NAPF

Hedge funds and funds of hedge funds made simple

What a trustee needs to know

March 2005

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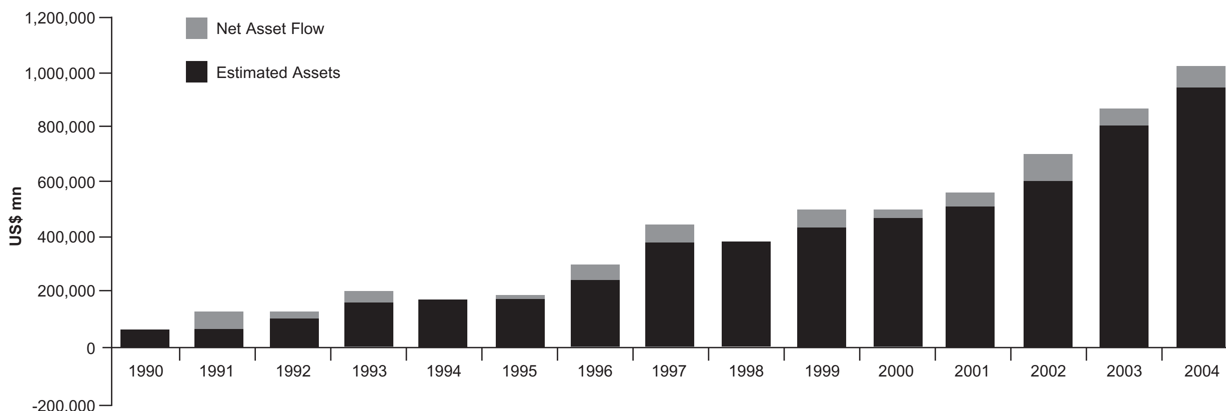
Introduction

UK pension funds currently invest only a small proportion of their assets in hedge funds – estimated to represent less than 2-3% of total investments[1]. Hedge fund investing continues to provoke a mixed response among pension schemes but is, nonetheless, an area of growing interest. Recent reports state that the clients of two leading UK consultant firms invested £1.7 billion in hedge funds in 2004, representing a quadrupling of allocations[2]. There is general agreement that this trend is set to continue.

The NAPF has produced this booklet to provide trustees with a simple guide to the nature and purpose of hedge funds and their role in pensions management. It explores the different hedge fund strategies available and highlights both the benefits and challenges of investing in hedge funds (both direct and via fund of funds). For additional explanations of the most common terms, readers should refer to the glossary at the end of the guide.

The hedge fund industry today

It is estimated that around US$1 trillion is currently invested in more than 7,000 hedge funds around the world[3]. The most developed market has been in the US, but rapid expansion of European-based funds over the last few years has brought the number in Europe to more than 700[3], with the majority of them based in London.



Source: Hedge Fund Research Industry Report, December 2004

The growing popularity of hedge funds is in part a response to the challenging market environment of recent years. This has driven investors to seek exposure to a more diverse set of asset classes. For pension funds, the invigorated focus on liability-matching has led them to embrace investment strategies which achieve required returns while managing overall portfolio risk.

Investments which exhibit low (and in some cases zero) correlation to traditional asset classes, such as equities and bonds, as well as target an absolute return, are therefore an attractive combination. As one of the investment options that fits this description, an allocation to hedge funds is increasingly being considered.

[1] Goldman Sachs

[2] Financial News, February 2005

[3] HFR Industry Report (4Q04 Total Strategy Assets by Percent).

However, while some hedge funds have historically produced high absolute returns, there have been cases in which substantial losses have occurred. The enormous dispersion in quality and returns of hedge fund managers reinforces the importance of skilful manager selection and due diligence. For this, trustees can seek the expertise of skilled investment professionals.

What is a hedge fund?

Hedge funds are essentially asset managers, charged with investing their clients' money with the aim of achieving some pre-agreed return. Like most asset managers, hedge funds invest in public markets for their clients, which means they buy and sell the four main asset classes: equities, bonds, currencies and commodities. We have set out an illustrative explanation of what a hedge fund is below:

A hedge fund is…

An asset manager	That is less constrained than traditional investment manager
Accessing the same markets as others	Investing in *their* choice of equities, fixed income, currencies and commodities
But is unconstrained	Can use leverage, short selling and derivatives without a benchmark constraint
And is incentivised	Relates compensation directly to performance
To be a skill based investor	Allowing investors to access some of the best talent in money management

