

The Benefits of Hedge Funds & Managed Futures

A Research Article by Frontier Capital Management LLP
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This note presents an overview of Hedge Fund and Managed Futures asset classes, reviews their return and risk characteristics, and shows the benefit of their inclusion in traditional UK portfolios.

There has been significant investor interest over recent years in alternative investments and institutional investors, such as pension funds, have started to incorporate them into their portfolios. Increased institutionalisation and standards of control of the industry are now leading to opportunities for a wider range of investors to access alternative investments. This is being supported by the Financial Services Authority in the UK. Listed hedge fund of funds are available on the London stock exchange and the popular UK retail investment benchmark (the APCIMS) has included Hedge Funds alongside traditional Equities and Bonds.

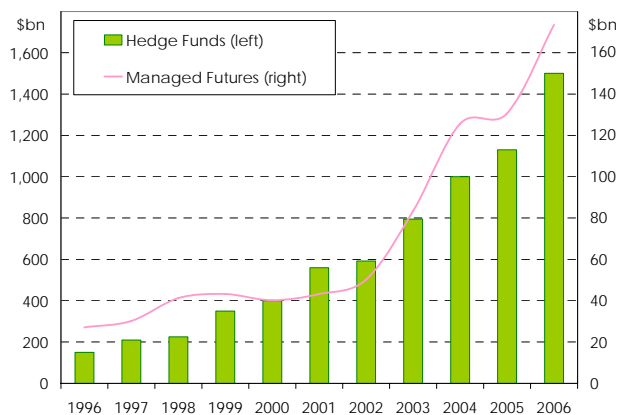
There are many misconceptions about Hedge Funds and Managed Futures, including that they are high risk investments. Although individual funds may display high levels of volatility, in general terms a key characteristic of Hedge Funds as an asset class are their low volatility; whilst the Managed Futures' asset class has a low level of correlation to traditional assets and tends to deliver positive performance during equity bear markets. With these characteristics the inclusion of Hedge Funds and Managed Futures into traditional portfolios has historically reduced portfolio volatility, provided downside protection and increased risk-adjusted returns.

Investors wishing to capture these asset class characteristics whilst minimising specific fund risk, should ensure that their exposure to the asset classes is as diversified as possible.

Hedge Funds and Managed Futures as Asset Classes

Increasing investor interest has resulted in a rapid increase in global Hedge Fund and Managed Futures assets (Figure 1). Since 1996 Hedge Fund assets under management have increased at an annualised rate of 26 per cent and Managed Futures of 21 per cent. The majority of alternative assets are invested in Hedge Funds, with over \$300 billion based in London alone.

Figure 1 – Global Assets¹



Source: International Financial Services London; CISDM; Frontier

¹ Managed Futures assets for 2006 are estimated by Frontier Capital Management.

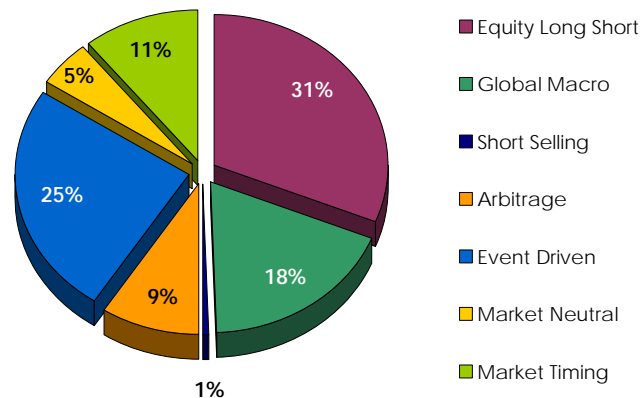
Strictly speaking Hedge Funds and Managed Futures are not asset classes in the same manner as Equities and Bonds. However, from a portfolio management and asset allocation perspective we will characterise them as “Asset Classes” due to their unique return, risk and correlation characteristics.

What are Hedge Funds?

