PEAK FINANCIAL MANAGEMENT, INC.

Registered Investment Advisor

The Benefits of Investing in Alternatives

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Abstract

In a time when the headlines are abuzz with the latest hedge fund failure and growing uncertainty in the financial markets, many investors are left wondering why anyone would ever invest in alternatives. The general public perception of alternative investments and the reality are very different.

The purpose of this paper is to provide qualified investors an accurate description of the investment options available in the alternative universe. The intention is to provide accurate descriptions of the three most common alternative investment vehicles: Hedge funds, private equity and managed futures. More importantly, the goal is to provide investors the necessary foundation to help make informed decisions in their future investment allocations.

This paper will address the basics of alternatives, outline the above-mentioned vehicles and the benefits of investing in them, define the underlying risks, and illustrate the importance of working with a professional to uncover the opportunities they present.

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Introduction

The term “alternative investment” is used in a casual manner to describe a wide array of investment strategies. Such casual use of the term has lead to investor confusion over the definition of alternative investment. According to the Chartered Alternative Investment Analyst (CAIA) Association, an alternative is most often defined not by what it is, but more often by what it is not. An investment is considered an alternative if it invests in something other than a long equity or debt position. Broadly defined, alternative investments encompass hedge funds, private equity, real estate and managed futures. [1] For our purposes we will focus specifically on hedge funds, private equity and managed futures.

In general, alternative investments are distinguished by the regulations that surround the positions that comprise the strategies and the method the gains and losses of these positions are taxed. In the case of both hedge funds and private equity investments, restrictions are placed on who is eligible to invest in the underlying vehicles. The most common term used for this restriction is “Qualified Purchaser.” The Securities and Exchange Commission defines a Qualified Purchaser as:

a) Individuals who own $5 million in investments, including: securities, financial contracts entered into for investment purposes, cash, cash equivalents held for investment purposes, real estate held for investment purposes, CDs, bankers acceptances and other similar bank instruments held for investment purposes. Investments *do not* include real estate held for personal purposes, jewelry, art, antiques, and other collectables. Debt used to acquire investments is also excluded.
b) Institutional investors who own $25 million in investments.
c) A family owned company that owns $5 million in investments
d) For trusts with less than $25 million the Qualified Purchaser is the trustee and each person who contributes assets to the trust.
e) A “Qualified Institutional Buyer,” QIB, under Rule 144A of the Securities Act of 1933, except that “dealers” under Rule 144 must meet the $25 million standard of the Investment Act of 1940, rather than the $10 million standard of Rule 144A, Rule 144A generally defines a “QIB” as institutions, including registered Investment Companies that own and invest on a discretionary basis $100 million of securities that are affiliated with the institution, bank that own and invest on a discretionary basis $100 million in QIB securities and an audited net worth of $25 million, as well as certain registered dealers.
f) A company owned beneficially only by Qualified Purchasers. However, a company will not be deemed a Qualified Purchaser if it was formed for the specific purposes of acquiring the securities offered by a 3 (c)(7) fund.[2]

The basis for this restriction is to ensure only investors who are fully educated about the complex strategies employed by these investments are allowed to invest in them. They are often referred to as “Fend for themselves” investors. This restriction, along with

[1] CAIA Association. Alternative Investment Definition. http://www.caia.org/ai/
[2] Harris Alternatives L.L.C. Qualified Purchasers. https://www.harrisalternatives.com/def/qp.asp

others, allows many of these alternatives exemption from registration under the Investment Company Act of 1940.

The often forgotten aspect of alternative investments is the diversification benefits they provide to investors. In general, alternatives offer low to negative correlation with traditional asset classes, as well as superior returns on a risk-adjusted basis. As with all investments, alternatives contain inherent risks on a stand-alone basis, but as part of a well-diversified portfolio their benefits should not be ignored.

Hedge Funds

History

Many people believe hedge funds are a relatively new commodity that rose during the height of the 1990's technology boom. While it is true that hedge fund assets have enjoyed tremendous growth over the past 15 years, hedge funds have actually had a lengthy tenure on the investment scene. Alfred W. Jones, PhD, Forbes magazine writer, launched the first hedge fund in 1949 after he raised $60,000 of new capital from outside investors, and invested $40,000 of his own money into his fund. The strategy was more straightforward compared to today's approach. Dr. Jones invested primarily in common stock and hedged his positions with short sales.[3] The original intent of hedge funds was to provide investors with an opportunity to further reduce the risk they were commonly exposed to in traditional asset classes. Today, the general purpose remains the same; hedge funds exist as an option for investors who are looking for superior absolute returns and lower risk versus traditional long-only investments.

Hedge funds are unregulated pools of money managed by an investment advisor who utilize a wide variety of investment tools not typically available in more traditional mutual funds. This flexibility allows the manager to use short positions, leverage through borrowing activities, and provide a variety of option strategies. Most hedge funds are not required to register under the Investment Company Act of 1940 that defines the responsibilities and limitations put on fund companies offering their products to the public. The SEC enforces this act and requires companies registered with the act to comply with standards addressing filing requirements, service charges, financial disclosures, and fiduciary duties. Hedge funds are exempt from this registration because they do not make public offerings of their funds.

The Investment Company Act also limited the number of investors who are allowed to invest in hedge funds. In previous years, hedge funds attempted to circumvent this rule by interpreting the vaguely defined term "client" in the act as each individual hedge fund they managed. In an effort to further protect investors, the SEC introduced the "hedge fund rule" in February 2005. This rule formalized the interpretation of "client" to mean shareholders, limited partners, members, or beneficiaries of funds. The new interpretation requires all funds with more than 15 clients to register under the Investment Company Act of 1940. In June 2006, the D.C. Circuit Court ruled against the SEC, ruling their

[3] "Hedge Funds: Past, Present, & Future". René M. Schultz. Journal of Economic Perspectives. Volume 21, Number 2, Spring 2007. Pages 175-194.

interpretation of client was incorrect, and concluded the term "client" applies to funds being managed and not the individual investors of the funds.[4] Under this interpretation only managers who offer more than 15 individual funds are required to register with the SEC.

Hedge funds are also exempt from registration under the Securities Act of 1933. Under this act any offer to sell securities must be registered with the SEC or meet an exemption. Regulation D, or "Reg D," contains three rules that provide smaller companies that offer and sell securities, with an exemption from registration with the SEC. Hedge funds enjoy this exemption due to the specific guidelines addressed in the "safe harbor" Rule 506 of Regulation D. According to the SEC website, "Companies using the Rule 506 exemption can raise an unlimited amount of money. A company can be assured it is within the Section 4(2) exemption by satisfying the following standards:

- The company cannot use general solicitation or advertising to market the securities;
- The company may sell its securities to an unlimited number of "accredited investors" and up to 35 other purchases. All non-accredited investors, either alone or with a purchaser representative, must be sophisticated—that is, they must have sufficient knowledge and experience in financial and business matters to make them capable of evaluating the merits and risks of the prospective investment;
- Companies must decide what information to give to accredited investors, so long as it does not violate the antifraud prohibitions of the federal securities laws. But companies must give non-accredited investors disclosure documents that are generally the same as those used in registered offerings. If a company provides information to accredited investors, it must make this information available to non-accredited investors as well;
- The company must be available to answer questions by prospective purchasers;
- Purchasers receive "restricted" securities, meaning that the securities cannot be sold for at least a year without registering them.

