

Risks

Should you, would you, could you invest in hedge funds?

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Abstract

Hedge funds have become the darling of investors due to their presumed capacity to make money under all market conditions. Some are certainly worth investing in, and can augment a portfolio in very attractive ways. At the same time, they carry not only more but quite different risks than do portfolios of liquid securities. If you do not have the skills to evaluate these risks, don't invest. Using an agent in the form of a fund-of-funds advisor instead of investing directly has a lot of advantages, but not that of reducing the skill required. If you can not evaluate the fund-of-funds manager, do not invest.

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Promises and realities

If you have heard a sales pitch for hedge funds, then you have heard four promises. Relative to liquid securities or mutual funds, hedge funds are said to have:

- More consistent performance through market ups and downs.
- Low volatility relative to the rest of the portfolio.
- Diversification benefits due to a very low correlation between hedge fund returns and those of conventional assets.
- Greater liquidity than that provided by 'alternative investment' classes like private equity, venture capital, and timberland.

It is not easy to evaluate these claims, because hedge funds are relatively new, they are secretive by the nature of their trading strategies, and the available information is optimistically biased for various reasons which we will explain. Subject to these qualifications, here is what the available data tell us.

Performance consistency

At an aggregate level, hedge fund indices exhibit more consistency of performance than do market aggregate indices. As Figure 1 shows, the CSFB/Tremont hedge fund index implies a higher mean return with lower volatility over the past ten years than common stock market indices.

This hedge fund index does not, alas, correspond to investor reality. First, the reported hedge fund numbers are biased upwards. Fee levels for arranging intermediaries are very aggressive in this industry (typically, a 1.5% management fee and a 10% high-water-mark performance fee). Investing in an index-like diversified portfolio of hedge funds set up by an advisor requires the payment of these fees in addition to those charged by hedge funds and already subtracted from the index. Second, there is survivor bias in the reported numbers because many hedge funds (in 2002, perhaps as many as 20%) go out of business each year. Third, there is some actual cheating in reporting, related to the period of own performance

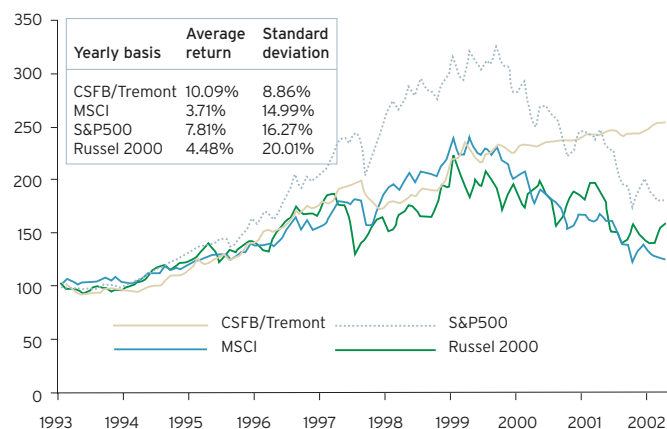


Figure 1: Average return of indices

before funds open themselves to public investors (called back-filling bias). This occurs because most of the thousands of hedge funds are under 3 years in age and create a performance history from a combination of trading in their current form and prior trading by the same management team. From academic studies such as Fung and Hsieh (2000), Cross Border Capital, (2001), and Lazard (2001), we can extrapolate that this bias exaggerates returns by between 3% and 5% per annum.

Beyond the biases, no one can actually buy the fund of all hedge funds that the aggregate indices represent¹, whereas they can buy the indices of liquid asset returns with which they are compared. An investor is actually able to buy into a hedge fund following some explicit strategy or style or, into explicit fund-of-funds structures which mix managers and styles. The industry has more or less settled on the Tremont structure of hedge fund styles described in Figure 2. The reported results of the last 10 years are provided in Figure 3.

One sees immediately that individual styles have been significantly more volatile than the notional overall hedge fund return index. The implication of Figure 4 below is that mixing the styles in proportions different than the overall index can produce much less favorable results.

¹ As an indication, the CSFB/Tremont index used as a reference in this article, is built on the TASS database which tracks over 3000 funds. The universe of this index consists only of funds with a minimum of U.S.\$ 10 million under management and a current audited financial statement. Funds are separated into primary sub-categories based on their investment style. The Index in all cases represents at least 85% of the assets under management in the universe.