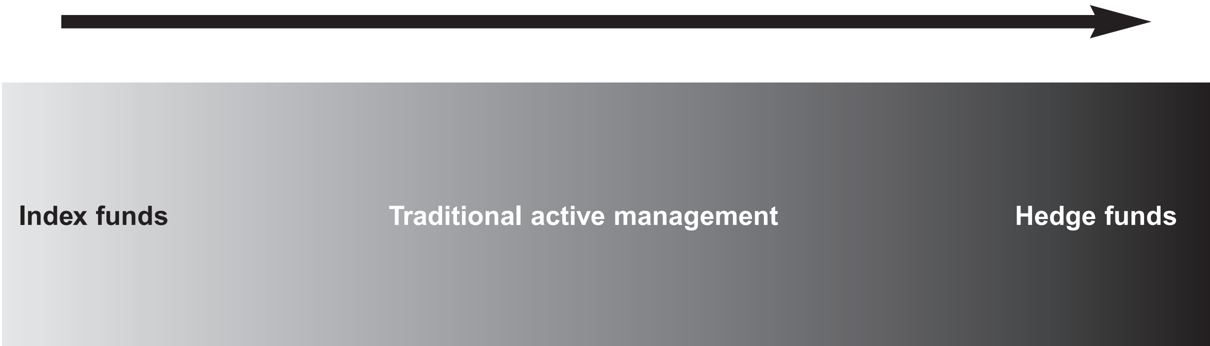
Where hedge funds differ is that they do not face many of the constraints that traditional asset managers do. Most asset managers have strict guidelines regarding what investments they may make, what level of cash holdings they may have, and the way in which they can trade. Hedge funds meanwhile do not follow benchmarks, may borrow money (use leverage) to invest, sell securities short and use financial contracts (known as derivatives) to express views or manage risk. The unconstrained nature of the environment in which they operate means that individual hedge funds can pursue very different strategies.

Which means that hedge funds…

Have different return drivers	Can give exposure to different returns than those behind traditional asset classes
And pursue many different strategies	Hedge funds comprise a large and growing set of strategies
In a more lightly regulated environment	Require a higher level of initial due diligence and ongoing monitoring than traditional managers
And may perform differently	Hedge funds offer different return distributions from traditional managers
Offering diversification benefits	Generate returns with a low correlation to traditional strategies

In summary, a hedge fund is a highly active manager targeting absolute returns. The underlying philosophy of hedge fund investing is that the skill of the manager, rather than the return of the market, is the key determinant of how they will perform.

Hedge funds on the active risk spectrum



So, in effect, an allocation to hedge funds is an investment in the skill of a set of asset managers. The ability to evaluate these skills is vital when deciding in which hedge funds to invest.

What investment strategies do hedge funds employ?

A common misconception is that hedge funds behave as a homogeneous group. This fails to recognise that the freedom which most hedge funds enjoy allows for an immense variety in the strategies they can follow and, by extension, in the way they perform. With a few exceptions, hedge funds can make investments in any stock, bond, commodity or other financial instrument in any part of the world.

As was noted at the outset, there are over 7,000 hedge funds around the world, which employ a wide range of strategies. One potential way of viewing the universe is to group the strategies into different sectors where common themes in performance can be identified, as set out below:

	Relative Value	Event Driven	Equity Long/Short	Tactical Trading
Strategies	Fixed Income Arbitrage	Risk Arbitrage	Diversified	Global Macro
	Convertible Arbitrage	High Yield/ Distressed Debt	Industry or Sector focused	Managed Futures
	Equity Market Neutral	Special Situations	Geographically focused	
	Multi-Strategy			

Each of these four sectors has its own return, volatility and correlation characteristics. The sectors and strategies are briefly explained below.

Relative Value

Relative Value managers seek to benefit mainly from mis-pricing of related assets and/or convergence between the mis-pricing of two assets. Market risk is reduced by balancing long and short exposure. Strategies in this sector include fixed income relative value, convertible bond arbitrage and equity market neutral. Each strategy attempts to exploit sources of return with low correlation to the general direction of the market.

- *Fixed Income Relative Value:* A strategy which aims to generate profit from price anomalies between related fixed income securities, including interest rate swaps, government bonds and mortgage backed securities.

- *Convertible Bond Arbitrage:* A convertible bond is a corporate bond that offers the option to be converted into the shares of the issuing corporation. Convertible Bond Arbitrage involves taking a long position on a convertible security while simultaneously selling short the underlying common stock and potentially hedging credit and interest rate risk. The aim is to isolate the cheap option within the convertible bond and benefit from trading profits and the appreciation in value.

- *Equity Market Neutral:* Equity Market Neutral managers develop views on stocks based on fundamental and/or technical analysis, ascertaining expected relationships between prices and valuations. They then structure trades (by taking long and short positions) to exploit any deviations from these expectations. Portfolios are designed to have zero or modest correlation with broad market indices.

Event Driven

Event Driven managers identify specific events such as bankruptcies, mergers or takeovers that have the potential to trigger significant change in valuations and seek to exploit the resulting investment opportunity. Strategies in this sector include risk arbitrage, high yield/distressed debt and special situations.

- *Risk Arbitrage:* Risk Arbitrage – or Merger Arbitrage – strategies seek to capture the price spread between the current market price of a security and its value upon successful completion of a takeover or merger transaction. The target company typically trades at a discount, factoring in the event risk that the takeover or merger will not happen. This offers an opportunity to skilful Risk Arbitrage managers.