While companies using the Rule 506 exemption do not have to register their securities and usually do not have to file reports with the SEC, they must file what is known as a "Form D" after they first sell their securities. Form D is a brief notice that includes the names and addresses of the company's owners and stock promoters, but contains little other information about the company."[5]

The hedge fund industry has experienced tremendous growth since its inception in 1949; the industry currently reports assets under management in excess of $2.8 trillion as of March 31, 2008,[6] a significant increase from the less than $4 billion just a decade ago.

[4] "What is a hedge fund?" Isaac Ruiz-Carus, Varun Bhat, Emily Marriott. The University of Iowa Center for International Development and Finance. http://www.uiowa.edu/ifdebook/faq/Hedge.shtml
[5] United States Securities & Exchange Commission. Rule 506 of Regulation D. http://www.sec.gov/answers/rule506.htm
[6] HFN Q1 2008 Hedge Fund Asset Flows & Performance Report. www.hedgefund.net

This growth may be most startling to the average investor because it reflects a period marked by the collapse of Long Term Capital Management in 1998.

The failure of Long Term Capital Management (LTCM) in 1998 has been referred to as the greatest collapse in hedge fund industry - only time will tell if the most recent collapse of Bear Stearns is reflected in the same way. LTCM was founded in 1993 by John Meriwether, a renowned bond trader from Salomon Brothers, and took its name by touting the many accolades of its managers, which included two Nobel Prize winning economists. The fund began by raising $1 billion in investor capital, which it immediately put to work employing a bond trading strategy that sought to take advantage of arbitrage opportunities between securities that were incorrectly priced relative to each other. In the world of bond trading these arbitrage opportunities offer very small spreads in an effort to present investors with outstanding absolute returns the fund employed leverage to magnify these spread opportunities. At its high in 1998 LTCM had $5 billion in assets under management, controlled over $100 billion and held positions with total worth over a $1 trillion. On August 17, 1998, the Russian government issued a statement saying would be unable to fulfill their government debt obligations due to their own fiscal pressures. Panic ensued in the U.S. that led to a massive flight to quality for bond investors. Unfortunately for LTCM, this panic matched with the firm's highly levered nature and the relative illiquidity of their portfolio, and massive losses resulted for the fund. At the time LTCM held more than 5 percent of the total global fixed income market. The possibility that Long Term Capital Management would default on their outstanding loans became a new concern for investors. This scenario would have resulted in a major global financial crisis, as their creditors would be forced to write off the company's debt. In September 1998, the fund, which continued to sustain losses, was bailed out with the help of the Federal Reserve, and its creditors were taken over, preventing a systematic meltdown of the global financial markets.[7]

Much can be learned by reflecting back on the fall out from LTCM. With recent news of Bear Sterns troubles and the Federal Reserve bailout, we can take comfort in the fact that the industry continues to grow and can learn what warning signs to look for when investing in hedge funds in the future.

The Basics

Hedge funds are one of the most misunderstood investments due primarily to their relative secrecy with the general public, well-publicized failures, and massive wealth enjoyed by hedge fund managers. Hedge funds are perceived by the public as risky investments generated by the greed that exists on Wall Street; however, perception is not always reality when it comes to hedge funds. The foundation for hedge funds was built from the fundamental desire of investors to receive attractive absolute returns versus traditional asset classes, with significantly less risk. In essence the hedge fund was created to "hedge" out the risk often related to traditional investments. Hedge fund managers attempt to do this by employing a wide variety of strategies, which include short selling, leveraging, and using simple and complex derivatives. While these

[7] Investopedia. http://www.investopedia.com/terms/l/longtermcapital.asp

strategies on their own present many risky attributes, in the context of a portfolio, the overall risk is dampened by reducing a portfolio's exposure to volatile assets or by introducing low or negative correlation assets into the mix.[8]

There are seven generally accepted categories hedge fund strategies fall into: Market Neutral (Relative Value), Event-Driven, Long/Short, Global Macro, Multi-strategy, Short Selling and Fund of Hedge Fund.

Market Neutral, often referred to as Relative Value, is a strategy that attempts to produce returns with no or low correlation to the traditional markets. Market Neutral strategies encompass both equity and debt, and include many of the arbitrage strategies used in fixed income hedge funds. They are characterized less by what they invest in but rather by the nature of their returns. The managers often use the quantitative data to develop portfolios that aim to eliminate a specific type of risk; beta neutral strategies being the most common. Market Neutral managers often market themselves as an investment that can improve the overall risk return structure of a portfolio of investments.

Event-Driven strategies are quite broad as well. Hedge fund managers who employ an event-driven strategy aim to exploit specific events that impact the market. The goal of an event-driven manager is to make a profitable investment in specific securities that are being affected by a particular event. Some examples of this strategy include: distressed debt investing, merger arbitrage, corporate spin-offs and restructuring. Activist and asset-based lending funds often fall under this heading.

Long/Short strategies are the most common hedge funds. They generally invest in equity and/or fixed income securities taking directional bets on an individual security, sector, or country level. While they share some traits with market neutral strategies, they are a separate category and traditionally use fundamental analysis, as opposed to quantitative, to generate their ideas. [9]

Global Macro strategies aim to profit from changes in global economics. These changes are typically brought about by shifts in government policy that impact interest rates affecting the currency, stock, and bond markets. The funds seek to exploit the impact of changes by employing all major market segments (stocks, bonds, commodities), but not always at the same time. Global macro managers often use leverage and derivatives to accentuate the impact of market moves.

Multi-Strategy managers seek to diversify their portfolio by using an investment approach that employs a variety of strategies simultaneously to realize both short and long term gains. Some of the most common strategies used are systems trading, such as

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[8] Alternative Investments: Debunking the Myths that Dog Hedge Funds. Alexander Ineichen. Registered Rep Magazine. March 1, 2003.
http://www.registeredrep.com/mag/finance_debunking_myths_dog/index.html

[9] "Introduction to Hedge Funds" Neil A. Chriss. New York University. Banking and Finance Lecture. December 1998. http://www.math.nyu.edu/faculty/chriss/neil/lecture12/hedgefunds.htm

trend following and other diversified technical strategies. Multi-strategy investing allows the manager to overweight and underweight different strategies to best capitalize on current investment opportunities.

Short Selling, or Short-Biased managers seek to hedge specific areas of the market by selling securities short in anticipation of being able to buy them in the future at a lower price. The pricing assumptions are often based in fundamental analysis. The fund manager will make an assessment of the overvaluation of the securities or the market. Often times the manager is anticipating poor earnings, the entrance of a new competitor, or a change in management, that could adversely affect the stock price.