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Directional strategies

Long/short equity directional
Take long and short positions with a directional bias by investing in equities or indexes

Emerging markets
Take long or long/short positions in all asset classes in emerging markets

Dedicated short biases
Take short positions in all asset classes

Global macro
Exploit macro-economic anomalies between regions

Managed future and CTAs
Identifies market signals/trends and uses derivatives to leverage the movements

Non directional strategies

Risk arbitrage
Exploit return opportunities associated with events such as LBOs, mergers and acquisitions

Convertible arbitrage
Exploit arbitrage opportunities on spread by pricing inefficiencies between securities of the same issuer

Fixed income arbitrage
Exploit arbitrage opportunities on spread by pricing inefficiencies between bonds of two or more issuers

Long/short equity market neutral
Take long positions that cover short positions to create a zero directional bias

Distressed securities
Invest in securities of companies facing bankruptcy

Asset backed securities
Exploit arbitrage opportunities between underlying assets and packages

Figure 2: Understanding hedge funds

| Yearly basis | Average Return | Standard deviation |
|-----------------------|----------------|--------------------|
| CSFB/Tremont | 10.56% | 8.70% |
| Convertible Arbitrage | 10.52% | 4.87% |
| Ded Short Bias | 0.42% | 17.84% |
| Emerging Markets | 4.97% | 18.60% |
| Equity Mkt Ntrl | 10.82% | 3.14% |
| Event Driven | 10.60% | 6.36% |
| Distressed | 12.37% | 7.32% |
| E.D. Multi-Strategy | 9.68% | 6.69% |
| Risk Arbitrage | 7.94% | 4.59% |
| Fixed Inc Arb | 6.78% | 4.11% |
| Global Macro | 14.01% | 12.44% |
| Long/Short | 11.24% | 11.25% |
| Managed Futures | 6.79% | 12.27% |

Figure 3: Style risk/return summary

Source: Based on CSFB/Tremont (www. hedgeindex.com)

This problem emerges in practice. The available evidence on fund-of-funds returns shows significantly greater volatility than the notional overall hedge fund return index for a large

number of funds of hedge funds. For example, Ineichen (2002) shows, for a sample of 475 funds of hedge funds, that the dispersion of volatility is significant: 19.4% had volatilities of 5% or lower; 34.1% were between 5% and 10%; 24.6% were between 10% and 15%; 11.2% were between 15% and 20%; and 10.7% had annual volatilities higher than 20%.

We believe that the fund of hedge funds industry is probably as heterogeneous as the hedge fund industry itself. This means that hedge fund indices are a pretty useless guide to the likely outcomes of an actual investment, even in a fund-of-funds.

