

Hedge Fund Position Paper

Part I: Understanding the Asset Class

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Abstract

This paper is meant to provide an overview of the hedge fund asset class, an analysis of the qualitative and quantitative factors that should be used to assess hedge funds and determine their appropriate use in a portfolio, and lay-out and justify Marquette Associates' position on the use of hedge funds in client portfolios. Recommendations as well as guidance towards making an allocation to the asset class are also included.

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History

The first hedge fund in the United States was started in 1949 by Alfred Winslow Jones who invested both long and short in publicly traded stocks in order to limit market risk and generate positive returns in any market environment. Jones' model was largely ignored by the investing public until an article about his fund appeared in a 1966 Fortune article titled, "The Jones Nobody Keeps Up With".¹ Two years later a survey by the SEC found that 140 hedge funds existed in the United States and the industry has grown steadily ever since. Over the last decade hedge fund asset growth has accelerated as investors search for consistent returns in a stagnant equity market. Today total assets in the hedge fund industry are just over \$1.5 trillion with more than 6,500 hedge funds operating in the U.S.²

Introduction

The Chartered Alternatives Investment Analyst ("CAIA") Association defines a hedge fund as *a privately organized investment vehicle that manages a concentrated portfolio of public and private securities and derivatives instruments on those securities, that can invest both long and short, and that can apply leverage.*³ Defining exactly what constitutes a hedge fund is difficult because hedge fund managers have considerable more leeway in how they invest than traditional investment managers. However, the primary objective of most hedge funds is to provide superior risk-adjusted returns with low correlations to traditional asset classes (stocks, bonds, and real estate). Hedge fund managers attempt to achieve this by using a broad array of strategies. The following characteristics are common of most hedge funds:

1. *Shorting* – Hedge funds typically sell shares or bonds they do not own, betting the price will fall and they can repurchase the asset in the future at a lower price. Shorting allows funds to profit from a drop in the overall market or an individual security. Shorting also allows funds to hedge market exposure and thus limit the effect of broad market declines on investor portfolios.
2. *Leverage* – Most funds employ leverage, either by borrowing money or with the use of derivatives, to magnify returns. As a result hedge funds can invest more than 100% of partner capital.⁴
3. *Private Partnership* – While this has begun to change somewhat in recent years most hedge funds are still private partnerships in which a general partner manages capital for a group of qualified investors. Historically these partnerships have been outside the regulatory bounds of the SEC.
4. *Liquidity* – Most hedge funds have liquidity restrictions requiring new investors to commit capital to the fund for a certain period of time during which the investors are unable to withdraw their investment (this is often referred to as a lock-up). Redemptions are also typically limited to monthly, quarterly or annual withdrawals.
5. *Broad investment mandate* – Most hedge funds are not grouped into the style and size buckets that are typical of traditional investment mandates. As a result, managers have the ability to invest across a broader array of assets (stocks, bonds, commodities, currencies) than traditional investment managers.

¹ Loomis, Carol, "The Jones Nobody Keeps Up With." *Fortune* April 1966: 237–247.

² EurekaHedge, Hedge Fund Research (HFR)

³ Anson, Mark. *CAIA Level I, An Introduction to Core Topics in Alternative Investments*. Wiley, 2009. P. 119

⁴ Hedge funds typically report both gross and net exposure. Gross exposure is the fund's total invested position and can often exceed 100% of partner capital; net exposure is the fund's long exposure minus the fund's short exposure and typically much lower than 100%. A typical fund might report a month end exposure of 75% long and 55% short resulting in 130% gross and 20% net.

6. *Portfolio concentration* – Hedge funds tend to run more concentrated portfolios than traditional asset managers as hedge fund managers often focus on just a few of their best ideas.
7. *Fees* – Hedge funds typically charge both a management fee (1% to 2% of assets under management) and an annual performance fee (typically 20% of net returns). Most funds also have a “high-water mark” which assures that performance fees are only paid on cumulative increases in investor capital.⁵

All of these attributes are designed to give hedge fund managers additional flexibility. Traditional asset managers are often limited by narrow investment mandates that can, at times, have detrimental effects on investment performance. Conversely, hedge funds are designed to avoid many of these pitfalls and allow talented portfolio managers to make investments in mispriced securities regardless of size, style, or other sector classification.

Hedge Fund Sub-Classes

While hedge funds typically have broader mandates than most traditional investment vehicles there are a number of common sub-classes of hedge funds. Funds within these various sub-classes will invest in different securities but often use similar strategies to generate returns for their investors.

- *Arbitrage* – This strategy seeks to make low risk investments by buying one security and shorting another. The most common arbitrage strategies are merger arbitrage (speculating on whether certain merger and acquisition transactions will close) and convertible arbitrage (investing in convertible securities, often buying convertible bonds or preferred shares and shorting common shares of the same company).
- *Long/Short Credit* – Hedge funds focused on fixed income investments typically buying bonds they believe to be undervalued and selling bonds that are overvalued. Long/short credit often focuses on corporate bonds but funds also can invest in mortgage backed securities (MBS), leveraged loans, convertible bonds, government securities, and even short equities to help hedge exposure.
- *Managed Futures/Commodity Trading Advisor (CTA)* – This is a trend-following strategy in which managers make directional bets on a wide array of assets, but most commonly commodities, currencies, and interest rates. Managed futures funds typically use futures, forwards, swaps, and options on commodities and currencies to express their bets.
- *Distressed Debt* – This strategy focuses on deeply distressed companies in or near bankruptcy by making investments in the most senior parts of the capital structure at deep discounts to par value. Returns are generated when bond prices rebound if companies are able to avoid bankruptcy or when debt holders receive shares in the restructured company after the company exits bankruptcy protection.
- *Event Driven* – This is a very broad categorization that can often include other hedge fund classifications but is typically characterized by funds making investments in securities where a near term material event (acquisition, divestiture, management change, or other corporate action) is likely to occur. Often included in this category are Activist Funds which accumulate sizable positions in individual firms and then push for corporate action they believe will enhance shareholder value.