- *High Yield/Distressed Debt:* High Yield/Distressed strategies seek to capitalise on opportunities in securities of firms in or near bankruptcy. Such opportunities may exist because of illiquidity (limited opportunities to sell), the existence of forced sellers (who have an urgent need for cash and therefore cannot wait for the best moment to sell) and the uncertainty of the restructuring process.

- *Special Situations:* Here, hedge fund managers take advantage of special situations such as spin-offs, recapitalisations, tender offers and other corporate restructurings. They seek to purchase securities at a substantial discount to fair value and profit as the market later recognises the fair value. Fair value is determined through extensive research.

Equity Long/Short

Equity Long/Short managers develop views on stocks, and “go long” on stocks they expect to outperform and sell short those stocks they believe will underperform or decline in price. Managers can further express conviction about their views by varying the amount of capital invested, and are able to express directional views on the underlying markets by adjusting the net long or short exposure of the portfolio. Most Equity Long/Short managers tend to have a long bias (and are therefore more correlated with the market), but short-biased managers do exist. Short-biased managers typically benefit in declining markets. Specialisations within the strategy are according to geography (e.g. Europe), industry (e.g. Technology), or style (e.g. Value).

Tactical Trading

Tactical Trading involves making timely top-down decisions on a variety of currency, commodity, equity or bond markets. The sector includes both global macro and managed futures strategies.

- *Global Macro:* Global Macro managers typically develop views on broad economic themes and then implement those views with a variety of instruments (for example, derivatives written on commodities or stock market indices).

- *Managed Futures:* Managed Futures managers trade across the same variety of markets but often use a quantitative approach. They can be categorised as either systematic or discretionary.

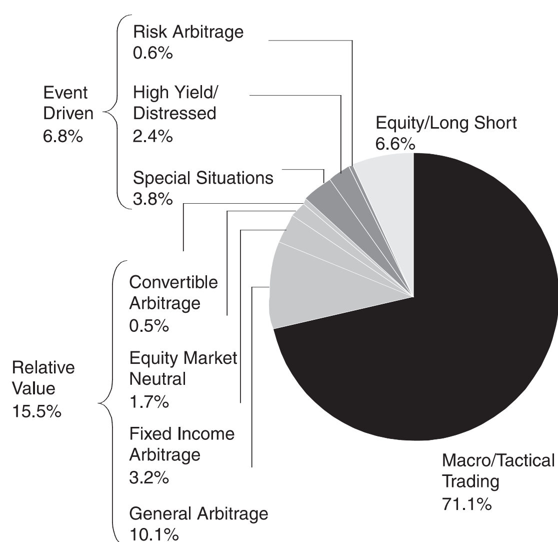
  - *Systematic trading:* Systematic traders use computer-generated models to identify trading opportunities, usually in the futures markets. The models identify trades and determine the size of positions and the precise timing of implementation. The majority of systematic traders follow trends in the markets.

  - *Discretionary trading:* The key difference between these funds and systematic trading is that the final investment decision is made by the fund manager. Profitable trades are identified based on research using computer systems or through fundamental analysis.

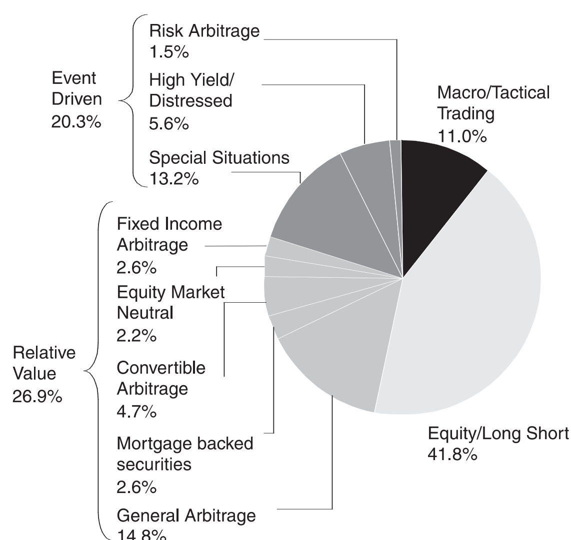
Evolution of hedge fund strategies

Hedge fund strategies continue to evolve as managers seize new investment opportunities and make use of innovative financial instruments. When a strategy or segment of a strategy continually fails to provide justifiable returns, it has to adapt or disappear. In 1990, tactical trading strategies dominated the hedge fund universe, making up over 70% of total assets. Today this figure is nearer 10%, with a more even spread across the other three sectors: diversification is a feature of the current landscape.

Strategy composition as of December 1990
US$67 bn (£35 bn)



Strategy composition as of December 2004
US$973 bn (£507 bn)



Source: Hedge Fund Research Industry Report, 31 December 2004. Exchange rate: USD/GBP 0.52086

Why should trustees consider an allocation to hedge funds?

Historically, high net worth investors have been the biggest proponents of hedge fund investing, but increasing numbers of institutional investors are allocating capital to hedge funds. Below, we expand on some of the reasons why making a hedge fund allocation can make sense, particularly for pension funds.