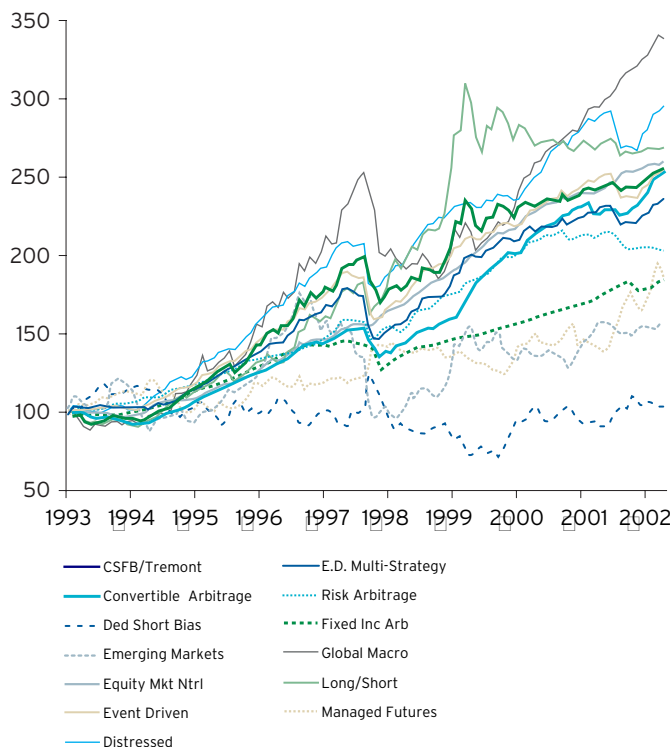


Figure 4: Average return of CSFB/Tremont sub-indices

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| Hedge fund strategy | Convertible arbitrage | Emerging markets | Equity market neutral | Event driven | Fixed income arbitrage | Global macro | Long/short | Merger arbitrage | Relative value | Short selling | Distressed securities |
|--------------------------------|-----------------------|------------------|-----------------------|-------------------|------------------------|--------------------|------------------|-------------------|---------------------|---------------------|-----------------------|
| Period | Oct 98 | Aug 98 | Dec 99 | Aug 98 | Oct 98 | May 00 | Feb 00 | Sep 98 | Sep 98 | Feb 00 | Aug 98 |
| Maximum reported indice return | 0.08% Hennessee | -26.65% MAR | 5.2% Van Hedge | -6.71% Altvest | 0.2% Van Hedge | 12% HF Net | -1.56% EACM | -0.11% Altvest | -6.07% EACM | -24.3% Van Hedge | -12.08% HF Net |
| Minimum reported indice return | -4.67% CSFB | -7.2% Altvest | 0.2% Hennessee | -11.77% CSFB | -10.78% HF Net | -5.8% Van Hedge | 20.48% Zurich | 1.74% HFR | -4.40% Van Hedge | -3.097% EACM | -4.70% Van Hedge |
| GAP | 4.75% | 19.45% | 5% | 5.06% | 10.98% | 17.80% | 22.04% | 1.85% | 10.47% | 21.20% | 7.38% |

Figure 5: Spread between maximum and minimum within-style returns
Source: Amenc and Martellini (2002)

This should not be surprising - it follows from the free-ranging logic of the hedge fund concept itself. Each hedge fund develops an absolute return strategy using the specific skills and focus of its managers. For instance, two long/short managers can generate very similar historical returns but with very different long/short strategies. One can be long/short in pharmaceutical stocks and the other in food stocks. Benchmarking one manager against the other is of pretty limited value. It makes much more difference which specific hedge fund you invest in than which style you invest in.

Such evidence as we have about the returns of managers supposedly following the same style tells us the same thing. Figure 5 summarizes the results of Amenc and Martellini (2002) on the difference in monthly index returns among funds supposedly following the same style.

Again we arrive at the conclusion that which fund you invest in dominates all the categorizations of styles because performance variation across funds following a particular style is much greater than variation across the average style performance indices.

Low volatility

Here we come to some fundamental but unfortunately complicated points about terminology and measurement.

First, we need to consider the implied information content of the volatility, which is the standard deviation of the portfolio. For conventional liquid assets, investors are comfortable that volatility estimates capture the essence of the investment risks that they face. For liquid assets, investors are in a good position to assess a wide variety of risks - market, credit, operational - and factor these into their valuation of the assets. Their trading reflects this knowledge and thus it is reasonable to argue that measured volatility captures this knowledge.

By contrast, the measured return volatility of hedge funds contains only very limited information about the overall magnitude of the risks an investor embraces by putting money into the fund. For hedge funds, reported return volatility is not the outcome of competitive prices driven by broadly informed traders. This volatility constitutes only the self-reported variability of the financial returns of the hedge fund strategy, period. No risk associated with the quality of the hedge fund (fraud, leverage, etc.) is contained in this measure of volatility. Reported hedge fund volatility is just the tip of the iceberg of economic risk in investing.

Second, statistical issues also make measured volatility not very informative to an investor assessing investment risk. A hedge fund's self-reported net asset value (NAV) is computed on a monthly or quarterly basis, which enables the fund man-