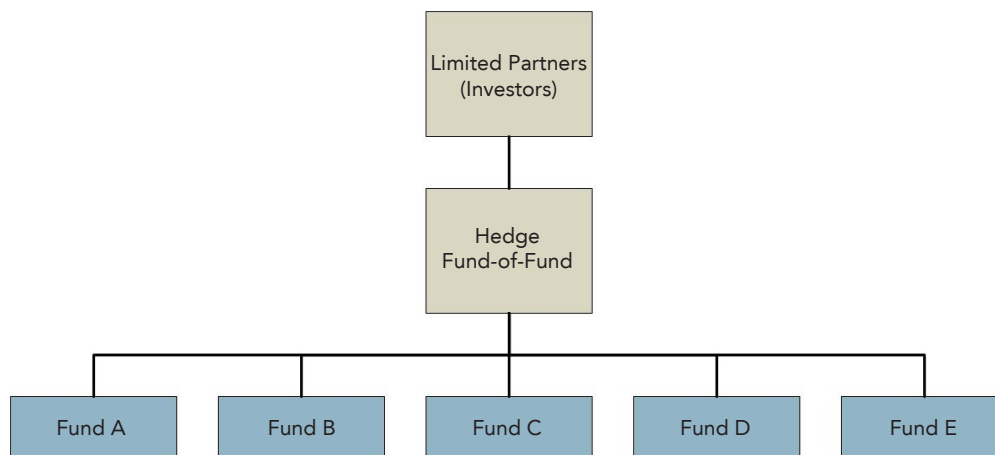
⁵ As an example assume a hedge fund is up 10% the first year, then down 20% the second year, and then up 10% the third year. Investors in the fund would pay performance fees during year one but not year two (when the fund was down) or year three when the fund's value increased but remained below the previous peak.

- *Global Macro* – This strategy typically makes directional bets on currencies and interest rates around the world. Global Macro funds can be either momentum or fundamentally focused and typically have a very broad mandate which can include equity and fixed income derivatives as well currencies and commodities. Like managed futures funds, global macro funds typically use futures, forwards, swaps and options to express their investment outlook.
- *Long/Short Equity* - Hedge funds focused on equity investments typically buying stocks they believe to be undervalued and shorting stocks that are overvalued. This is one of the most straightforward and common strategies in the hedge fund industry.
- *Multi-Strategy* – Often referred to as “multi-strat” this is a broad category where managers can employ multiple sub-strategies. Often large funds will follow the multi-strat approach with multiple portfolio managers managing a portion of the fund focused on a specific hedge fund sub-strategy (e.g. distressed debt, convertible arbitrage, etc.).
- *Relative Value* – This strategy, like long/short equity and credit, involves pair trades (going long one security and short another) but also focuses on maintaining little to no net market exposure.
- *Short* – Dedicated short funds always have a net short position. Some funds may have long positions to hedge their overall exposure but are primarily focused on finding overpriced securities with substantial downside potential.

Hedge Fund-of-Funds

Investors looking to gain exposure to hedge funds have the choice of investing directly in hedge funds or investing in a hedge fund-of-funds. Hedge fund-of-funds are funds that invest partner capital in other hedge funds.

Exhibit 1: Hedge Fund-of-Fund Structure




The hedge fund-of-funds model provides investors with a number of important benefits. As noted in our introduction to the asset class, hedge funds employ a number of strategies that are meant to magnify returns. These include leverage, shorting, derivatives, limited investor liquidity, broad investment mandates and concentrated positions. All of these are meant to provide hedge fund managers with the tools to generate strong risk-adjusted returns. However, because these attributes are meant to magnify returns they can have negative (as well as positive) consequences for the overall portfolio. Funds that feature leverage, shorting, concentrated positions, and derivatives can, at times, be subject to large drawdowns. By investing in a hedge fund-of-funds, clients can diversify risk across multiple hedge funds. As shown in exhibit 1, investors in hedge fund-of-funds gain access to multiple hedge funds with a single investment. This greater degree of diversification helps to offset some of the investment risk associated with hedge funds. A typical fund-of-funds will have investments with 20-40 underlying hedge funds, each with a different investment style and portfolio composition. Fund-of-funds also tend to add managers based on a portfolio construction approach, making sure to remain balanced across multiple strategies and adding managers with specialties to complement the entire fund.⁶ Both of these help to limit the investment risk of any individual hedge fund.

Limiting investment risk is just one benefit of investing in a fund-of-funds. Fund-of-funds also help to ameliorate the business risk associated with investing in hedge funds. As noted earlier, hedge funds are private partnerships that are lightly regulated by government agencies and there are additional operational considerations investors face that are unique to hedge funds.⁷ We classify business risk into the following three buckets:

- Firm Risk – Most hedge funds have a limited number of highly concentrated funds. Poor performance that results in a significant number of investor withdrawals can leave a manager with insufficient revenue to cover the cost of running the firm and paying his employees. Such a scenario often results in managers being forced to return the remaining capital to investors and close the fund. While not all of these “blow ups” result in the loss of investor capital, they can be disruptive and are often associated with periods of restricted liquidity.
- Key Man Risk – Most hedge funds are dependent on a few key investment professionals that drive the investment process and their skills are the primary reason that the limited partners invested in the fund. Investors are exposed to the negative consequences that would result should one or more of these key people die, become incapacitated, or for any other reason no longer be engaged in the day-to-day management of the fund.
- Fraud – Outright fraud, or gross portfolio mismanagement, remains a concern when investing in hedge funds. While these scenarios are rare the spectacular failures associated with firms like Amaranth, Long-Term Capital Management, Bayou Capital, and Madoff add additional risk to including hedge funds in an institutional portfolio.

⁶ The most common example of this is adding dedicated short managers to a hedge fund-of-funds portfolio. Adding dedicated short managers to a portfolio of hedge funds often increases alpha and helps to offset some of the long bias that is common in many long/short managers.

⁷ The current regulatory environment remains unclear regarding hedge funds. As part of the Frank-Dodd bill all hedge funds with over \$150 million in assets will have to register with the SEC. However, no deadline has been set for when registration must occur. As a result the majority of hedge funds remain unregistered.



