplest alternative is to use an opportunity cost benchmark, comparing hedge fund performance to broad stock and bond indices. Hedge fund performance is then judged upon whether it has provided a more attractive risk / return profile than traditional asset classes. A fund of funds index provides a comparison with other diversified, multistrategy programs. Presumably individual fund of funds have invested with managers who performed poorly and closed, which removes the survivor bias inherent in individual hedge fund indices. Constructing custom multistrategy index entails combining individual hedge fund strategy indices in an allocation that corresponds to the portfolio's hedge fund investments. Problems with this method include the survivor bias in the indices and the degree to which the index fairly represents the management style of the funds in the portfolio.

The relative immaturity of the hedge fund industry presents several challenges to fiduciaries. By their nature, hedge funds thrive by identifying and exploiting market inefficiencies. These inefficiencies exist because exploiting them requires the use of short selling, leverage or derivatives, techniques that were historically prohibited in institutional portfolios. The hedge fund industry began with a relatively small pool of capital provided by high net worth individual investors. How the industry will be changed by the participation of large institutional pools of capital remains to be seen. Basic economics suggests that the excess risk-adjusted returns enjoyed by the industry will fade as these strategies become more popular.

Private Equity

Questions to Answer

1. What is private equity and how does it differ from publicly traded equity securities?
2. Does private equity really have a low correlation to the stock market?
3. How cyclical is private equity?
4. What are the main subclasses of private equity?
5. How are private equity investments structured?

The term Private Equity describes equity or debt investments made through private transactions in securities without a public market. Venture capital is perhaps the most familiar example of private equity, although other less volatile sectors exist. Investments are generally carried at cost, unless written down for poor performance or if an outside party has made a subsequent investment. Generally, no liquidity exists for investors. Participants must wait for an exit transaction such as a third party buyout or initial public offering to realize gains. As with other alternative asset classes, no passive investment vehicle exists.



Due to the combination of entrepreneurial investment, the assumption of illiquidity and the ability to gain access to a larger set of information than that possessed by public equity managers, Private equity offers the highest risk / return profile of any institutional asset class. The Yale Endowment, for example, has earned annualized returns of over 30% on its venture capital investments.

Actual returns on the universe as a whole are much less attractive. Two studies published in 2005 by Kaplan and Schoar and Phalippou and Zollo show that the average private equity fund, net of fees, underperformed the S&P 500. The methodology they used was to compare the fund IRR's and multiples of capital returned to what the results would have been if those cash flows had been invested in the S&P 500. As private equity funds are illiquid, they selected 1980-1996 vintage years (i.e. funds that were ten years or older) and chose funds that had either liquidated all their investments or had no cash flow activity for the last two calendar years of the sample. This sample represented a substantial portion of the \$87 billion in total capital raised over that period. There is over \$1 trillion under management by private equity firms today, with \$170 billion raised in 2005 alone.

Many in the investment industry describe private equity as a diversifying asset class, with a low correlation to stock market investments. This perceived low correlation only stems from the fact that investments are not regularly marked to market. The same set of macroeconomic risk factors such as economic growth, interest rates and inflation that affect investments in publicly traded stocks also directly impact private investments.

The time horizon of private equity investments ranges between three to as many as ten years, during which time no liquidity exists for the investor. Funds typically take two or three years to fully invest after the fundraising period ends with the final close. The performance of a fund depends to a great extent on the market conditions during the investment period. Funds raised and invested at the peak of a market cycle invariably exhibit weaker performance than those invested during weak economic periods, where the managers were able to obtain better deal terms and valuations. Venture funds attracted record amounts of capital in the late 1990's with the result that hundreds of companies were funded in a very narrow group of Internet-related industries with excessive valuations and poor deal terms. Conversely, during the recession of 1990-1991, less capital was in play and only the strongest business plans received funding. Because of this, fiduciaries should diversify the timing of their private equity investments, making sure that investments are not concentrated on a single point in the economic cycle.

Venture Capital and Buyouts constitute the main sectors in Private Equity. Other areas include Growth Capital, Distressed and Mezzanine Financing. Managers apply these disciplines internationally, although the private capital markets outside the United States are relatively immature. Most institutional investment programs attempt some balance between the different private equity styles. Investors also employ multiple managers to reduce the risk of poor management decisions. Single company or deal risk will be completely diversified away by a multi-manager / strategy program.