Attractive risk-adjusted returns

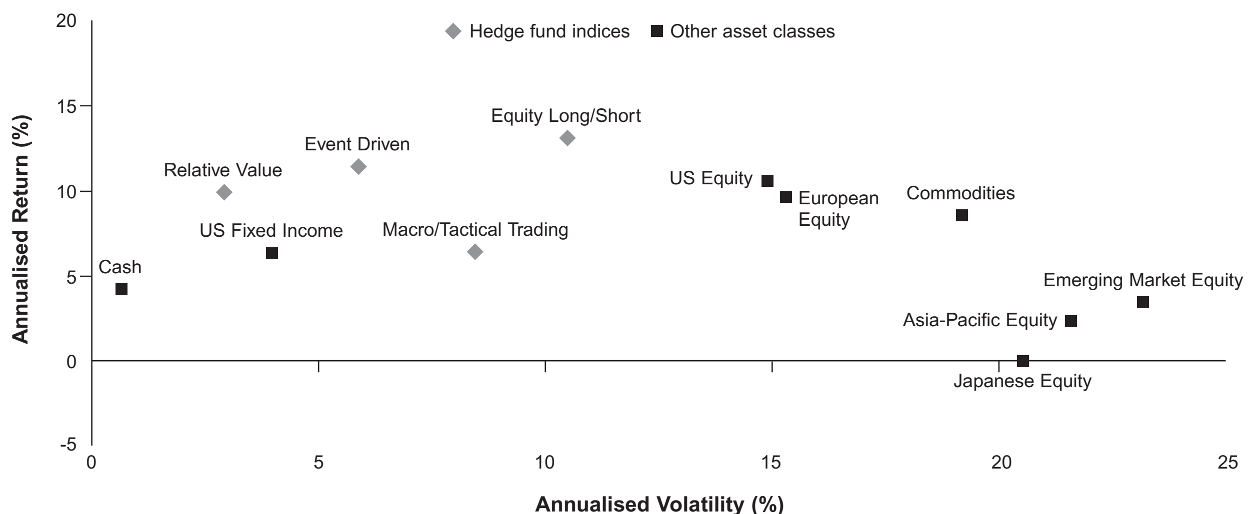
Hedge funds target absolute returns under a variety of conditions, including those in which traditional investments – equities and bonds – are depressed. Hedge fund managers claim that this is possible because of the flexibility they enjoy in balancing long and short holdings and freedom to use a range of instruments. For pension fund trustees, an even more important consideration is arguably that many hedge fund strategies have historically provided such returns at lower volatility levels than the stock market. This is illustrated in the exhibit below.

In general, hedge funds tend to measure and manage risk over much shorter time horizons and are less tolerant of losses than in traditional asset classes. Most hedge funds are conservatively run and place great emphasis on disciplined risk management procedures. Furthermore, it is common for hedge fund managers to invest a portion of their own capital in their portfolio, which is a strong indication that they do not want to take on any untoward risk.

The exhibit below summarises the risk and return characteristics displayed by different sectors and long-only indices over the last ten years.

Historical performance overview

Hedge fund indices vs. other asset classes (Jan-94 to Dec-04)



Source: CSFB Tremont, The Barclay Group and Bloomberg.
Past performance is not indicative of future results, which may vary.

Diversification benefits

Hedge funds offer investors the potential to build more return drivers into their portfolio. With a number of managers pursuing different strategies, it is likely that hedge fund investments will exhibit a low correlation to other traditional investments in the portfolio. This low correlation has the potential to reduce the overall risk in the portfolio.

Accessing manager skill

Hedge funds claim to have attracted some of the world's best investment professionals. They are motivated not only by the potential financial rewards, but they also enjoy working in a more entrepreneurial environment, with greater autonomy on investment decisions and the freedom to use a range of investment tools to implement their ideas.

Possible challenges trustees face when considering a hedge fund investment

Investors should be aware that there are risks to consider and obstacles to creating a sensibly diversified portfolio of hedge funds.

Risk

It is true that risk must be borne in order for there to be the potential for profit. Many investors use hedge funds to gain access to "active" risk – i.e. manager skill. However, there are some areas of risk which are not desirable. As with any investment, it is imperative that trustees consider all associated risks, including:

- *Infrastructure:* most funds are run as small boutiques and rely on external service providers for many operational areas such as administration. Investors are not compensated for taking on operational risk, so it is essential that they perform thorough due diligence in order to minimise this before investing. Due diligence is best performed by skilled investment professionals; for this reason, many pension schemes have chosen to invest in hedge funds via a fund of funds manager.

- *Personnel:* because hedge funds are generally managed by individuals or relatively small teams, changes in key personnel, sickness or personal problems may severely affect performance.

- *Investment and risk management processes:* efficient and effective processes are critical to successful hedge fund performance, and the consequences of a breakdown or a change in approach can be severe. Ongoing monitoring should alert investors to any potential problems in this area. Trustees may choose to use skilled investment professionals to conduct the monitoring.