High quality hedge fund-of-fund firms perform extensive operational due diligence on hedge fund managers, which helps to limit these business risks. These due diligence checks include:


- Review and verification of audited financials
- Review and verification of firm pricing policy and procedures
- Third party service provider verification (typically prime broker, auditor, and administrator)
- Background checks on key personnel
- Analysis of incentive alignment for fund owners and key employees
- Analysis of fund risk controls
- Analysis of any potential conflicts of interest

Hedge fund-of-funds also address two primary concerns surrounding liquidity. First is that most hedge funds have strict rules on when capital can be withdrawn from the fund and most require substantial lead times for redemption requests to be satisfied. The second concern is that in the event a large proportion of investors want to exit the fund at the same time, the hedge fund manager can “gate” investors in the fund, preventing them from withdrawing capital for a period of time.⁸ Investing in a hedge fund-of-fund allows investors to simplify their lock-up and liquidity schedules. Most fund-of-funds can also provide better liquidity to investors than can be achieved investing in a similar number of funds directly. Because hedge fund-of-funds have long-standing relationships with their underlying funds and existing capital invested in those funds, they can offer their investors better liquidity terms.

Manager sourcing and selection is another benefit of using hedge fund-of-funds. With a universe of over 6,500 different hedge funds, sourcing, evaluating, and selecting the best managers to invest with is a time consuming and difficult task. Most hedge fund-of-funds meet with hundreds of new hedge fund managers each year and allocate capital to just a few that they believe have an investment process and discipline that can consistently generate alpha over long periods of time. Fund-of-funds’ long history of sourcing and selecting managers gives them deep insight into what separates luck from skill when it comes to evaluating hedge fund returns.

Finally, there are two additional benefits that some, but not all, hedge fund-of-funds provide. The first is access to closed funds. After the events of 2008 “access” to top tier hedge fund managers is less of a concern than it was during the bull market from 2003-2007, but remains a challenge for investors focused on small managers that are often closed to new capital. Secondly, some hedge fund-of-funds are able to secure lower fees with hedge fund managers than other investors. This is often due to the fund-of-fund firm helping the manager launch a new fund or allocating additional capital after a period when the manager has generated poor returns. Often times these fee breaks can help offset the additional layer of fees investors incur when investing through fund-of-funds.

⁸ Hedge funds typically gate inventors when a large number of investors want to exit the fund simultaneously and the investments that the fund holds are not liquid enough to satisfy the redemption requests in a short period of time. In the event a manager does institute a gate all investors that have requested a redemption will receive a pro-rata share of any distributions the fund makes.



Thus hedge fund-of-funds provide investors with a number of key benefits. They provide expertise and due diligence procedures to help investors limit the business risk inherent to investing in hedge funds. Hedge fund-of-funds also offer valuable diversification benefits, helping to lower both business risk and investment risk while providing access to multiple hedge funds through a single investment vehicle. Hedge fund-of-funds sift through hundreds of hedge funds each year providing investors access to the best funds with a repeatable investment process that is likely to generate positive returns over long periods of time. Lastly, hedge fund-of-fund firms help to simplify the liquidity and lock-up issues that occur when investing in multiple hedge funds. Because of these benefits it is Marquette's position to recommend hedge fund-of-funds for clients looking to add hedge funds to their portfolios.

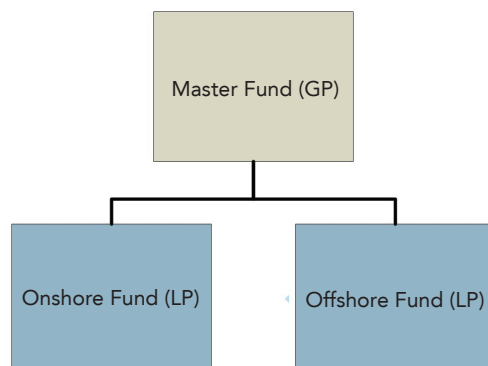
Structure

Hedge fund-of-funds are typically set up as a Limited Partnership (LP) or Limited Liability Company (LLC). Under this structure there is a general partner and a number of limited partners. The general partner is the hedge fund manager while the limited partners are the investors in the fund. This structure limits the liability of the limited partners to their investment in the partnership, thus protecting their other assets from litigation should the partnership be sued. The general partner, conversely, has unlimited liability. This serves to incentivize the general partner to act according to the letter of the law and acts as some justification for the fees charged to the limited partners.

Investments in these LPs or LLCs are either in commingled funds or separately managed accounts.⁹ Similar to traditional asset classes, separately managed accounts are unique to an individual client and securities (for hedge funds) or ownership in underlying funds (for fund-of-funds) is allocated to the separately managed account on a pro-rata basis. Commingled funds are a pool of capital managed by the general partner in which a number of limited partners own shares in the fund. Most commingled funds use a master-feeder structure: limited partners make investments in either an onshore or offshore fund and both feed up to a master fund which is managed by the general partner. Most firms have both onshore and offshore investment vehicles for tax reasons. U.S. taxable investors invest in an onshore fund and pay taxes on their investment gains. Non-taxable investors invest in offshore funds¹⁰ where investors are not subject to U.S. tax. Because hedge funds use leverage, their investors are often liable for a tax on UBTI (unrelated business taxable income). This is not a concern for taxable U.S. investors since they expect to pay tax on their gains, but it is a concern for non-taxable investors. By investing in an offshore vehicle all UBTI related income is trapped inside the offshore vehicle and not passed through to the non-taxable U.S. investor.

⁹ Historically hedge funds used the commingled fund model but as the asset class has become more institutionalized, more funds have begun to offer separately managed accounts for large investors.

¹⁰ Offshore funds are often organized as corporations not limited partnerships. This provides investors with all the legal protections that are common to limited partnerships but because taxes are not passed through to investors in a corporation the way they are in a limited partnership, all UBTI is trapped at the corporate level and thus non-taxable U.S. investors are not liable for paying UBTI.