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| | CSFB/ tremont | Convertible arbitrage | Ded short bias | Emerging markets | Equity Mkt Ntrl | Event driven | Distressed | E.D. multi- strategy | Risk arbitrage | Fixed inc arb | Global macro | Long/ short | Managed futures | MSCI the world index |
|-----------------------|------------------|--------------------------|----------------------|---------------------|--------------------|-----------------|------------|----------------------------|-------------------|------------------|-----------------|----------------|--------------------|-------------------------------|
| CSFB/Tremont | 100% | | | | | | | | | | | | | |
| Convertible Arbitrage | 41% | 100% | | | | | | | | | | | | |
| Ded Short Bias | -47% | -23% | 100% | | | | | | | | | | | |
| Emerging Markets | 65% | 34% | -57% | 100% | | | | | | | | | | |
| Equity Mkt Ntrl | 33% | 31% | -38% | 23% | 100% | | | | | | | | | |
| Event Driven | 66% | 60% | -61% | 70% | 38% | 100% | | | | | | | | |
| Distressed | 57% | 53% | -61% | 61% | 36% | 94% | 100% | | | | | | | |
| E.D. Multi-Strategy | 67% | 61% | -53% | 70% | 36% | 93% | 77% | 100% | | | | | | |
| Risk Arbitrage | 37% | 41% | -46% | 43% | 31% | 68% | 57% | 66% | 100% | | | | | |
| Fixed Inc Arb | 45% | 55% | -7% | 30% | 8% | 38% | 30% | 43% | 12% | 100% | | | | |
| Global Macro | 86% | 30% | -12% | 40% | 20% | 36% | 30% | 41% | 11% | 46% | 100% | | | |
| Long/Short | 78% | 26% | -73% | 59% | 36% | 66% | 59% | 63% | 50% | 20% | 42% | 100% | | |
| Managed Futures | 8% | -24% | 27% | -16% | 13% | -25% | -18% | -28% | -27% | -10% | 24% | -10% | 100% | |
| MSCI The World Index | 47% | 11% | -74% | 53% | 39% | 58% | 57% | 51% | 45% | 2% | 18% | 62% | -22% | 100% |
| MSCI North America | 49% | 13% | -76% | 49% | 41% | 56% | 55% | 48% | 43% | 3% | 23% | 60% | -27% | 94% |
| MSCI Europe | 44% | 11% | -58% | 47% | 29% | 53% | 49% | 48% | 48% | 6% | 19% | 57% | -21% | 90% |
| MSCI Pacific | 25% | -1% | -56% | 43% | 31% | 42% | 44% | 34% | 27% | -3% | -6% | 43% | -4% | 73% |
| S&P500 | 48% | 13% | -76% | 48% | 41% | 56% | 55% | 48% | 44% | 2% | 23% | 59% | -27% | 94% |
| Russel 2000 | -9% | 1% | 5% | 4% | -3% | 0% | 1% | -1% | -8% | -1% | -12% | -6% | 3% | -2% |

Figure 6: Correlation between hedge fund strategies and equity indices. Source: based on CSFB/Tremont

ager to smooth the volatility of returns. Information that creates fluctuations in traditional assets may affect the self-reported NAV with a delay, with damped effect or not at all. Consider, for example, the events following September 11. What most market actors would describe as a market crash followed by a threatening lack of liquidity was simply ignored by hedge funds - because it happened in the middle of a month, that is, between two NAV computations.

Third, volatility, that is, portfolio standard deviation, is a useful performance measure when returns are more or less (log) normally distributed. Then ideas like confidence intervals around the mean can capture likely outcomes. Because of the kind of investment strategies followed, hedge fund returns are not normally distributed. Low measured volatility does not necessarily imply low risk because hedge funds often behave differently in up and down markets. This asymmetry will not be captured adequately by the (symmetric) volatility measure. Investors, who are more concerned by the risk of loss than by the risk of achieving very large returns, need a much more sophisticated set of measurements.

Fourth, volatility must be estimated from past outcomes. This is of course true for the world of liquid securities as well. There

we use it because funds typically follow consistent strategies over time. Hedge fund managers tend to follow very dynamic investment strategies and past volatility cannot be blindly assumed to be a good guide to future volatility.

These seemingly theoretical points are very clear to market professionals. A better estimate of the underlying risk of hedge funds emerges from the implied volatility of options written on funds of hedge funds. Although the fund of hedge funds index has a volatility of 5-8%, the implied volatility of the option is 2 to 3 times higher.

Diversification benefits

The hedge fund salesman shows you the efficient frontier with and without hedge funds, and says that because hedge funds have a low correlation with liquid assets, you can achieve better risk/return tradeoffs by including hedge funds in your portfolio. The correlation between reported overall hedge fund performance measures and indices of liquid asset returns has certainly been low for some hedge fund strategies. However, it is not low for all of them.