Capacity constraints

Most hedge fund managers do not want to compromise performance through market impact and liquidity concerns. In order to maximise potential returns, many stop accepting new capital once they reach a certain level of assets, preferring to have a limited amount of assets to manage. Many of the largest and most successful hedge funds are now closed to new investment for this reason. Provided investors select and access skilful hedge fund managers, this can be viewed as an opportunity rather than a challenge.

Liquidity

Hedge funds must have sufficient flexibility to capture investment opportunities that arise at the most advantageous time, and therefore some funds impose lock-up periods. The liquidity terms themselves generally depend on the strategy employed, but an initial lock-up period of up to one year is common, with monthly or bi-annual liquidity thereafter. Trustees must recognise the longer time horizon of hedge fund investing.

Transparency

Some hedge fund strategies are extremely complex and managers can be reluctant to reveal details of their investment process and portfolio positions as it might limit their competitive edge. Again, this will depend on the strategy of the hedge fund.

Fees

In addition to normal management fees, hedge fund managers are normally rewarded by performance fees. Typical management fees are 1-2% of invested assets, and performance fees are typically about 20% of realised returns.

Minimum investment

Hedge fund managers' minimum level of investment can vary substantially. In general, however, institutional investors may be expected to make an initial investment of something in the region of £500,000.

Implementing a hedge fund investment

There are two ways to gain access to hedge funds: investing directly in individual hedge funds and allocating capital to a fund of hedge funds.

Direct investment

In view of the complexity of strategies employed, and lack of transparency and accessibility, evaluating and selecting a hedge fund manager can be extremely difficult. Trustees need to take into account these hedge-fund specific factors, in addition to taking the usual steps to select a manager for a conventional asset class:

- *Establish objectives:* Before beginning the search for a fund manager, trustees need to establish their objectives – returns, risk, correlation – in incorporating hedge fund investments into their portfolio, and to set a target for expected performance improvement, or risk reduction. This is the stage to assess which balance of hedge fund strategies might meet these objectives.

- *Identify the best managers:* The next crucial step is to identify the best managers within the target strategies, paying particular attention to the managers' investment and risk management processes. The confidence hedge fund managers place in their own methodology can often be measured by the proportion of their own capital invested. The quality and reputation of the organisation, the extent of resources and the experience and skill of key personnel are all important issues which trustees need to address. It is advisable to meet potential hedge fund managers in person before committing an investment.

- *Study the manager's track record:* A proven track record is important, but with hedge funds this is not always available in "audited" form. Investors should look for evidence that the manager has previous expertise in a particular strategy.-

- *Monitor the manager:* Hedge fund investment requires close and ongoing monitoring to ensure that the managers are adhering to their articulated processes, and that the investor understands these processes and is aware of any personnel changes. The objective is to identify early any factors which could either cause future underperformance or lead to an increase in unacceptable risk.

Fund of hedge funds investment

A fund of hedge funds is a collective investment vehicle that invests in a number of underlying hedge funds. Dedicated investment professionals are responsible for evaluating hedge fund strategies, identifying and selecting skilled managers and performing due diligence and ongoing monitoring.

Fund of funds arrangements aim to offer investors diversification across manager styles as well as hedge fund sectors, and hence a lower degree of risk. They are often regarded as the most appropriate structure for those investing in hedge funds for the first time, but they are also adopted by many seasoned investors, for a number of reasons:

- Investors may not want to commit the significant resources needed to manage an entire fund of hedge funds programme effectively. Fund of funds programmes generally have lower minimum investment levels.

- Manager selection, due diligence and ongoing monitoring are performed by dedicated investment professionals with the requisite experience and resource to do so.
- Fund of funds may have a capacity agreement in place with certain hedge fund managers, enabling access to those that are otherwise closed.
- Fund of funds managers are often able to negotiate greater transparency with individual hedge funds, sometimes by way of separately managed accounts.
- Fund of hedge funds are sometimes able to negotiate greater levels of liquidity with direct funds than individual investors can. This can result in more dynamic portfolio management than would otherwise be achieved, to the ultimate benefit of the investor.

However, it must be appreciated that employing a fund of funds brings an extra layer of fees. A fund of hedge funds will typically charge an additional 1% management fee and 5-10% performance fee. The process for selecting a fund of funds manager should be no less rigorous than with any investment decision.

What are my responsibilities as a trustee?

Trustees aim to act in the best interests of scheme members and ensure that adequate assets are accumulated to meet the scheme's liabilities. In considering a hedge fund investment, trustees should follow a step-by-step approach, working closely with the scheme's investment advisers. For example:

- Ask the scheme's investment advisers whether or not they recommend that a portion of the scheme's assets should be allocated to hedge funds.

- Examine and assess carefully the benefits (after cost) and disadvantages of this type of investment in the light of the needs and circumstances of the scheme.

- Decide what proportion of the scheme's assets are to be invested in hedge funds, and in which sectors. A typical initial allocation to hedge funds by institutional investors is in the range of 2-5%; however, some pension schemes have recently allocated as much as 10-15% of their portfolio.