Exhibit 2: Master - Feeder Structure

Fees

Hedge funds typically charge both a management fee (a fixed annual charge as a percentage of assets under management) and a performance fee with a high-water mark, which mandates that performance fees are only charged on net new profits. Investors in hedge fund-of-funds also incur an additional set of fees charged by the fund-of-funds firm.

Exhibit 3: Fee Summary

	Hedge Fund	Hedge Fund-of-Funds¹¹
Management Fee	1%-2.5%	0.5%-1.5%
Performance Fee	20%	0%-10%
High-Water Mark	Yes	Yes
Hurdle Rate	0%	0%-10%

To understand the effect that these fees have on performance consider the chart below which shows the gross returns for an individual hedge fund and the net return to investors after paying two layers of fees. This assumes a 2% management fee and 20% performance fee for the hedge fund and 1.25% management fee and no performance fee for the hedge fund-of-fund, both standard fee structures in the industry.

¹¹ Hedge fund-of-funds firms now offer a split fee structure where investors have the choice between a higher management fee and no performance fee, or a lower management fee and a performance fee.

Exhibit 4: Impact of Fees on Return

Gross Return	Net Return to Hedge Fund Investors	Net Return to Hedge Fund-of-Fund Investors
1.0%	-1.0%	-2.3%
2.0%	0.0%	-1.3%
3.0%	0.8%	-0.5%
4.0%	1.6%	0.4%
5.0%	2.4%	1.2%
6.0%	3.2%	2.0%
7.0%	4.0%	2.8%
8.0%	4.8%	3.6%
9.0%	5.6%	4.4%
10.0%	6.4%	5.2%
15.0%	10.4%	9.2%
20.0%	14.4%	13.2%
25.0%	18.4%	17.2%

While the fees that hedge funds charge remain a concern, our analysis of historical returns shows that to date, the higher fees have been justified by the risk adjusted returns produced by hedge fund-of-funds (see our return analysis on pages 11-13).

Liquidity

Liquidity consists of two primary issues for hedge fund-of-fund investors. The first is the “lock-up” period. Most, but not all, funds require that new capital in the fund be committed for a certain period of time when investors are unable to withdraw their capital. This is known as the “lock-up” period and is typically one year although lock-ups can vary significantly depending on the fund’s strategy, size, investor base, and fee structure. Investors that agree to longer lock-up periods are often compensated by paying lower fees.

The second liquidity concern for hedge fund-of-fund investors is the redemption schedule. Unlike traditional investments that can be sold in a matter of days most hedge funds only allow investors to withdraw capital periodically. Most funds typically have monthly or quarterly liquidity allowing investors to exit the fund only at the end of the month or quarter. Most funds also impose a lengthy notification period (anywhere from 30-90 days is typical) when investors must notify the general partner well in advance. While these restrictions often prove to be onerous to investors attempting to withdraw capital from a fund, they also serve to protect existing limited partners from capital flows into and out of the fund at times that would likely hurt investment performance.

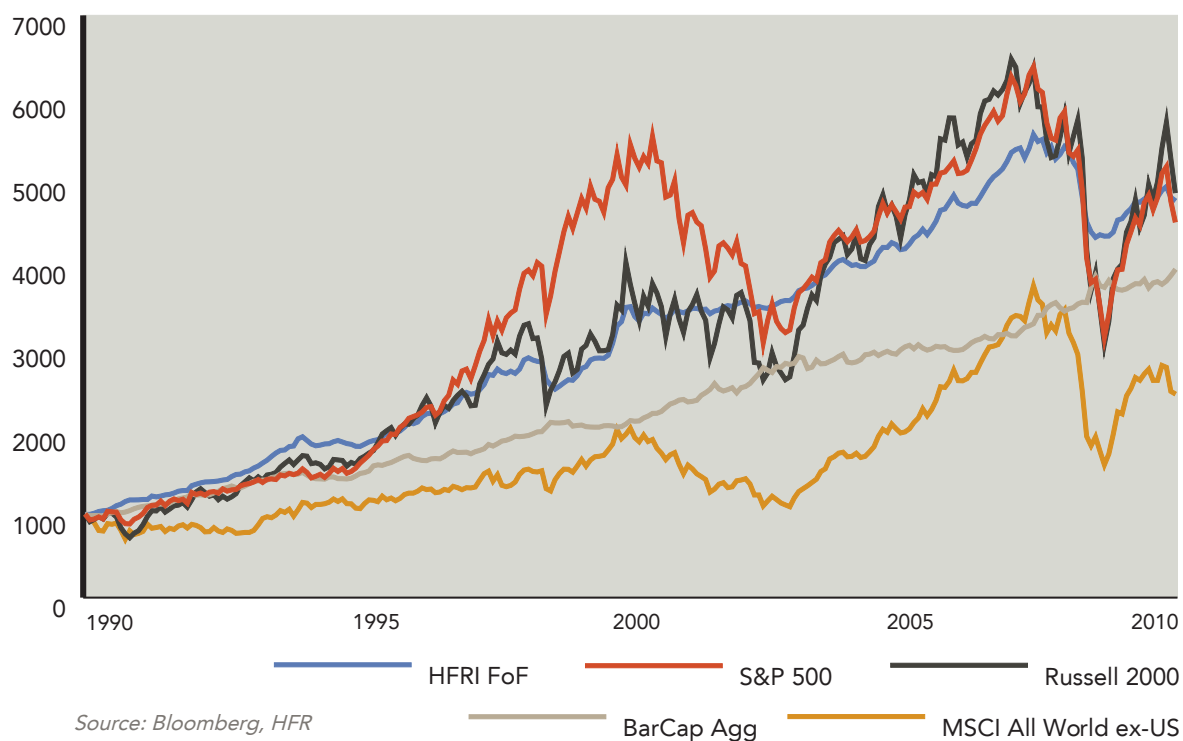
Minimums

Hedge fund-of-funds also require that investors in their funds meet a minimum investment amount. This is for three reasons. First, to avoid falling under the SEC regulatory umbrella all investors in a hedge fund must be “qualified investors”.¹² Regulations also limit the number of limited partners that any LP or LLC can have to one hundred limited partners. Last, because most hedge funds are small specialized investment vehicles with a limited number of employees, they often limit the number of investors in the fund to cut down on the administrative burden associated with managing a fund with a large number of small investors.