Figure 6 shows that the CSFB/Tremont index has significant correlation with the main international equity indices. Still, the

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| | Breakdown of style (source TASS)* | Correlation to MSCI (Jan 1994 - March 2003) / monthly data | Period 1 (Correlation to MSCI (Jan 1994 - Dec 1996) / monthly data) | Period 2 (Correlation to MSCI (Jan 1997 - Dec 1999) / monthly data) | Period 3 (Correlation to MSCI (Jan 2000 - March 2003) / monthly data) |
|-----------------------|-----------------------------------|--|---|---|---|
| Convertible Arbitrage | 5.50% | 11% | 22% | 23% | 11% |
| Ded Short Bias | 0.40% | -74% | -57% | -82% | -78% |
| Emerging Markets | 3% | 53% | 29% | 71% | 65% |
| Equity Mkt Ntrl | 6% | 39% | 25% | 61% | 29% |
| Event Driven | 19% | 58% | 56% | 72% | 46% |
| Distressed | 19% | 57% | 69% | 70% | 37% |
| E.D. Multi-Strategy | 19% | 51% | 19% | 70% | 47% |
| Risk Arbitrage | 19% | 45% | -3% | 64% | 34% |
| Fixed Inc Arb | 5.60% | 2% | 28% | 5% | -13% |
| Global Macro | 8.50% | 18% | 35% | 27% | -2% |
| Long/Short | 49% | 62% | 62% | 80% | 35% |
| Managed Futures | 3% | -22% | 15% | -6% | -51% |
| FundCSFB/Tremont | 100% | 47% | 45% | 60% | 33% |
| Hedge Fund Index | | | | | |

Figure 7: Correlation between hedge fund strategies and equity indices*. Source: Based on CSFB/Tremont

* These correlation figures can be unstable over time because HF managers adopt different strategies over time. The benefit of incorporating hedge funds in a portfolio is, thus highly dependant on the existing investor portfolio.

correlation is far from 100%. So, theoretically, hedge fund investments can generate better diversification for investors. But, even neglecting our points above about the validity of financial volatility measures for hedge funds, this is all in the realm of theory. Because an investor cannot invest in some abstract or notional hedge fund index, the only relevant diversification benefits are those attainable from style investing or fund-of-fund investing. Figure 7 shows that there appears to be significant correlation between some hedge fund styles and liquid investments. In particular, we can see that some hedge fund styles are highly correlated (correlation >50%) with financial markets and these hedge funds represent up to 70% of the funds entered in the TASS database. Only a limited number of strategies appear to be essentially uncorrelated with the markets (convertible arbitrage, fixed income arbitrage, global macro, managed futures). Perhaps by coincidence, perhaps not, the majority of good funds in these areas are already closed to new investors.

Most of today's hedge fund population consists of Long/Short funds. A significant fraction of these funds are highly correlated with financial markets and, thus, would not add a substantial diversification benefit to an investor's portfolio.

Liquidity

At last, a true claim. The liquidity of hedge funds is almost always significantly less than that of any kind of tradable asset fund and in some cases, approaches the illiquidity of other alternative asset classes. However, redemption periods for most hedge funds and funds of hedge funds are between 1 and 3 months. This indeed makes hedge funds more liquid than such alternative investments as private equity and real estate.

| Age of fund | Range of estimation for returns | | Range of estimation for survivorship bias | | Range of estimation for return including survivorship bias | |
|-------------|---------------------------------|--------|---|-------|--|--------|
| | Low | High | Low | High | Low | High |
| 1 | 22.40% | 23.80% | 0.90% | 2.90% | 19.50% | 22.90% |
| 2 | 18.25% | 18.70% | 1.60% | 2.60% | 15.65% | 17.10% |
| 3 | 17.37% | 18.90% | 1.70% | 2.00% | 15.37% | 17.20% |
| 4 | 16.80% | 17.39% | 1.40% | 1.50% | 15.30% | 15.99% |
| 5 | 13.30% | 14.59% | 1.10% | 1.20% | 12.10% | 13.49% |
| 6 | 14.50% | 15.61% | 0.90% | 0.90% | 13.60% | 14.71% |
| 7 | 13.10% | 15.34% | 0.50% | 0.70% | 12.40% | 14.84% |

Figure 8: Estimation of survivorship biases. Source: Lazard (2001) and Cross Border Capital

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In summary, we may say the following. Overall, hedge funds do have some of the benefits claimed for them, though not as many as a typical sales document would suggest. But what is overwhelmingly clear is that the specific choice of the fund/manager is more important than any of these conceptual benefits.