Funds of Hedge Funds mix and match hedge funds to create a portfolio that offers investors greater diversification benefits. The blending of different strategies and asset classes aims to provide more stable long-term returns than any of the individual funds. They seek to control returns, risk, and volatility by mixing the underlying strategies. In general, Fund of Hedge Funds considers capital preservation the most important goal in the investment management. [10]

In any discussion about hedge funds it would be remiss not to explore the fee and liquidity structure they possess. A widely known fact about hedge funds is that they have considerable fees. Hedge funds, unlike mutual funds, receive their most lucrative fees from performance. Most hedge funds contain a 2 and 20 compensation structure. The 2 refers to the 2 percent standard fixed management fee charged to ensure the fund is able to perform its investment strategies. The 20 refers to the 20 percent performance fee received by the manager when a profit is generated. While the compensation structure is quite lucrative it is important to note that a manager only receives this fee if they produce a profit for investors. Unlike a mutual fund, you only pay when you make money. The 20 percent is not a standard charge paid by the underlying investors; rather it refers to a percentage of the gross profits generated on the fund level. When evaluating hedge funds, investors should consider if a fund uses a high-water mark. A high-water mark protects investors from paying a performance fee if they are experiencing a net loss. A high-water mark prevents a manager from receiving a performance fee if they generated a loss in one period. The manager can only begin receiving his performance fee once the loss for the investor has been recovered. The high-water mark limits the amount of risk taken by the fund. In a sense the manager only makes money when the investor makes money. Another option investors should consider is a hurdle rate. The hurdle rate is the minimum return the hedge fund manager must generate before a performance fee can be collected. The rate is often tied to London Interbank Offering Rate (LIBOR) and provides the investor with some cushion on their net returns. If a hurdle rate of 4 percent is applied to a fund and the manager generates a return of 14 percent, the performance fee can only be applied to the amount in excess of the hurdle rate, or 10 percent.[11]

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[10] "What is a Hedge Fund?" Magnum Funds. http://www.magnum.com/hedgefunds/abouthedgefunds.asp#strategies

[11] "Hedge Funds: Past, Present, & Future". René M. Schultz. Journal of Economic Perspectives. Volume 21, Number 2, Spring 2007. Pages 175-194.

In addition to fees, investors should also be aware of the liquidity constraints that hedge funds present. Unlike a traditional investment in a mutual fund or an individual stock, most hedge funds do not provide the convenience of daily liquidity. Hedge funds impose liquidity constraints on investors for a variety of reasons. They traditionally enjoy large investment minimums, causing limited numbers of investors to put capital into the funds. As a result, the redemption request of a single investor can have a significant adverse impact on the remaining investors, to protect the stability of capital and discourage investors from irrational liquidations, hedge funds mandate liquidity periods and require notice. Most hedge funds provide investors with quarterly liquidity and require 45 days notice. This means that an investor can only redeem their shares at the end of a quarter and must notify the fund manager 45 days prior to the start of the quarter they intend to liquidate. This allows the manager to liquidate the positions in the portfolio at terms favorable for all investors. In addition, many hedge funds employ strategies fairly illiquid in nature that impose even stricter guidelines on liquidity, allowing for only annual or semi-annual redemptions; although, liquidity constraints are not limited to the this scenario. Many hedge funds also impose a Lock-Up period. The lock-up period is imposed when an investor first invests in a fund, and can last anywhere from six months to three years. When investors choose to invest in a fund they are notified of the lock-up period during which they are not permitted to redeem their shares. In an effort to be more investor friendly, many hedge funds use a soft lock-up period that allows investors to redeem their shares during the lock-up period for a set fee of 2 to 3 percent.

When considering a hedge fund investment investors should consider the illiquid nature of the fund and the consequences of it. In extreme cases, funds have imposed *gates* on investors' redemptions, making it virtually impossible to redeem your shares. Investors may risk their entire investment should the worst-case scenario occur; therefore they should understand and carefully consider the liquidity of the fund's underlying investments before investing in a hedge fund.

Investing in Hedge Funds

There are a variety of benefits offered by hedge funds. Institutions have been employing hedge fund strategies in their portfolios for decades with attractive results. Institutions interested in hedge funds for their portfolio are typically looking to achieve two main goals:

1. Diversification away from conventional market risk.
2. To generate a source of return that has an economic rationale and is not entirely dependant on manager skill. [12]

These goals can also be achieved for individual investors through careful evaluation by a qualified professional. In the world of hedge fund investments it is imperative that appropriate due diligence be used in selecting the right hedge fund for a portfolio. A recent study conducted by the Bernstein Wealth Management Research Group, found that 80 percent of the return movements attributed to a typical hedge fund have been driven by manager skill, or alpha, versus only 20 percent for traditional long-only managers,

[12] "Diversification & Alpha" Robert A. Jaeger. Canadian Investment Review. Spring 2002.

whose performance tends to be far more reliant on broad market trends. This is an important discovery; it only further illustrates the importance of the hedge fund evaluation process. The same study found that investors receive handsome rewards when they employ the appropriate hedge fund strategy in their portfolio. According to the Bernstein study, over the 10-year period ending in 2005, hedge funds, on average, have delivered after-fee returns on par with stocks, but did so with less than half the volatility. In addition to the attractive risk-adjusted returns they provide, hedge funds show relatively low correlations to traditional equity investments.[13] Exhibit A shows the average correlations of the broad hedge fund indices with the more traditional investment benchmarks.

Exhibit A:

Alternatives Correlation with Traditional Market Indices
01/1997-04/2008

	S&P 500	*Russell 1000*	*Russell Mid Cap*	*Russell 2000*	*MSCI EAFE*	*LB Aggregate Bond*	*ML US HY Master II*
Equal-Weighted Hedge Fund	0.71	0.74	0.83	0.83	0.73	-0.09	0.51
Equity Long/Short	0.65	0.69	0.79	0.82	0.66	-0.08	0.42
Equity Market Neutral	0.19	0.21	0.27	0.27	0.19	0.1	-0.01
Equity Short Biased	-0.71	-0.74	-0.83	-0.88	-0.7	0.12	-0.5
Event Driven	0.66	0.69	0.77	0.78	0.68	-0.14	0.6
Global Macro	0.42	0.44	0.54	0.55	0.51	0.16	0.29
Multi-Strategy	0.39	0.41	0.49	0.52	0.44	-0.02	0.47

Source: Zephyr
Hedge fund indexes are provided and maintained by Barclays Asset Management. The indices are used for illustrated purposes. You cannot invest directly in an index.

The act of hedging through shorts and option strategies provides hedge fund managers with the flexibility to invest in a manner that fosters the consistency of returns. As a result hedge funds can provide investors with an important benefit, the reduction of "volatility drag".

The general public perception of hedge funds is also what appears to be their initial appeal: above average absolute returns. The truth isn't quite so clear. In reality an investor would likely look at the return stream of an average hedge fund and be a bit disappointed because on paper the returns don't really blow you away. The clear advantage of the hedge fund is the elimination of volatility. The term volatility drag or risk drag is used when referring to the actual compounded annual real returns provided by an investment. This is type of return stream is an often ignored statistic that can have a significant impact on the actual returns seen by the client.

Most investments report their returns on average annual basis. This figure is often deceiving because it is not an accurate reflection of what an investor will actually experience if they invest in that strategy. There are two main reasons. First investors rarely invest on the first day of a month, which is how the figure is determined. Second, the underlying volatility of the investment can affect the compounding aspect of returns.

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[13] "Hedge Funds: Too Much of a Good Thing?" Alliance Bernstein Global Wealth Management. June 2006.

Take the case of Lucent Technologies during the tech bubble as illustrated Exhibit B, a table found in The Bernstein Journal Report entitled "Escaping the Dangers of 'Risk Drag'".