- Decide which strategies within the hedge fund universe are appropriate for the investment portfolio, and whether a direct allocation to hedge funds or an investment through a fund of funds is more appropriate. Strategy allocations can be constructed to align with the scheme's existing portfolio, to minimise correlation and ensure appropriate diversification.

- Engage investment managers with suitable experience and a proven track record. Consideration should also be given to custody and valuation issues.

- When appointing a hedge fund manager, trustees should comply with their statutory investment responsibilities (Pensions Act 1995 ss34 to 36). In particular, they should take all reasonable steps to satisfy themselves as to the fund manager's competence, knowledge and experience.

- Trustees should ensure that the hedge fund manager or managers they select, if required, are FSA registered or, if investing in a US-based hedge fund, they should ensure that the manager is registered with the Securities and Exchange Commission (SEC).

Glossary of terms

General hedge fund terminology

Going long

"Going long" an asset indicates that an investor believes that the value of it is going to increase within a certain time period, and therefore buys the security. Traditional investment strategies only hold long positions in securities while hedge funds are able to go both long and short within the same portfolio.

Going short

"Going short", or "shorting", involves borrowing an asset that is deemed overvalued from its owner and selling it directly on in the market, in anticipation that the asset's price will fall. This enables the investor to buy the security back at a lower price later, return it to the lender and keep the difference in price as profit (after deducting borrowing fees). This is one of the ways equity long/short managers make money; it facilitates profit creation even when stock prices are falling.

Hedge

(Not necessarily something done by all hedge funds!) An investment made to reduce the risk of adverse fluctuations in the price of securities by offsetting positions. For example, a manager who holds a lot of long equity positions might hedge their position by selling equity index futures. That way the investor will make money regardless of whether equity markets go up or down.

Leverage

The practice of borrowing to invest, also known as "gearing". Leverage will increase the potential returns from any investment but also the losses, and hence will generally increase risk. Many hedge fund managers use gearing to amplify their returns. For example, if a manager invested £200, of which half was borrowed (2 x levered), and made a return on that of £20, or 10%, the actual return would be 20% (i.e. 20/100), ignoring the cost of borrowing. Some strategies inherently involve greater leverage than others, such as futures trading.

Exposure

There are various terms to indicate the exposure of a hedge fund portfolio, based on the balance of long and short positions.

Exhibit 1: calculating a manager's exposure

$$\text{Long Exposure} = \frac{\text{Long positions}}{\text{Fund equity}} \qquad \text{Short Exposure} = \frac{\text{Short positions}}{\text{Fund equity}}$$

$$\text{Net Exposure} = \frac{\text{Long - short positions}}{\text{Fund equity}} \qquad \text{Gross Exposure} = \frac{\text{Long + short positions}}{\text{Fund equity}}$$

Arbitrage

Arbitrage is an economic term that refers to the simultaneous buying and selling of securities in different markets in order to take advantage of differing prices for the same or related assets.

Liquidity and fee terms

Lock-up

The period of time in which investors are prohibited from redeeming their initial investment in a fund.

Hurdle rate

The rate of return above which a manager starts accepting incentive (performance) fees. For example, if the hurdle rate is 10% and the manager returns 13% that year, the investors will only pay an incentive fee on 3% of the performance.

Management fee

The minimum fee that investors must pay, irrespective of fund performance. The management fee is calculated as a percentage of assets under management and is usually paid annually.

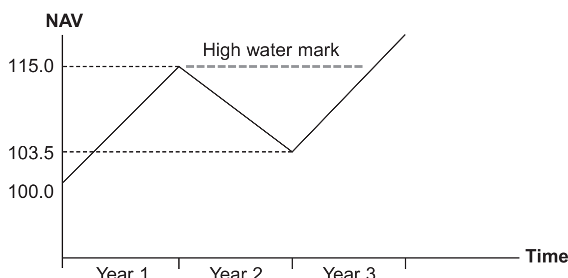
Incentive fee (performance fee)

The fee that investors pay for performance, calculated as a percentage of all additional performance (above the hurdle rate, if any) generated in a period.

High water mark

The purpose of a high water mark is to ensure that, where a fund charges a performance fee, investors only pay for performance in which they have participated.
By way of illustration, let’s take a £100m investment in a fund which charges a performance fee. If performance is positive in year one (assume the Net Asset Value (NAV) of the fund goes up 15%, to 115), the investor would pay performance fees based on this. If the fund goes on to lose money in year two (assume it goes down 10%, to 103.5), the investor would clearly not pay performance fees as performance has been negative.
The high watermark becomes important in subsequent years, should the fund experience positive performance. Imagine that in year three, the NAV of the fund goes back up to 115. Given that the investor has previously “paid” to get to 115, they cannot justifiably be asked to pay for recapturing the lost ground from 103.5 back to 115. This means the client would pay no performance fee in year three and would only begin paying performance fees again once the NAV goes above 115.

Note that an investor who invested at the start of year three would pay a full performance fee on the returns that brought the fund from 103.5 to 115.