What to invest in

Because the choice of manager is the most critical one, and because of the very wide variation in manager performance, as with other assets a very important tool in managing risk is diversification across a significant number of apparently well managed hedge funds.

How easy is it then to invest in a significant number of well managed hedge funds? These are funds run on a reasonable scale by experienced managers who have been through some market cycles and events and have shown that they can handle difficulties and manage the tough operational issues of the business. (The argument is the same at one remove if the investor invests in funds-of-funds). New and young hedge funds are most likely to go out of business. Figure 8 gives an estimation of the performance and of the survivorship bias.

The problem, of course, is that well-established hedge funds with reasonable scale and good track records are closed to new money. In essence, the key drivers of the attractive return history and reputation of hedge funds are not accessible even to the typical wealthy investor, who must buy into relatively new and untried managers.

The new managers have not managed an independent fund before, nor have they managed people in a small, entrepreneurial organization. They tend to come from larger businesses where risk management and tracking, record-keeping, position-keeping, credit approval, and other logistical processes were done by others. In addition to being untried hedge managers, they represent significant operational risk relative to more established players.

Here is more to think about. New hedge fund managers are often refugees from the trading operations of banks and brokers. Many of these institutions have converted their proprietary trading operations into publicly accessible hedge funds, so that the funds trade with investors' capital and not that of the bank.

If hedge funds are such a wonderful investment, why have the banks done this?

Bank risk managers have increasingly concluded that these trading activities are not the best use of the risk capital of the bank. They have also been troubled by the outsize compensation demands from proprietary traders. In essence, the availability of investor capital and an infrastructure of prime brokers handling many operational details of hedge funds have combined to break the banks' historic monopoly on proprietary trading. The influx of independent proprietary traders in the hedge fund industry has driven down the returns and increased the risk of the trading strategies being followed.

As a result, the available market represents greater market risk and operational risk than implied by the publicized performance numbers of the hedge fund industry. It requires correspondingly greater skill to evaluate.

How to structure hedge fund investments?

Investors should invest in good hedge funds. Industry professionals will tell you that a good fund is at least 3 years old, has consistently returned good performance, and is of viable size. As the hedge fund industry has evolved, the number of funds has increased and the number that both meets this profile and remain open to new investors has fallen.

An investor has two choices:

- Invest with a fund of hedge funds advisor, appealing if the advisor will give access to closed funds, will provide skilled advice, and has conducted in-depth due diligence on the funds. These services come at a price. In addition to the management and performance fees of the hedge funds, the investor will also pay management and performance fees to

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the advisor. In addition, redeeming from a fund of hedge funds is sometimes associated with an exit penalty (redemption fee).

- Invest in hedge fund manager(s) directly. This is cheaper in terms of monetary costs but necessitates in-depth due diligence by the investor.

Choosing either a hedge fund or a fund of hedge funds involves hard work. Due diligence questionnaires typically contain more than 300 questions on strategy, compliance issues, etc.

The risks under scrutiny are the same as those analyzed by risk managers in other financial firms making trading decisions:

- **Strategy risk** - Inadequate formulation/application of a strategy.
- **Market risk** - Change in a market variable. Can have a direct or an indirect effect.
- **Credit risk** - Default by a counterparty.
- **Operational risk** - People, process, management, or system failures; model risk; legal; external; or compliance failure, etc..
- **Liquidity/treasury risk** - Ability to convert into cash.

Moreover, the management team of a hedge fund is typically very small relative to that of any other type of financial institution. Hedge funds outsource as much as possible, so a risk analysis must also cover the agents that service the hedge fund, the prime brokers, and other transaction and reporting organizations.