Return Analysis

Our return analysis focuses on the HFRI Fund-of-Fund index¹³ compared to indices for the other major asset classes. From a return standpoint hedge fund-of-funds offer two key benefits. First, over long periods of time hedge fund-of-funds have produced returns equal or superior to traditional asset classes. As the chart below shows hedge fund-of-funds have outperformed both the Barclays Aggregate (the broad bond index) and the MSCI All World Ex-US (broad international equity index) indices since 1990. Performance is roughly equivalent to the Russell 2000 (U.S. small-cap stocks) and the S&P 500 (U.S. large-cap stocks).

Exhibit 5: HFoF vs. Traditional Asset Classes since 1990

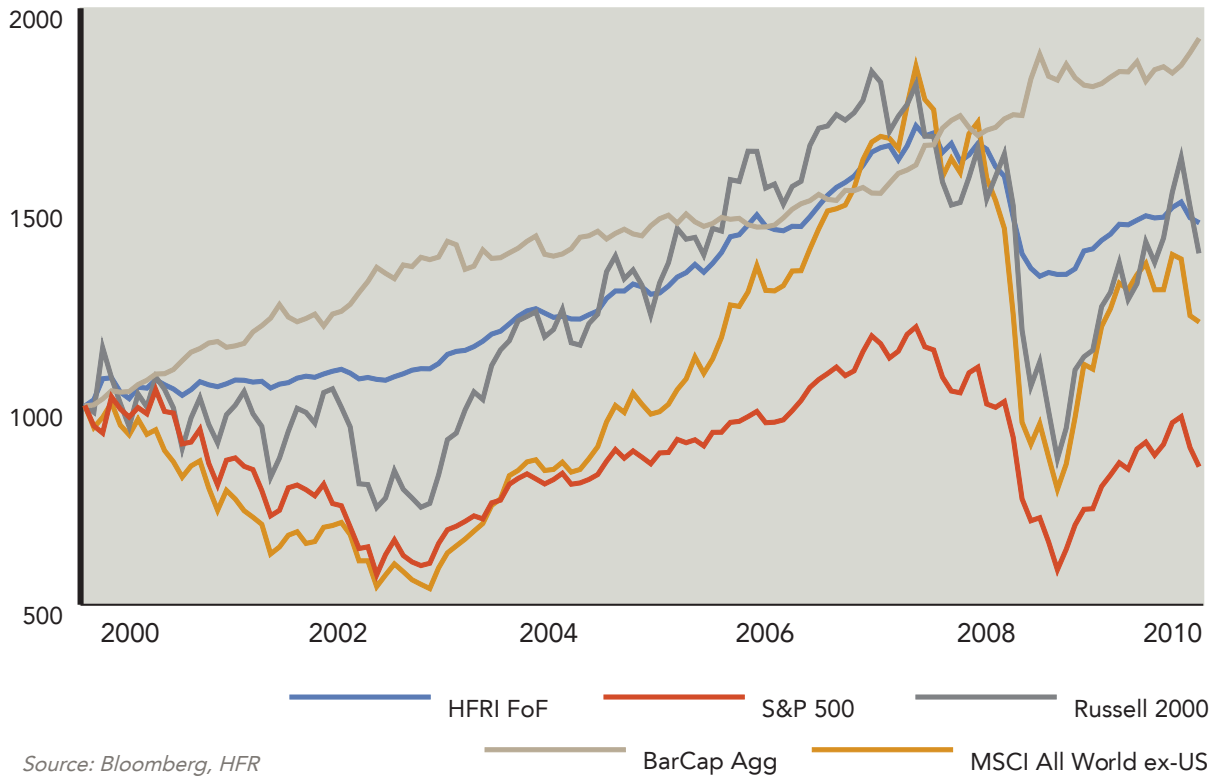


¹² Qualified investors include institutional investors with over \$25 million in assets and, according to Regulation D, Rule 501 of the Securities Act of 1933, individual investors who have a minimum net worth exceeding \$1 million and/or income exceeding \$200,000 in each of the last two years.

¹³ Hedge Fund Research Index (HFRI). It has been well documented that this and other alternative asset class indices suffer from a number of shortcomings that make them less robust than indices for traditional asset classes. While we believe that HFR indices are widely used in the industry they suffer from a shorter track record, less robust reporting standards, and survivorship bias in a way that does not affect traditional indices.