Risk and return terms

Absolute return

Absolute return refers to the return a manager makes irrespective of any benchmark or index. Hedge fund managers always communicate absolute rather than relative return targets.

Annualised mean return

Mean is a simple average return (arithmetic mean) which is calculated by summing the returns for each period and dividing the total by the number of periods. This does not take the compounding effect of investment returns into account. The annualised mean is equal to the monthly mean multiplied by 12.

Alpha

Alpha is a measure of the “skill-based” return – i.e. “active” return – an investor can add over and above the return a portfolio would be expected to make based on its sensitivity to the market, or “beta”. Alpha is calculated as the return on the portfolio minus the return on a benchmark. Hedge fund managers measure their investment skill by quantifying their generation of alpha.

Beta

Beta is a measure of the systematic risk within an investment. It is a relative measure, and hence can be used to compare investments’ sensitivity to market fluctuations. A positive beta suggests a security will move in the same direction as the market, whereas a negative beta indicates movement in the opposite direction. For example, if a security has a beta of +1, it indicates that if the market rose by 5% the security’s value would also rise by 5%; conversely, the value of a security with a beta of -1 would fall by 5%.

Active risk

Residual risk that is uncorrelated with the market. For example, if a portfolio has a beta of 1.2 and the market return is 3%, the expected portfolio return would be the beta multiplied by the market return, or 3.6%. However, if the actual portfolio return is 4.7%, the residual return would be 1.1%. This residual component is not correlated with the market and is known as “active” risk. With traditional, actively managed, investment portfolios there is a combination of active and passive risk, with the bulk of the risk (and consequently the return) being “passive” and delivered by the index or asset class. Hedge funds tend to adopt active risk.

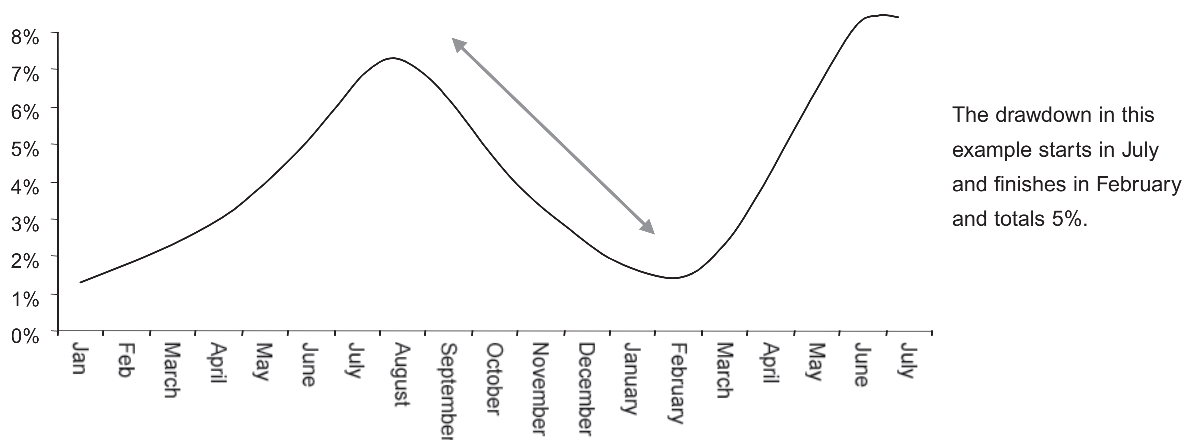
Passive risk

The variability of an investment’s returns that can be explained by general market fluctuations. Passive risk is caused by external factors such as interest rates, inflation and investor sentiment and therefore cannot be diversified away via security selection.

Drawdown

A period in which an investment exhibits negative returns. The drawdown is measured as the total distance from peak to trough of performance, as shown in Exhibit 2:

Exhibit 2: Illustration of a drawdown



Average state of drawdown

The average state of drawdown (ASOD) is a measure of an investment’s frequency and depth of draw down. To calculate ASOD, monthly measurements are made of the current cumulative decline from the latest peak. (A measurement of zero would occur if the asset is not in decline from a peak.) The arithmetic average of the monthly measurements is the ASOD.

Volatility

A measure of an investment’s propensity to rise or fall in value over a specified time period. Volatility is used as an indication of risk and, with hedge funds, is most commonly measured as standard deviation.

Annualised standard deviation

Standard deviation measures the variation of a data series around the mean. In the investment context, the standard deviation measures the variation in returns around the mean return. The more volatile an investment, the higher its standard deviation will be and, as such, it is often used as a measure of investment risk. Annualised standard deviation is equal to the monthly standard deviation multiplied by the square root of 12.

Statistical / dispersion terms

Correlation

Correlation measures the strength of the relationship between two variables, such as the relationship between the performance of two assets. It is a relative measure that indicates how one variable moves in relation to another one. Correlation values can be anywhere between -1 (perfectly negatively related), 0 (not related) and 1 (perfectly positively related).