Venture Capital offers the highest return potential as the success of venture-funded technology companies in the 1990's such as Sun Microsystems illustrates. Venture can be split between early and late stage investments. Early stage investing best fits the common perception, with investors providing capital to an entrepreneur with an attractive product idea and business plan. Late stage investing attempts to fill the gap between the early stage investments and the subsequent initial public offering (IPO). Late stage investing can degenerate into little more than an attempt to arbitrage the difference in private and public equity prices. Venture capital became a victim of its own success in the 1990's as astronomical returns attracted record amounts of capital which were used to fund mostly short-lived dot.com business.

Buyout transactions involve private acquisitions of mature business, either publicly traded or private. During the 1980's highly leveraged hostile deals were typical and generated considerable attention from the media. Leveraged buyouts were profitable in the 1980's largely due to depressed stock prices for many companies with solid business assets but who paid little attention to delivering returns to shareholders. In many cases these transaction added value simply by replacing the existing management team. Since then, buyout managers have focused more on adding value through management expertise or consolidation strategies.

Mezzanine financing provides capital between common equity and senior debt. Issues are structured either as preferred stock or subordinated debt, most often with a conversion feature. Companies pursue mezzanine financing typically because they either cannot obtain other forms of debt or the presence of a subordinated layer of debt allows the firm to get cheaper primary debt capital. While mezzanine is often perceived as the most conservative private equity strategy, it shares the same disadvantages as other forms of debt investing: an asymmetric payout with potential for losses (from a potential default) that exceed potential gains.

While distressed investing is discussed in the hedge fund section, this strategy also has a private equity component. Compared to distressed hedge funds, private equity investments are much more control oriented. For example, a distressed hedge fund manager might buy part of a defaulted bond issue, expecting a recovery in excess of its current market price. A distressed private equity manager might attempt to take control of a struggling company, replacing its management.

Private equity investment occurs through limited partnerships. Management firms will raise a new fund every couple of years. To a much greater degree than in the public equity markets, private equity firms have been able to create long term franchises that outlast the founding members. Kleiner, Perkins, Caufield & Byers, perhaps the best known venture capital firm, has been a leader in the industry since 1972 and consistently one of the top performers. The reason for the long term success of many top tier firms is that they attract the best entrepreneurs due to a demonstrated ability to help portfolio companies grow into mature businesses. While any traditional equity manager can invest in Microsoft, individual private equity investment opportunities are limited to a few



firms. For this reason, successful private equity firms possess a barrier to entry similar to that of the large investment banks in underwriting securities. Just as a company will pay a premium to employ Goldman Sachs or Morgan Stanley to underwrite its IPO, firms will naturally gravitate to the best known and most experienced private equity firms.

Performance records underscore the importance of investing only with quality firms. Whereas the difference in performance between the top and bottom quartiles of large cap equity managers may only be a couple of percentage points over the long run, the spread of returns among quartiles of private equity managers is usually measured in tens of percentage points. If access to quality management is not available, it is better to refrain from investing in this asset class.

Rank	Cumulative Net IRR for Venture Capital Funds	Cumulative Net IRR for Buyout and Mezzanine Funds
90th percentile	38.98%	29.17%
80th percentile	19.69%	19.48%
75th percentile	15.93%	15.82%
70th percentile	13.43%	13.66%
60th percentile	8.62%	10.73%
50th percentile	4.36%	7.60%
40th percentile	0.78%	4.60%
30th percentile	-1.81%	0.42%
25th percentile	-3.84%	-0.75%
20th percentile	-7.28%	-2.57%
10th percentile	-14.75%	-8.84%

Source: *Venture Economics*

Gaining access to top firms can be difficult, especially for smaller investors. Managers often have more demand from investors than investment opportunities. This leads firms to be selective about whom they accept as limited partners. Investment minimums tend to be high; \$5-10 million is a common range for most firms. Management fees include an annual fee of 1-2% plus a profit participation of 20-30% by the general partner.

As in the hedge fund area, smaller investors can gain access through a fund of funds vehicle with minimum investments as low as \$500,000. The additional fee layer is typically 1% plus a 0-5% profit participation by the general partner. Quality fund of funds managers have access to top tier firms and provide diversification across the different sectors of the private equity market.