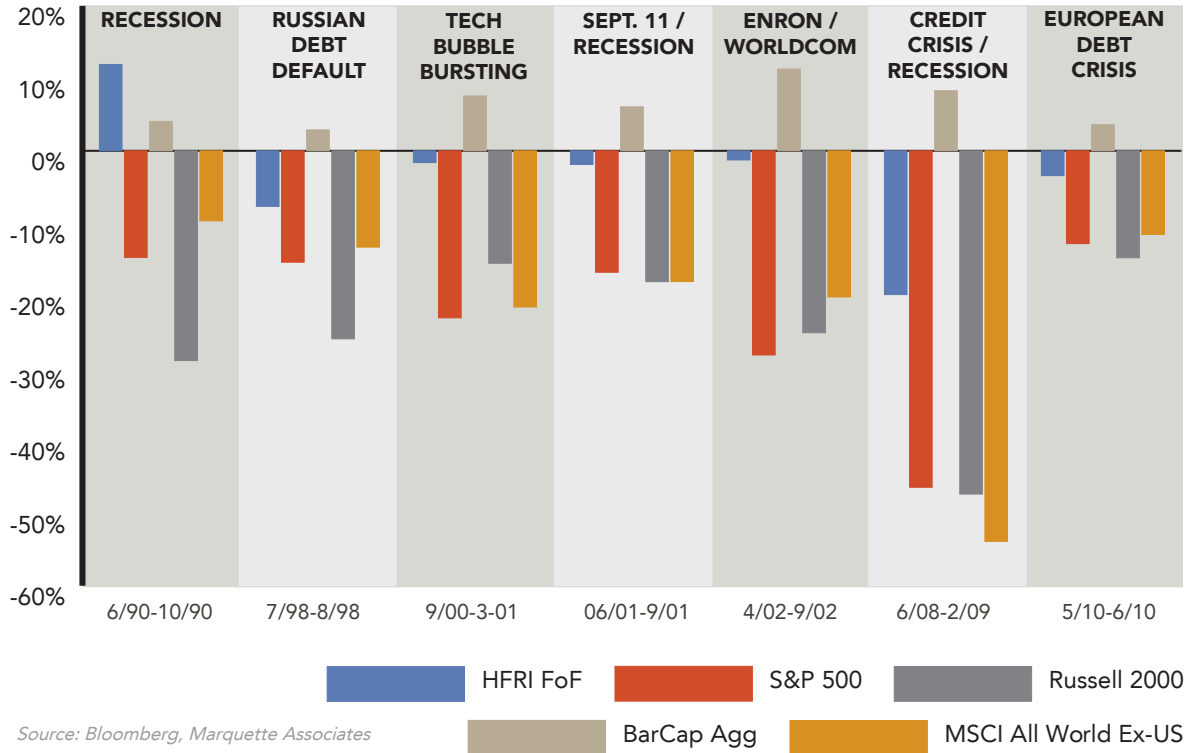
As the following chart shows, the strong performance of the hedge fund-of-funds asset class is not simply a remnant of strong returns in the 1990's but has continued over the last decade as well. The HFR index has outperformed the S&P 500, the Russell 2000, and the MSCI All World Ex-US index since 2000.

Exhibit 6 : HFoF vs. Traditional Asset Classes since 2000



Secondly, during periods of large drawdowns in the equity markets, hedge fund-of-funds have typically experienced significantly smaller withdrawals. As the chart below demonstrates, during periods of stress in the equity markets the HFRI Fund-of-Fund index consistently outperforms the other major equity benchmarks.

Exhibit 7: Performance Under Market Stress



The data clearly demonstrates that hedge fund-of-funds have generated equity like returns over a full market cycle but suffer from significantly lower drawdowns during times of high market stress. As a result returns over the trailing 3-year, 5-year, 10-year, and 20-year periods generally outperform the key equity benchmarks.

Exhibit 8: Historical Return Comparison

	HFRI FoF	S&P 500	BarCap Agg	Russell 2000	MSCI All World ex-US	Wilshire 5000
1 Year	4.7%	14.4%	6.7%	21.5%	10.9%	15.7%
3 Years	-4.0%	-9.8%	7.8%	-8.6%	-10.3%	-9.4%
5 Years	2.0%	-2.4%	5.7%	-2.3%	-1.2%	-2.1%
10 Years	3.4%	-1.6%	6.2%	3.0%	2.3%	-0.8%
20 Years	7.7%	7.7%	7.0%	8.2%	5.2%	7.9%

Source: Bloomberg

While there can be no guarantee that future returns will reflect prior performance, it is Marquette’s position that the structural factors inherent to hedge funds (shorting, leverage, concentrated portfolios) should continue to allow managers to create value (i.e. alpha) over and above traditional asset class benchmarks.

Risk Mitigation

While there are considerably more issues surrounding business and operational risk when investing in alternative assets (as previously discussed in this paper on pages 4-6) hedge fund-of-funds offer two risk mitigating characteristics when added to a portfolio. First, hedge fund-of-funds returns have historically had a low correlation to traditional asset classes. In addition, the volatility of returns from hedge fund-of-funds tends to be significantly lower than equities.

Our analysis of the historical correlation between the HFRI Fund-of-Funds index and other major asset classes shows low correlation, as evident in exhibit 9, but similar long term returns, as shown in exhibit 8.

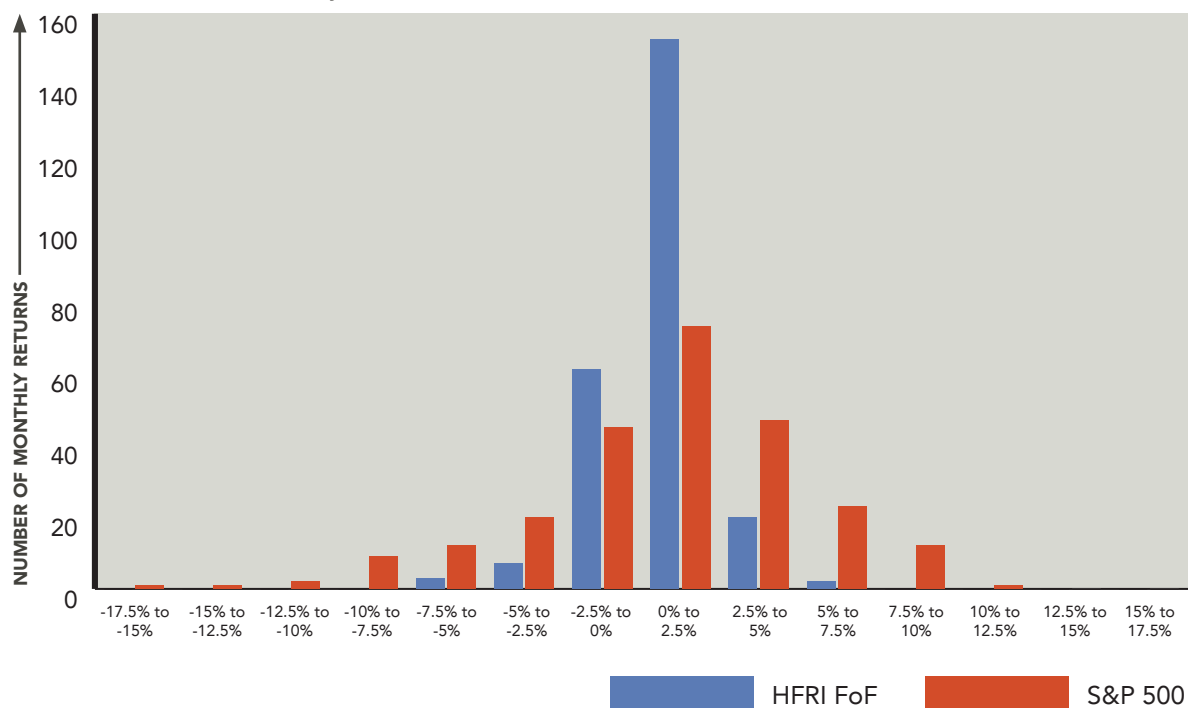
Exhibit 9 : Correlations (January 1990- June 2010) Computed Monthly