Exhibit B[14]

Lucent Stock Returns							
	1997	1998	1999	2000	2001	2002	2003
Annual Return (%)	74%	176%	37%	-81%	-53%	-75%	125%
Ending Value of $1 Million	$1.74	$4.80	$6.58	$1.25	$0.59	$0.15	$0.33
Average Annual Return over the Period = 29%							
Compound Annual Return over the Period = -15%							

Source: Center for Research in Security Prices (CSRP)

Exhibit B illustrates the negative effect of volatility drag and the misleading nature of the average annual return figure. While Lucent experienced a 29% average annual return over the 7-year period, an investor would have actually experienced a 15% compounded annual loss. The important take-away from this scenario is that drawdown periods (periods of negative returns) and the amount of time it takes to recover from those periods are extremely important when evaluating an investment. Historically hedge funds have provided market like returns but with smaller and shorter drawdown periods, making the investors realized compounded return much more attractive (Exhibit C).

Exhibit C:

10 Year Risk Return Analysis (07/1/1998-06/30/2008)

Index	Annualized Return	Standard Deviation	Max Drawdown	Max Drawdown Length	Max Drawdown Recovery
Equal Weighted Hedge Fund	11.21%	6.86%	-8.23%	2 months	4 months
Equity Long/Short	11.49%	7.90%	-7.38%	2 months	3 months
Equity Market Neutral	6.69%	3.29%	-2.16%	1 month	2 months
Equity Short Biased	5.91%	18.06%	-33.17%	18 months	9 months
Event-Driven	10.25%	6.75%	-10.68%	3 months	6 months
Global Macro	10.41%	5.80%	-4.95%	5 months	3 months
Multi-Strategy	10.88%	3.44%	-3.27%	5 months	*--
S&P 500	2.88%	14.96%	-44.73%	25 months	49 months
Russell 1000	3.38%	15.12%	-45.06%	25 months	49 months
Russell Mid-Cap	8.10%	16.20%	-30.34%	25 months	14 months
Russell 2000	5.53%	20.03%	-35.06%	31 months	15 months
MSCI EAFE	6.23%	15.04%	-47.47%	39 months	29 months
LB US Aggregate Bond	5.68%	3.50%	-3.55%	2 months	6 months
ML US HY Master II	4.99%	7.30%	-10.64%	6 months	4 months

Source: Zephyr
Hedge fund indexes are provided and maintained by Barclays Asset Management. The indices are used for illustrative purposes. You cannot invest directly in an index.
**The Multi-Strategy Index is currently in a recovery period.*

[14] "Escaping the Dangers of 'Risk Drag.'" The Bernstein Journal: Perspectives on Wealth & Investing. Spring 2004.

Hedge funds can offer investors a variety of diversification and return benefits, but they aren’t for everyone. Interested investors should consult with their wealth advisor and discuss their goals and concerns. Due to the lack of public information on hedge fund offerings and the restrictions on the marketing efforts the funds can use, it’s incredibly important to work with a knowledgeable advisor to uncover funds that best you’re your portfolios. A qualified wealth advisor can navigate through the thousands of offerings to find funds that meet your liquidity and diversification needs.

Private Equity

History

In the United States, the history of private equity traced back to early 20th century Pittsburgh. The first trade on the modern day private market occurred in 1901 when JP Morgan purchased the Carnegie Steel Company from Andrew Carnegie and Henry Phipps for $480 million. Phipps became the first private equity investor in 1907 when he created the Bessemer Trust, which he used to invest his $50 million proceeds in private businesses and other exclusive holdings. The Bessemer Trust still exists today, investing its $46 billion in assets for the Phipps family and other mega-wealthy American families.

Over 40 years later the first venture capital firm was established when Georges Doriot, “the father of venture capitalism,” founded the American Research & Development Corporation in 1946. The firm is best known for its $70,000 purchase of Digital Equipment Corporation, which was later sold for a whooping $37 million, a return of over 52,000 percent. Venture firm, J.H. Whitney & Company, was also established in 1946, building its reputation by making shrewd investments in innovative products, such as one product that provided the military with a new method of delivering nutrition to the troops, a company that later became known as Minute Maid Juice.

The evolution of modern day private equity began in when President Eisenhower signed the Small Business Act of 1958. The purpose of the Act was to help speed efforts to develop technologies that could compete with those of the Soviet Union during the Cold War. The Small Business Act of 1958 allowed licensed venture capital firms, known as Small Business Investment Companies (SBIC), to borrow from the government at below market interest rates with the caveat that they must use the proceeds to invest in entrepreneurial ventures. During this same period a number of private venture capital firms began establishing themselves. Investors preferred these private firms to the SBICs because they were not relying on the government to raise capital and that provided them with greater flexibility in their investment decisions. It didn’t take long for the private firms to outnumber the SIBCs.

1964 marked the establishment of the first buyout firm, Kohlberg Karvis Roberts & Co., better known today as KKR. KKR took part in the first official leveraged buyout transaction, purchasing the floundering pest firm Orkin Extermination Co. Though the transaction was revolutionary it was an isolated event. Another 20 years would pass before leveraged buyout transaction became commonplace.

In the 1970s the U.S. economy staled and the markets struggled. The government voted to increase the taxes on capital gains, which further discouraged investors. In 1974 congress passed the Employment Retirement Income Security Act (ERISA). The Act restricted the types of investments pension funds could use, specifically barring investments that were deemed as too “risky.” This ban prevented pension funds from investing in private equity.

The excess of the 1980s were well illustrated in movies like "Wall Street" and "Pretty Women," which highlighted the new breed of private equity investors, the corporate raider. While the movies were fictional, the business of corporate takeovers and leveraged buyouts were gaining popularity. The excess of the 1980s was primarily driven by the reduction of the capital gains tax from 49 percent to 28 percent, and the relaxation of some of the restrictions originally established by ERISA. Now that pension funds were able to invest in private equity again, raising capital became much easier and more buyout firms joined the playing field. Many of today's major players in the buyout business came on the scene in the 1980s; Bain Capital was established in 1984, followed by The Blackstone Group in 1985 and The Carlyle Group in 1987. As the 1980s came to a close private equity giant KKR purchased RJR Nabisco in 1989 for $31.1 billion – the largest leveraged buyout deal in history.[15]

The Basics

Private Equity can be broken into three main categories: buyout strategy, venture capital, and mezzanine/specialty finance. Each category seeks to exploit a company in various stages of maturity.

Exhibit D:

Source: www.angelscorner.com

Buyout: The most popular segment of private equity is buyout strategy, which contains ⅔ of all private equity assets. Buyout firms raise investor capital and use that capital to acquire private companies, divisions of larger companies, or public companies. These firms seek to uncover operational and pricing inefficiencies that they believe they can fix, unlocking the true value of a target company and then repositioning it for sale at a multiple of their invested capital. Typically buyout firms have full control of the acquired company and control all aspects of the financial and operational strategy. The most successful buyout firms in the industry were founded and managed by individuals who previously led large investment banking groups or served as CEOs and senior managers at large publicly traded companies. For example, Louis V. Gerstner Jr., chairman of The Carlyle Group, served for ten years as CEO and Chairman of the Board at IBM.