Due diligence

As they say in another context, there is no substitute for diet and exercise. Facing a small investment operation composed of a limited number of personnel supporting a few managers, an investor must be very comfortable with how the managers deal with risk. We give the due diligence issues in their order of importance.

- **Incentives** - Has the manager invested a significant

fraction of his personal fortune in the fund? If not, do not invest!

- **Follow-the-smart-money-in principle** - Have the very rich and famous already invested in the fund? If so, this is a good sign.
- **Risk control well in hand** - Has the manager set up an independent risk control function in the back office? If not, corporate governance and compliance problems can occur, there are potential risks of fraud, wrong NAV computations, model risks, breach of limits etc. Don't invest!
- **External validation** - Does an auditor regularly review the manager? Can we see a copy of the most recent report? If not, do not invest!
- **Management skills** - Has the manager managed people or a department in the past? If not, has an experienced COO been hired? If not, best keep away.
- **Truth in advertising** - Can we verify the references of the manager? Were effective background checks used in the selection of his staff? If not, forget it.
- **Apparent performance** - Can the manager provide a back testing analysis of what the performance has (would have²) been in the past? If not, do you have the courage to invest in untried ideas?

Unfortunately, there is more. You can not sleep well at night once the investment is made. Things might go wrong, and you have to monitor activity very frequently. Once again, here are the considerations:

- **Incentives** - Is the manager re-investing a significant fraction of his personal profits in the fund? If not, clear out!
- **Follow-the-smart-money-out principle** - If the very rich and famous are pulling out, follow them immediately.
- **Management skills** - If there is a turnover in the number of employees in the fund, consider clearing out immediately.
- **Consistency of activity** - If the manager enters investment areas outside his original demonstrated skill, ask why these should prove profitable. If the answer does not sound too convincing, say goodbye.
- **Performance record** - There is some evidence in the available

² Would have been - if it is a young manager.

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record that top quintile and bottom quintile performance tend to persist. Draw your own conclusions from this.

In summary, monitoring direct hedge fund investments is just as complex as selecting them. It requires not only data and modeling skills but good connections in the hedge fund world to get early notice of the rats abandoning the ship. If you can not do this, do not invest directly.

Selecting a fund of hedge funds advisor

A hedge fund will not answer the above questions for an investor, unless that investor has a lot of money (or the manager is new and desperate, an answer in itself). For most investors, it may be worth investing through a fund of funds advisor. The fees paid translate into such advantages as information access, saved time, professional assessment of funds, and ongoing oversight.

However, you must work out whether to trust the advisor! Sadly, the process of selecting a fund of funds advisor is similar to that for the selection of a hedge fund. An investor in a fund of funds must understand and evaluate the advisor's approach to fund selection, portfolio construction, and operational supervision.

Fund selection

- Does the advisor perform the individual fund due diligence process outlined above with adequate rigor? Does the advisor make sure that the performance of the hedge funds has been analyzed and that this performance is continuously monitored using risk models?
- Does the advisor provide access to otherwise desirable funds closed to new investment? An analysis of the average age of the portfolio of a fund of hedge funds will provide a good indication of its ability to enter into closed hedge funds.

Portfolio construction

- Does the fund of funds portfolio improve the risk return trade-off of the investor's existing portfolio? Who will do the analytical work to confirm this using real investor data?

- Are the advisor's limits on style allocation and on maximum investment per hedge fund likely to maintain the desirable risk characteristics?
- Is the fund adequately diversified across managers? Experience suggests that fewer than 20 funds constitute too little diversification and more than about 30 become unmanageable.

Operational supervision

- Does the fund of hedge funds manager check the reported fees and NAVs? Administrators sometimes make mistakes.

If this is not enough, selecting a fund of hedge funds advisor is expensive with fees running up to 400 basis points. We believe it is still worth it. There is no free lunch. The whole issue is as complex as it is because the strategies are dynamic and unorthodox and the opportunities to benefit from these things can be substantial. As can be the losses. If you can not put in the time, do not make the investment.

Conclusion

Some hedge fund strategies are excellent for diversification and for excellent return. But the main driver is the specific manager, not the strategy. If you can not evaluate the manager, then this is not an investment strategy that you should pursue. And evaluating the manager involves much more than reading offering documents or listening to a charming salesman.

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