	BarCap Agg	S&P 500	Wilshire 5000	MSCI All World ex-US	Russell 2000	HFR FoF
BarCap Agg	1.00					
S&P 500	-0.02	1.00				
Wilshire 5000	-0.05	0.99	1.00			
MSCI AC ex-US	-0.07	0.75	0.76	1.00		
R2K	-0.12	0.79	0.87	0.67	1.00	
HFR FoF	-0.07	0.51	0.56	0.55	0.56	1.00

Source: Bloomberg, Marquette Associates

As a result, adding hedge fund-of-funds to a portfolio can offer valuable diversification benefits. Hedge fund-of-funds lower the overall risk of a portfolio by providing a less volatile return stream while still generating attractive long term returns. Because they hold cash and short, hedge fund-of-funds have historically also had a lower dispersion of monthly returns. Just as lower drawdowns provide valuable portfolio benefits, a more stable return stream also helps to lower the overall risk of a portfolio. The chart below shows the dispersion of monthly returns for hedge fund-of-funds and for the S&P 500 total return index. As is clearly evident, hedge fund-of-funds do not experience the "tail" returns that are so common in equity investing.

Exhibit 10 : Distributions of Monthly Returns (1990-2010)



Source: Bloomberg, Marquette Associates

Hedge fund-of-funds' lower risk and attractive return profile leads to superior risk adjusted returns. Compared to traditional asset classes the Sharpe ratio¹⁴ for hedge fund-of-funds is significantly higher due to similar returns with lower levels of risk.

Exhibit 11: Risk Adjusted Returns

	HFRI FoF	S&P 500	BarCap Agg	Russell 2000	MSCI All World ex-US	Wilshire 5000
20 Year CAGR ¹⁵	7.7%	7.7%	7.0%	8.2%	5.2%	7.9%
Standard Deviation	6.0%	15.1%	4.6%	19.6%	17.8%	15.4%
Sharpe ratio	0.80	0.31	0.86	0.26	0.13	0.32

Source: Bloomberg, Marquette Associates

¹⁴ Sharpe ratio is a measure of risk adjusted performance. The ratio is calculated by taking the annual rate of return over the risk free rate, divided by the annualized standard deviation of returns. In this case we used a 3% risk free rate to calculate the Sharpe ratio in Exhibit 11. It should be noted that the Sharpe ratio defines "risk" as the annualized standard deviation of monthly returns which may not be an appropriate measure of risk for all client portfolios.

¹⁵ Compound Annual Growth Rate (CAGR)

Asset Allocation Software

In addition to rigorously analyzing historical data, it is useful to consider the input of our asset allocation software, and how adding hedge fund-of-funds to a portfolio can change the expected risk and return metrics. Exhibit 12 illustrates two portfolios: portfolio A has a basic 60/40 allocation between stocks and bonds while portfolio B has a 10% allocation to hedge fund-of-funds, taking 5% from both fixed income and equity.

Exhibit 12 – Marquette Asset Allocation Results

	A	B
Broad Fixed Income	40%	35%
Broad U.S. Equity	60%	55%
Hedge Fund-of-Funds	0%	10%
Total	100%	100%

Note: Broad fixed income represented by BarCap Aggregate Index, broad U.S. equity represented by S&P 500 Index, and hedge fund-of-funds represented by HFRI Fund-of-Funds Index.

	A	B
Avg. Annualized 10 Yr. Return	7.46%	7.60%
Avg. Annualized 10 Yr. Volatility	13.98%	13.26%
Downside Probabilit (Return <7.5%)	50.40%	49.10%
Downside Risk (Return <7.5%)	5.51%	5.22%

Source: Marquette Proprietary Asset Allocation Model

The results indicate that the inclusion of a 10% allocation to hedge fund-of-funds, portfolio B, increases the average annualized ten-year expected total return from 7.46% to 7.60% while reducing the average annualized ten-year volatility from 13.98% to 13.26%. The data suggests that by including a hedge fund-of-funds allocation in a multi-asset portfolio, one can increase the risk-adjusted performance of the overall portfolio.

Benefits

In making an argument for adding hedge fund-of-funds to a portfolio we have laid out a number of benefits that hedge fund-of-funds provide to investors. These funds have long term returns that are similar or superior to traditional asset classes. Despite having similar returns, hedge fund-of-funds have lower return volatility and a lower dispersion of monthly returns. This means they generate a more stable return stream for investors and can add to the diversity of a portfolio. Last, hedge fund-of-funds returns have historically shown a low correlation to traditional asset classes providing investors with both attractive risk-adjusted returns and an important diversification benefit.

How do hedge fund-of-fund managers generate such attractive returns, and can we expect their performance to continue? We believe that the strong performance of hedge fund-of-funds is largely due to the structural benefits inherent in the hedge fund model. The performance fee gives managers a strong incentive to perform, and aligns the general partner's interest with the limited partners, attracting the best and brightest minds in finance.

Hedge fund structures also give managers significantly more freedom in their investment mandates, allowing them to invest in a wider array of assets than many traditional asset managers. This allows them to invest in mispriced assets regardless of size, style or other criteria. Third, by using leverage and shorting stocks managers are able to magnify their returns and access a return stream (from shorting stocks) that traditional managers neglect. Last, by putting liquidity restrictions on investor capital, managers have the ability to invest in less liquid securities and execute trades that would not be possible for traditional asset managers who need to provide daily liquidity to their investors.