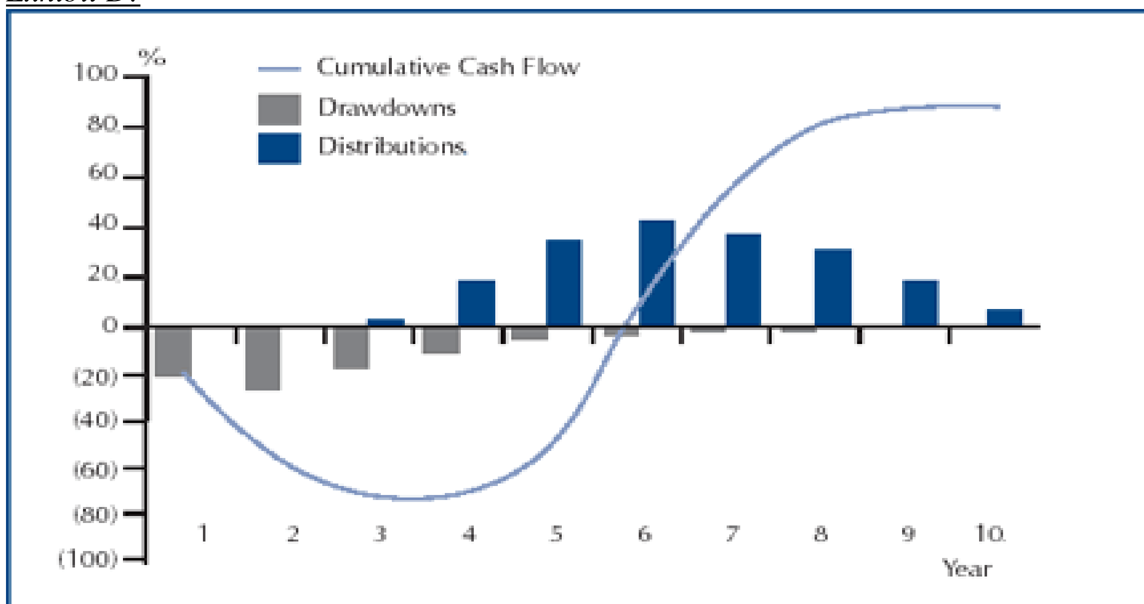
In the buyout universe choosing the right manager is of the utmost importance. The ability of a firm to turn around a company is the key component of the returns they achieve. A key differentiator for buyout firms is the breadth and depth of their partnership network. Due to their experience advising, managing, acquiring, and selling a large number of companies in particular industries, buyout firms have a keen

[15] "The History of Private Equity." Investment U. 2007. http://www.investmentu.com

understanding of business cycles, competition, valuation, product and financial innovations. [16]

Buyout strategies are the most accessible private equity strategy available to individual investors. In general, buyout funds are established and compared by vintage. This means that a fund begins in a specific vintage year and is compared to other funds that were also established in the same year. A buyout fund is established with a target capital amount it seeks to raise. Once the fund has reached its target it is closed to investors. An investor can traditionally establish an investment in a buyout fund by making a capital commitment that creates a binding agreement stating the investor will provide the promised capital when it is called by the firm in the future. When an investor receives a capital call they must be able to provide the amount requested within five days. Buyout firms only call capital when they have uncovered a viable investment. On average, capital calls occur over the first 3 ½ years of the investment period. When investing in a buyout fund an investor must be cognizant that their investment is not liquid and will likely be tied up for a period of up to 10 years. This can be illustrated through the private equity J-Curve shown below:

Exhibit D:



Source: www.angelscorner.com

As illustrated in Exhibit D, capital is called and invested in the first five years (the investment period) of the fund. As the fund finds attractive investments, the capital is invested. Each investment is then sold at some point in the future at a multiple of the original invested capital and each investor receives their share of the profits, net of the firm's management fees, as a cash distribution (the harvest period).

As with hedge funds, buyout funds contain an incentive fee structure. In general the buyout firm earns a management fee of 1 to 2 percent of committed capital, and 20

[16] "Private Equity Outlook." The Central Park Group. May 2008.

percent carried interest. Carried interest, similar to a hedge fund's performance fee or a traditional royalty agreement, is a portion of the gains that the firm is entitled to. In most cases all existing management fees, expenses, and a hurdle rate (typically 8 to 9 percent) must be achieved before the firm can collect any carried interest.[17]

Venture Capital (VC): In contrast to buyout strategies, which focus their energy on established companies, venture capitalists seek to invest in companies that are in the very early stages of development that may need seed capital and guidance to help establish their business. They focus most often on companies that provide innovation to an industry, targeting industries such as information technology or biotechnology. There are three main forms of venture capital: angel investors, financial, and strategic.

Angel investors provide seed capital to companies in the very early stages of development. Most often these investors are simply wealthy individuals who have a strong understanding of the particular industry; therefore, they are uniquely qualified to judge the high risk associated with this type of investment. The capital provided by these investors is usually less than $1 million, and in return they may receive an ownership stake in the company, participation in a future IPO, or some established return as the company grows and raises additional capital. Two great examples of angel investment opportunities can be found by looking at the history of technology giants Google and Apple Computer. [18]

Today, Google, Inc. is widely considered the most successful Internet search engine in the world. The idea for Google began in January 1996 when two Stanford PhD students, Larry Page and Sergey Brin, began working together on an Internet search product called "BackRub," that used "back links" to point to specific websites analyzing search trends. The link analysis coupled with their developed algorithm, became the foundation for today's Google. The founders of Google knew they had an innovative product for Internet search but lacked business acumen, and an idea of what the next steps were for their product. In the summer of 1998 they discussed their idea with Andy Bectolsheim, co-founder of Sun Microsystems. Bectolsheim was so impressed with the idea that he wrote a check made out to the yet to be established legal entity, Google, Inc. for $100,000, providing Page and Brin the capital they needed to establish their company.[19]

In the case of Apple Computer, a young Steve Jobs, along with co-founders Steve Wozniak and Ron Wayne, spent the first half of 1976 developing a microcomputer called Apple I, in the garage of Job's parent's house. When the Apple I was completed in March of 1976, Steve Jobs sought to sell the product to electronic hobbyists, but had no real direction for marketing it. Jobs was introduced to Mike Markkula, a former Intel marketing manager, who retired at age 32 on the millions he had made as a result of his Intel stock options. Markkula helped Jobs establish a marketing strategy and business plan. He also provided Apple with the $92,000 and a guaranteed $250,000 line of credit,

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[17] "Private Equity Outlook." The Central Park Group. May 2008.
[18] "Some Basics of Venture Capital" Michael Kearns, Syntek Capital. Yale University. E-Commerce Lecture. Fall 2001. http://zoo.cs.yale.edu/classes/cs155/fall01/kearns.pdf
[19] "Google Milestones" Google Corporate Overview. http://www.google.com/corporate/history.html

which allowed for the company to incorporate the name Apple Computer, and establish the foundation to build the Apple empire.[20]

Financial Venture Capital is the most common form of venture capital investing. Unlike angel investors, financial venture capitalists have established firms that focus their business model on raising capital from institutions and individuals through venture capital funds, and then using the fund's capital to invest in early stage companies. The funds typically average in size from $25 million to over $1 billion. In some cases these firms are established as holding companies that provide a majority ownership and a controlling interest in the underlying firms they invest in. The primary goal for these firms is to maximize their return on investment, which can be achieve when the firm goes public or is purchased by another firm.

One of the largest and most well-known venture capital firms is Sequoia Capital that is best known for its lucrative investments in the early development of Google, Cisco Systems, NVIDIA, Oracle, Yahoo, and YouTube.