Two variables that are *positively* correlated (i.e. have a correlation greater than 0) will move up and down at the *same* time and by an amount that depends on how strong the correlation is (i.e. how close it is to 1). The stronger the relation, the closer the correlation is to 1. An example could be that the stock price of a company is positively correlated with its profits.

Two variables that are *negatively* correlated (i.e. have a correlation between -1 and 0) will move in *opposite* directions. For example, it is often said that stock prices are negatively correlated to bond prices; i.e. one asset class tends to perform well at times when the other performs poorly. The stronger this negative relationship, the closer the correlation is to -1.

One common misconception is that a *low* correlation means an inverse relationship between two variables. If two variables have zero or very low correlation, one variable's value will change in a *completely unrelated* way to the other variable's value. Hedge fund returns typically have a very low correlation to traditional asset classes: this does not mean they move in opposite directions, simply that changes in their values follow different patterns to those of traditional assets. This can be explained by the fact that hedge fund performance is typically determined by different factors than those that drive traditional asset performance in an investor's portfolio.

Sharpe ratio

A return/risk measure developed by William Sharpe. It is used to establish portfolio efficiency and measures the expected excess annual return in a portfolio above that of the risk-free rate. Return (numerator) is defined as the incremental average return of an investment over the risk free rate. Risk (denominator) is defined as the standard deviation of the investment returns.

Sortino ratio

This is an alternative return/risk ratio developed by Frank Sortino. Return (numerator) is defined as the incremental average return of an investment over the risk free rate. Risk (denominator) is defined as the Downside Deviation. (The downside deviation is similar to the standard deviation but takes into account only returns that fall below the Minimum Acceptable Return (MAR).)

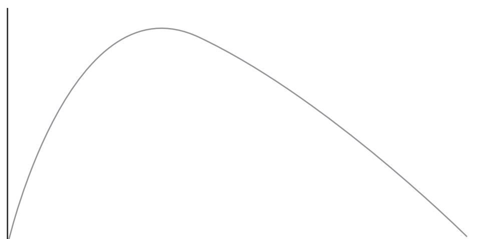
Information ratio

The information ratio measures the efficiency with which a manager turns active risk into active return. It is calculated as active return, or alpha, divided by active risk.

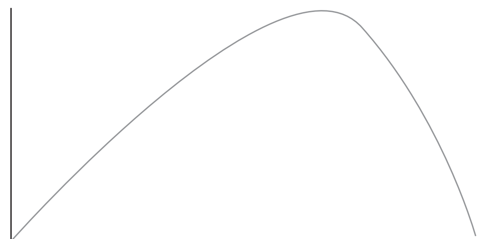
Skewness

Skewness characterises the degree of asymmetry of a distribution around its mean and is used to illustrate the range of hedge fund returns across the universe, or within a particular strategy. Hedge fund returns are usually skewed (as opposed to normally distributed), indicating a number of extreme losses or extreme successes. The extent and direction of skew is dependent on the hedge fund strategy. Positive skewness indicates a distribution with an asymmetric tail extending toward more positive values. Negative skewness indicates a distribution with an asymmetric tail extending toward more negative values. Exhibit 3 demonstrates this.

Exhibit 3: Skew



Positive Skew
- low probability of extreme gains



Negative Skew
- low probability of extreme losses

Fat tails

Fat tails refer to the extreme values at either end of the range of returns. A skewed range of returns will have fat tails (see Exhibit 3).

Kurtosis

Kurtosis characterises the degree to which a distribution is peaked or flat, compared with the normal distribution. Positive kurtosis indicates a relatively peaked distribution with more observation in the tail. Negative kurtosis indicates a relatively flat distribution.

Characteristics of hedge funds – at a glance

Capacity	The majority of hedge fund managers limit the size of their fund at what they believe is an optimum level for efficient management. This protects the returns of existing investors, but also means that the most popular, best-in-class funds may be already closed.
Constraints	Hedge funds have fewer constraints on benchmark, short selling, leverage and traded instruments than traditional asset managers.
Correlation	Hedge fund returns typically have a low correlation to traditional asset class returns. As such, hedge funds can be attractive diversifiers to a portfolio.
Fees	Since the focus is on manager skill, performance fees are standard. This means that investor and hedge fund manager interests are more closely aligned, but fees tend to be higher than in traditional asset management.
Liquidity	Some hedge funds are less liquid than, for example, traditional long-only equity portfolios. Often this is because the value created in a portfolio depends on an anticipated event with regards to a security, or the anticipated performance between related securities. This means that investors must take a longer-term view on their investment and be comfortable to lock their money away for periods of time.
Manager skill	Manager skill is the predominant driver of return with hedge funds. While they have attracted some of the industry's best talent, thorough research and understanding of managers and their approach is key to a successful hedge fund investment.
Regulation	Hedge funds are less regulated than traditional investment products, which gives them more investment flexibility. It also means that consideration of all potential risks is paramount, prior to investing.
Transparency	Many managers are unwilling to disclose their investment ideas, which means that transparency can be lower than for traditional asset managers. Transparency levels vary by manager. It is therefore vital that investors have confidence in the skill of the manager they select.

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