Hedge fund-of-funds, by investing in underlying hedge funds, provide investors with all the benefits of hedge funds with two crucial additional benefits, due diligence and diversification. Hedge fund-of-fund firms perform extensive due diligence and ongoing monitoring of the hedge funds they have invested with, which serves to substantially lower the investment and business risk inherent in hedge fund investing. Also, because most hedge fund-of-funds typically invest in 20-30 different underlying managers, investors receive the benefit of portfolio diversification within the hedge fund asset class, even though they are only investing in one fund (of funds). This allows investors to quickly and easily gain access to a portfolio of hedge funds and achieve diversification that would not be possible by investing directly in hedge funds.

Risks

While hedge fund-of-funds offer a number of attractive risk/return benefits, there are a number of important risk factors that investors should consider beyond the normal risk and return metrics. Potential investors in the asset class should be aware of the following items before making an allocation to a hedge fund-of-funds.

- Fees – As demonstrated in exhibit 4 the fees associated with hedge fund-of-funds are much higher than traditional investments and have a deleterious effect on performance over time. Given that our return analysis includes the higher fees that hedge fund-of-funds charge we believe that to date, the fees have been justified. However, the high fee structure has the potential to lead to underperformance during bull markets and can exacerbate losses during bear markets. High fees, even if justified by returns, can often be unpalatable for some investors.
- Liquidity – While hedge fund-of-funds add important portfolio diversification benefits the liquidity constraints that hedge fund-of-funds impose on their investors can limit a client's ability to rebalance at times due to lock-ups and other withdrawal restrictions. Investors that have recurring and large cash flow obligations may not be able to handle the limited liquidity provided by most hedge fund-of-funds.
- Business Risk – While fraud and theft are the most obvious concerns there are a number of other business risks associated with investing in hedge funds and hedge fund-of-funds that are not common to traditional asset classes. Although we have demonstrated the benefits that hedge fund-of-funds provide in helping to reduce the business risk that is inherent in the hedge fund asset class, no amount of prudence and due diligence can completely remove this risk. Associated with this is the "headline" risk that often follows the abrupt and unexpected closing of a hedge fund. Investors with grounds to be concerned about this "headline" risk may find that hedge fund-of-funds are not worth the added media scrutiny that may result if one of the funds they have invested in experiences operational challenges.

- Leverage – In order to magnify returns hedge funds typically use leverage (investing more than 100% of partner capital). See footnote for example of how this works.¹⁶ Leverage magnifies returns, both positive and negative.
- Transparency – Because hedge fund-of-funds invest with underlying hedge fund managers who often do not disclose all of their positions, there are considerable concerns around transparency. As a result, investors often have considerably less transparency into the underlying assets that the funds hold, especially compared to traditional asset classes. The wider investment mandates that hedge fund managers typically have also exacerbates this problem. Consequently, from month to month, it is often very difficult to know specifically what securities or trends are likely to drive investment performance. Last, because managers can be both long and short, using 13-F filings to gauge where a manager is positioned can be misleading, because managers often hold other securities or derivatives to substantially hedge their long exposures.

Recommendation

In summary, hedge fund-of-funds are an attractive asset class for the following reasons:


1. Attractive risk/return profile
2. Low correlation to traditional asset classes
3. Lower drawdowns during periods of equity market stress
4. A more stable return stream than traditional asset classes
5. Structure and characteristics unique to hedge funds which should allow managers to generate future returns that are on par with past performance

Given the attractive risk/return characteristics of hedge fund-of-funds and the diversification benefits they bring to a portfolio Marquette recommends including an allocation to hedge fund-of-funds in a diversified portfolio. The following constitutes Marquette's recommendations with regards to the hedge fund-of-funds asset class:

- Allocation – We recommend, for suitable client portfolios, an allocation of 5%-20% in hedge fund-of-funds.
- Fees – The maximum acceptable fee structure Marquette recommends is a 1.5% management fee with no performance fee, or a 1% management fee with a 10% performance fee. Any fee structure above these levels is likely to be too high for investment performance to offset the fee structure and lead to lower risk adjusted returns for clients.
- Liquidity – Marquette recommends a maximum lock-up period of one year, and a minimum of quarterly liquidity. For suitable client portfolios a more restricted lock-up or liquidity profile is acceptable in exchange for lower fees (which is common).

In order to add hedge fund-of-funds to a client portfolio the asset class must properly align with the client's risk tolerances and return expectations. Clients with large, regular cash flow obligations may find the illiquid nature of many hedge fund-of-fund investments to be inappropriate for their portfolios. Similarly, clients may find the high fees that are inherent in the hedge fund asset class are unacceptable despite attractive risk-adjusted returns.

¹⁶ If a fund has invested 150% of partner capital and the fund's investments are up 10%, investors will receive a 15% return (10% return * 1.5x partner capital = 15% return) minus any borrowing and transaction costs. However, this same principle works to magnify negative returns as well. If the same investments fell by 10% investors receive a -15% return (-10% return * 1.5x partner capital = -15% return).



Manager selection is also important in maximizing risk-adjusted returns because hedge fund-of-funds are an actively managed asset class. The key factors to consider in manager selection include:

- Proper alignment of interest. This is achieved by ensuring that the employees (particularly the portfolio managers and owners of the firm) invest a significant amount of their net worth in their funds. It is also preferable that the employees be the majority owners of the hedge fund-of-fund firm.
- Strong manager sourcing network. Firms should not simply rely on capital introduction teams and prime brokers to feed them new investment ideas but should have the network to source the best new talent in the industry.
- Portfolio construction framework. The hedge fund-of-fund firm should evaluate each prospective hedge fund manager on his own merit and also consider the effect (risk, return and correlations) on the combined portfolio.
- An extensive operational due diligence process. Firms need to have both a strong up-front process before adding a manager to the portfolio, and a strong ongoing process to ensure that managers remain in compliance with the procedures that have been set.
- Appropriate third party relationships. All hedge fund-of-fund firms should have nationally recognized auditors, administrators, and all third party service providers should be disclosed and supportive, but not central to, the investment process.

Firms that reach these standards will have the groundwork in place to generate alpha through their manager selection and due diligence process.



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