Strategic Venture Capital is most often a division of a large company in which research and development can offer a competitive advantage. Large technology companies like Intel, Microsoft, and Cisco have established divisions that look to make strategic investments in up-and-coming businesses that either benefit from the use of their product, or who provide some synergy with the larger companies' core businesses. The primary driver of the investment is to help these start-up firms because they may actually spur revenue growth for the larger company. In addition to the monetary investment they provide, they also provide valuable insights into the business and an established network of valuable contacts. [21]

An example of a strategic venture capital investment involves Xerox. In the early development of Apple Computer, Xerox invested $1 million in the company, receiving 100,000 shares of stock at the IPO, and inadvertently provided Steve Jobs with the idea for what became the MacIntosh, while giving him a tour of their Palo Alto Research Center.

<u>*Mezzanine/Specialty Finance:*</u> Mezzanine Financing is an alternative debt investment. This type of financing is most often provided to small growing companies, or larger struggling firms that may not be able to raise capital through more traditional avenues. Mezzanine financing is traditionally provided by venture capital firms or alternative lending institutions to assist in the expansion of an established company. It is often referred to as a "bridge loan."

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[20] "iCon Steve Jobs: The Greatest Second Act in the History of Business" Jeffrey S. Young, William L. Simon. Wiley Publishing. April 14, 2006.

[21] "Some Basics of Venture Capital" Michael Kearns, Syntek Capital. Yale University. E-Commerce Lecture. Fall 2001. http://zoo.cs.yale.edu/classes/cs155/fall01/kearns.pdf

Unlike traditional debt obligations, mezzanine financing has some equity characteristics. While the lender agreement does contain current repayment requirements, it often includes rights to convert the obligation to an ownership or equity interest in a company. Mezzanine obligations contain a greater amount of risk than a traditional debt obligation; they are not collateralized, and are subordinate in the company's capital structure, meaning it falls below more traditional bank loans in order of repayment. As a result, lenders who provide mezzanine financing require a higher rate of return, and it is not unusual for the agreement to contain interest rates set in excess of 20 percent. [22]

Investing in Private Equity

In the past qualified individual investors were shut out of the private equity game if they were unable to meet the traditional $10 million minimum investment requirements. These requirements made private equity investments a club only the elite could join. Today, private equity investments have become more accessible for investors. As with hedge funds an investor must be considered a "Qualified Purchaser" to invest in the funds, but with the growth of feeder funds, that give investors the ability to invest in big name private equity funds at smaller minimums with a nominal fee, you no longer have to be one of the über-rich to add private equity to your portfolio.

When evaluating private equity options its important to pay attention to the firm who is sponsoring the fund. In stark contrast from other investment options, private equity investments show wide dispersions between the top quartile managers and the rest of the pack. Top quartile managers have demonstrated an ability to provide their strong performance on a surprisingly consistent basis. This is mainly due to the unique nature of the industry. The top firms are able to gain access to the top professionals and resources that make them uniquely qualified to "turn-around" a struggling company, or exploit the strengths of a brand that may have been previously neglected by its parent company. In addition the largest Private Equity firms can provide instant expense-reductions in health care and vendor agreements, negotiating more favorable terms due to the sheer size of the firm, which includes all existing staff at the firm and every company acquired for the existing private equity portfolios that have yet to be sold.

A recent study conducted by the University of Massachusetts Center for International Securities and Derivatives Markets published the following illustration (Exhibit E) of the attractive performance and risk metrics that Private Equity can provide.

[22] "Mezzanine Financing". U.S. Department of Commerce. Minority Business Development. December 29, 2003. http://www.mbda.gov/?bucket_id=134&content_id=2279§ion_id=3

Exhibit E[23]*:*

Asset Performance (1990-2005)

Index	Average Annual Return	Standard Deviation	Sharpe Ratio	Maximum Drawdown	Skewness*	Kurtosis**
Private Equity Index	14.48%	9.54%	1.08	-27.83%	-0.29	0.22
Venture Capital Index	21.14%	27.81%	0.61	-67.41%	3.02	16.09
S&P 500	11.33%	15.45%	0.46	-43.75%	-0.41	0.62
LB Aggregate Bond	7.25%	4.23%	0.73	-3.87%	-0.04	-0.79
LB High Yield	9.10%	8.83%	0.56	-11.79%	0.65	4.39

Source: Center for International Securities and Derivatives Markets (CISDM)
Private Equity and Venture Capital Indexes provided and maintained by Cambridge Associates. The indices are used for illustrative purposes. You cannot invest directly in an index.
**Skewness is a measure of the asymmetry in the indexes performance distribution*
*** Kurtosis is a measure of whether the data is peaked or flat in relation to a normal distribution curve. High kurtosis reflects a more peaked distribution, while low kurtosis reflects a flatter distribution.*

Private equity should be considered a long-term investment. Due to the illiquid nature of the fund and the length of time it may take the private equity firm to install the changes they deem necessary to improve the company's position, investors should be prepared to commit their capital for at least 10 years before realizing significant gains. While this illiquidity is an inconvenience, the benefit to the long time horizon, is that the gains the investors do receive, which are often times substantial, are taxed at the long-term capital gains rate.

[23] "The Benefits of Private Equity: 2006 Update" Center for International Securities and Derivatives Markets. University of Massachusetts. May 2006. http://www.cisdm.org

Managed Futures

History

Throughout the history of the United States farmers grew and sold crops to merchants through informal and formal trade agreements. Merchants sought to negotiate the price of the commodities at the time of purchase, making it difficult for farmers to forecast their future earnings, control their costs and led to uncertainty in their year-to-year income. In the mid-1800s farmers in the Midwest, who traded with merchants on the east coast, sought to eliminate to the uncertainty surrounding their business and ensure that they received income that offset their annual capital investments by establishing a market to determine the future value of their crops. In 1848, 82 grain merchants established the first organized futures market, the Chicago Board of Trade (CBOT). Originally, the CBOT exchange was located above a flour store, operated strictly as a cash market and market participants acted as either hedgers or speculators. The first standard futures contract on corn was established by the CBOT in 1949. The first recorded contract for the forward delivery of 3,000 bushels of corn was established in 1851. In its early years the CBOT was simply considered a commodities market because it was driven entirely by agricultural commodities.

The evolution of the Commodities Futures Trade Commission (CFTC) in 1974 was the catalyst for the rapid growth of the industry. The most dramatic change occurred in the mid 1975 when the CBOT introduced the first financial futures contract in the form of Mortgage-Backed certificates on Government National Mortgage Association (GNMA). Today these financial futures are the most dominant form of futures traded, 90% of all trades in exchange-traded derivatives are tied to interest rates or equity prices.[24]

The Basics

The most common form of managed future investments are done through pools of futures or forward contracts that are managed by a professional money manager. A futures contract is a standardized contract traded on a futures exchange. The contract specifies that the parties involved agree to buy or sell a certain underlying instrument at a specified price at a certain date in the future. A forward contract is a bit different. Forward contracts do not traditionally trade on an exchange, and as a result do not enjoy the same level of liquidity. A forward contract is an agreement between two parties to buy or sell an asset at some specified future date. The price of the underlying instrument is paid in advance of the change in control for the item. Unlike a stock or bond a futures or forwards contract is a derivative instrument which derives its value directly from the price of the underlying security. Derivatives are typically less volitile than the underlying instrument, and are far less expensive. However the risk-reward outlook tends to be less attractive than that of the underlying security and often times investors in these contracts will leverage their portfolio to produce returns that better reflect the returns of the underlying instrument.

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[24] "Demystifying Managed Futures." Man Investments Research, Analysis, and Strategy Group. November 1, 2007.

The futures market is a highly regulated . In 1936 Congress established the Commodity Exchange Act to ensure that the industry was federally regulated. Under this Act all individuals and firms (with some exceptions) that intend to do business as futures professionals must register with the CFTC. The National Futures Association (NFA) was established to receive and review applications and approve registrations. There are two main categories for these registrations; Commodity Trading Adviser (CTA) or Commodity Pool Operator (CPO). [25]According to the National Futures Association, "A CTA is an individual or organization which, for compensation or profit, advises others as to the value of or the advisability of buying or selling futures contracts or commodity options. Providing advice indirectly includes exercising trading authority over a customer's account as well as giving advice through written publications or other media." The same association defines a CPO as "an individual or organization which operates or solicits funds for a commodity pool; that is, an enterprise in which funds contributed by a number of persons are combined for the purpose of trading futures contracts or commodity options, or to invest in another commodity pool."[26]

The managed futures universe is divided into two categories, Systematic and Discretionary.

Systematic: The most common approach to managed futures. The traders that fall into this category rely most heavily on quantitative and trend analysis. They trade primarily in the context of a predetermined, often proprietary, systematic trading model. The trend-following programs can either directly follow a specific pattern or make decisions that are countertrend.

Discretionary: The traders that fall into this category rely much more on their own judgment as opposed to that of a computer model. They trade within a wide array of futures markets basing their decisions on proprietary trading models and on fundamental economic data.[27]

When the average person thinks about managed futures they view them as an investment in commodities, however futures contracts can be established for everything from oil, gold, the S&P 500 index, and interest rates just to name a few. At its core managed futures are trend strategies seeking to exploit pricing inefficiencies in a specific market. They typically have a strong directional bias and can use leverage. When managed futures began to gain popularity in the early 1970s they were fundamentally driven, but when computers became more commonplace the strategies became much more complex and driven through quantitative and statistical models. The chart below (Exhibit F) was

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[25] "Diversification Benefits of Managed Futures." Thomas Schneeweis Ph.D. & Bhaswar Gupta Ph.D. The Journal of Investment Consulting. Volume 8, No. 1, Summer 2006. Pages 53-56.
[26] National Futures Association, Registration Categories. http://www.nfa.futures.org/registration/who_has_to_register.asp
[27] The Benefits of Managed Futures: 2006 Update" Center for International Securities and Derivatives Markets. University of Massachusetts. May 2006. http://www.cisdm.org

created by Man Investments, a leading managed futures provider, and illustrates some of the most common methods used today.

Exhibit F[28]

CTA Trading Technique	Description
Serial Correlation Analysis	Correlation of a variable with itself over successive time intervals. Managed futures traders use serial correlation to check to what degree past prices predict future prices.
Trading or volitilty break-out	When the percentage price move of an asset exceeds a certain threshold.
Position measuring based on volitility	Positions are sized as a function of volitility. In a high volitility market environment, positions are scaled down and vice-versa.
Conditional Execution	Trading Signals are placed in the market with pre-defined conditions attached to them. For example: "Buy at market" if "volitility is below x and price above 100."
Term Structure Trading	Analysis of interest rate differentials as well as term structure premia in the markets. One implementation of this is the popular carry trade in the currency markets.
Reversal Pattern Trading	Predictive strategy that triesto time significant market reversals.
Probability signals: Position weighting	If statistically favorable probabilities of a directional move are measured then position sizes are increased.
Algorithmic trading/high frequency trading/execution robots	Traders are replaced with computers which execute the trades automatically, often generating short-term (intra-day) trading
Non-parametric approaches	Reduce the reliance of a particular time frame in order to derive more stable performance. Trading is also spread out to a larger time frame in order to reduce market footprint.
Dynamic sector allocation	Allocation to different market sectors such are commodities or currencies are adjusted in size, depending on opportunities and/or trends.
Behavioral finance	Strategies that rely on persistant errors in the marketplace which are driven by biases of the human behavior.
Fundamental methods	Econometric models that value certain markets in relationship to the economic cycle.

Source: Man Investments Research Analysis and Strategy Group. "Demystifying Managed Futures"

When evaluating managed futures investors should be aware of 3 common practices used by managers that can result in additional risk for the investment; margin trading, use of leverage, and notional funding.

Margin Trading: All futures and forward contracts are traded on margin. This means that the trader is only required to deposit a portion of the total cost to take a position. By using margin trading the investor can achieve 100% exposure to an underlying security with a fraction of the capital. This method of investing frees up additional capital that can be invested in areas that may provide less risk to the investor and can reduce the risk of actual exposure to the underlying security. The down side to this method is that it is essentially a form of leverage and opens up the investor to margin calls should the

[28] "Demystifying Managed Futures." Man Investments Research, Analysis, and Strategy Group. November 1, 2007.

investment turn against them. This could require the trader to sell out of other positions at unfavorable times to meet the margin requirements.

Leverage occurs when an investor borrows money to make an investment. In the case of managed futures it can be measured by looking at the ratio between the actual notional contract value and the amount of cash that was deposited into the brokering account. For example if a contract value is $10,000 and the trader deposits 10% or $1000 into the account the ratio is $10,000/$1000 or 10, meaning the trader is leveraged 10x. The risk with leverage is that it magnifies the gains and losses and can result in a significant increase in volatility. If a trader is 10x leveraged that means a 1% downside move will actually result in a 10% loss to the investor.[29]

Notional Funding is similar to margin trading and is a method often used by hedge funds that invest in managed futures. Notional Funding refers to the amount below the face value of the contract the CTA deposits into the brokerage account. The can deposit any amount below the face value but is required to meet the minimum margin requirement established by the firm. A recent article in Stock, Futures and Options magazine included a basic illustration of the strategy. "Assume a commodity trading advisor (CTA) has a minimum nominal amount of $1,000,000, and the margin requirement is $50,000. The investor can either deposit $1,000,000 to fully fund that minimum investment requirement or, alternatively, can invest only a portion of the $1,000,000, as long as that meets the $50,000 margin requirement.

Assume that the investor decides to fund the $1,000,000 account with $100,000. This means that the investor is using leverage of 10X — 10 x $100,000 = $1,000,000, the minimum investment. The difference between the nominal value ($1,000,000) and the cash deposited ($100,000) is $900,000. The $900,000 is referred to as notional funding.

Investors are interested in using notional funding because the notionally funded amount (in this case, the $900,000) is not borrowed or deposited—the cash ($100,000) is a good faith deposit for the full value of the account. In other words, the $100,000 trades as if it were $1,000,000, even though the investor only deposited $100,000 and is not paying interest or has not otherwise borrowed the remaining $900,000. If the account is doing well, the investor earns money on the full $1,000,000 – even though he only funded the account with $100,000. If the account is not doing well, however, the investor is responsible for the amount lost, regardless of the cash the investor originally deposited.

For example, assume that the account has a profitable year, and the CTA reports profits of 20 percent ($1,000,000 x 0.20 = $200,000) for the fully funded account. The account that was only funded with $100,000 also had $200,000 in gains – but the investor's profit percentage was 200 percent, because the investor earned $200,000 on a $100,000 investment.

Investors must be aware, however, that this is a double-edged sword. If the account has a

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[29] "Demystifying Managed Futures." Man Investments Research, Analysis, and Strategy Group. November 1, 2007

drawdown, the investor will suffer a significantly larger percentage decline than the fully funded account. If the example above suffered a 20-percent drawdown for the fully funded account, the notionally funded account would have a 200-percent drawdown. In such a situation, the investor would not only have lost his initial $100,000 investment, but an additional $100,000 on top of it. Furthermore, to keep the account open, the investor would have to deposit at least enough cash to cover the margin requirement.

In this regard, notional funding significantly increases the volatility of an account. Investors must ensure that they understand how much leverage the CTA is using – and the consequences such leverage might entail."[30]

As with any investment, fees are often an important consideration. In general, management fees in the managed future industry tend to be higher than those in the equities market. The general fee structure for managed futures is very similar to that of hedge funds and private equity. The manager of the portfolio will be compensated with a flat management fee and also receives an additional incentive performance fee. In addition to these fees a managed futures manager or trader often pass along the transaction costs associated with their trading activities.[31]

Investing in Managed Futures

There are 4 primary ways to invest in managed futures. An investor can gain exposure to managed futures in 4 primary ways; through a CTA using a managed account, a commodity pool operator, active managed futures indices, and passive indices.

Commodity Trading Adviser (CTA): Investors can traditionally invest in CTAs through hedge funds and other managed account vehicles. The majority of CTAs require minimum account sizes to qualify for specific investment programs. A CTA has full discretion to trade on the investor's behalf, and in doing so pass through the transaction costs as well as standard management and performance fees to that investor.

Commodity Pool Operator (CPO): Commodity pools are similar in structure to a traditional mutual fund. When investing in a commodity pool, all investor monies are pooled together and then invested into managed futures contracts. CPOs are available through public and private offerings. Public offerings are regulated by each state individually, and may have different minimum requirements set by the state of issuance or by the firm who is managing the offering. Private offerings are generally more restrictive than their public counterparts.

Managed Future Indexes: Investors can gain exposure to managed futures in their portfolio through the use of investable indexes, managed both actively and passively. On the active side, Standard & Poor's maintains the S&P Managed Futures Index, which is

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[30] "Investing for the Long Haul Part 2: Making Choices Along the Managed Futures Trail." Maggie Finnerty. SFO Magazine. July 2005.
[31] "Managed Futures: Portfolio Diversification Opportunities

equal-weighted among 14 programs.[32] (Exhibit G) Credit Suisse First Boston (CSFB)/Tremont Partners maintains the CSFB Managed Futures Index. This index is cap-weighted with larger weightings in funds with greater assets under management. The purpose for doing this is to better replicate the "look & feel" of the managed futures universe. Currently the index holds 32 underlying funds. (Exhibit H)[33]

Exhibit G[34]

S&P Managed Futures Index Constituents	
Tracking Fund/Portfolio/Advisor	Strategy
Aspect Diversified Fund	Managed Futures
Chesapeake Diversified Program	Managed Futures
Drury Capital Inc. Diversified Trend Following Program	Managed Futures
DUNN Combined Financial	Managed Futures
Eclipse Global Monetary Program	Managed Futures
Graham Global Investment Fund Ltd. (Diversified Portfolio)	Managed Futures
Hymen Beck & Company (Global Portfolio)	Managed Futures
John W. Henry & Company, Inc. Global Financial & Energy Portfolio	Managed Futures
Millburn International (Cayman) Limited-The Diversified Portfolio	Managed Futures
R.G. Niederhoffer Capital Management, Inc.	Managed Futures
Rotella Polaris Fund, Ltd.	Managed Futures
Willowbridge Argo Trading System	Managed Futures

Index is created and maintained by Standard & Poor's, a division of The McGraw-Hill Companies. The managed accounts for the S&P Managed Futures Index are maintained by PlusFunds Group, Inc. which is also licensed to create investment products based on it.

Exhibit H

CSFB Tremont Managed Futures Index Constituents	
Tracking Fund/Portfolio/Advisor	
Admiral Fund Ltd.	Aspect Diversified Fund
Blenheim Fund LP	BlueTrend Master Fund
Boronia Diversified Fund (Master) Limited	Brummer & Partners Lynx
Campbell Global Assets Fund	Chesapeake Select LLC
Dexia Systemat	Eckhardt Futures
Epsilon	FTC Futures Fund Classic
FX Concepts Global Currency Program Fund	FX Concepts Multi Strategy Fund
Graham Global Investment Fund Div Portfolio	Graham Global Investment Fund Proprietary Matrix Portfolio
IKOS Financial Fund	Legacy Futures Fund
Liberty Global Fund LP	Millburn
MLM Index Fund	Quadriga Funds
Rivoli International Fund	Rotella Polaris Fund
Roy G. Niederhoffer Fund	Roy G. Niederhoffer Funds
Roy G. Niederhoffer Negative Correlation Fund Ltd.	RQSI Managed Futures
SMN Diversified Futures Fund (Euro)	Sunrise Fund
Systeia Futures Fund	Tudor Tensor Fund
Winton Futures Fund	

Source: Credit Suisse Tremont Index LLC http://www.hedgeindex.com
Index is created and maintained by Credit Suisse Tremont Index LLC.

[32] "Diversification Benefits of Managed Futures." Thomas Schneeweis Ph.D. & Bhaswar Gupta Ph.D. The Journal of Investment Consulting. Volume 8, No. 1, Summer 2006. Pages 53-56.
[33] Credit Suisse Tremont Index LLC. 2008. http://www.hedgeindex.com
[34] Standard & Poor's, a division of The McGraw-Hill Companies. April 3, 2006. http://www.standardandpoors.com

In addition to the actively managed indices, investors also have access to a passively managed option. The most common passively managed index in managed futures is the Mount Lucas Management (MLM) Index. Created in 1988, the MLM index is based on actual market prices for a basket of actively traded futures contracts consisting of commodities, global bonds, and currencies and thus can be replicated in real time.[35] The MLM index is comprised of 25 different liquid futures markets with an equal weighting of 4% each. The MLM index is often used as a proxy for active managers, however performance can vary greatly due to the long and short techniques employed by many CTAs and CPOs.

Managed futures can provide investors with significant diversification benefits. In general CTAs and other managed future vehicles have low or negative correlation with the S&P 500 with attractive risk adjusted returns. (Exhibit I)

Exhibit I

CTA Performance & Risk Statistics as of June 2008

	Avg. Annual Return	Standard Deviation	Sharpe Ratio	Correlation to S&P 500
CISDM CTA Asset Weighted Index	12.87%	15.25%	0.156	.0162
CISDM CTA Equal Weighted Index	15.32%	16.59%	0.184	-0.0664
CISDM CPO Asset Weighted Index	10.81%	14.36%	0.126	0.0045
CISDM CPO Equal Weighted Index	10.01%	15.34%	0.107	-0.0077
S&P 500 Index	7.83%	14.71%	0.119	1.00

Source: Center for International Securities and Derivatives Markets (CISDM)
CTA & CPO indexes are created and maintained by the University of Massachusetts Center for International Securities & Derivatives Market. All statistics are based on the inception of 1/1/1980.
The indices are used for illustrative purposes. You cannot invest directly in an index.

[35] Mount Lucas Management Corporation. https://www.mtlucas.com/about.aspx