There is no precise definition of what constitutes a Hedge Fund and this has helped create a number of misconceptions about them. We will define them here as: “*funds that manage a portfolio of securities and derivatives, can invest both “long” and “short”, and charge a performance fee.*”²

There are in fact many types of Hedge Funds defined by different investment strategies, each with distinct return and risk characteristics (see Figure 2 below and Appendix A for summary description). The most common type of strategy is equity long/short which constitutes approximately 30 per cent of all Hedge Funds.

Figure 2 – Hedge Fund Strategies



Source: Credit Suisse; Anson (2002); Frontier Capital Management

It is useful to contrast Hedge Funds to traditional mutual funds. Hedge Funds have historically been available to only accredited or sophisticated investors, use a wider range of strategies, use derivatives more frequently, have access to greater leverage, are less regulated, and tend to be focused on delivering absolute returns rather than performance relative to a benchmark. The ability to take “short” positions in securities or markets, means that these funds can make positive returns even in falling markets. This is a principal attraction of the asset class.

² Investing “long” means purchasing an asset and investing “short” means selling an asset without actually owning it.

What are Managed Futures?

Managed Futures refers to another set of investment funds which target absolute returns for investors.³ These funds trade futures contracts, predominately on currencies, financial assets and commodities. Investment into Managed Futures occurs through funds or individual accounts run by trading advisors. The majority of Managed Futures funds use trend-following strategies that are designed to capture the price movement of medium and long-term trends across a broad category of underlying instruments. These strategies will generally deliver positive returns to investors when the markets are rising or falling steadily in value.

Managed Futures is a diverse asset class as trading advisors have the ability to trade in over 150 different markets. Moreover, nearly all funds and individual accounts use multiple trading advisors. As a result of this diverse coverage and their trading strategies, this asset class has historically exhibited low volatility, low correlation to traditional asset classes, and positive returns during falling equity markets.

Hedge Fund and Managed Futures Data

A common criticism of published performance data for Hedge Funds and Managed Futures is that it contains “survivorship bias”. Survivorship bias occurs because only successful funds remain in these data sets, with unsuccessful funds (that close or are merged) removed. Hence the returns can be artificially inflated. Various estimates of survivorship bias abound; a common industry estimate is that performance returns are often boosted by up to 1 per cent annually, with some estimates even as high as 2 per cent.⁴ The following analysis reduces performance returns for these series by 2 per cent annually.

In the following analysis, Hedge Funds are represented by the Hedge Fund Research (HFR) Fund of Funds Index and Managed Futures by the Centre for International Securities and Derivatives Markets (CISDM) asset weighted index. All indices are total return and currency hedged into GBP.⁵

Characteristics of Hedge Funds and Managed Futures Returns

Summary statistics for Hedge Funds and Managed Futures are presented in Figure 3 relative to traditional UK assets. It can be seen that the returns of Hedge Funds and Managed Futures lie in between those of UK Equities and UK Property even after adjusting performance for survivorship bias. Moreover, Hedge Funds have historically exhibited very low volatility and Managed Futures have shown a low maximum loss.

³ A future is a financial contract obligating one party to buy (and another party to sell) an asset at a predetermined price and future date. Forward and Options are other instruments sometimes used.

⁴ See for an example Fung and Hsieh (2000); Ackermann, McEnally and Ravenscroft (1999).

⁵ UK Equities are represented by the FTSE All share index, UK Bonds by the Citigroup 10-year Gilt benchmark, UK Property by the GPR UK property index. All returns are for January 1987 to March 2007, the largest period for which comparable data exists for all asset classes.

Figure 3 – Summary Statistics (Jan 1987 to Mar 2007)

	Annualised Returns	Annualised Std Dev	Return / Std Dev	Max Loss
UK Equities	11.0%	15.8%	0.7	-43%
UK Bonds	9.6%	7.9%	1.2	-16%
UK Property	12.6%	19.5%	0.6	-53%
Hedge Funds	11.5%	6.0%	1.9	-13%
Managed Futures	12.4%	11.6%	1.1	-9%

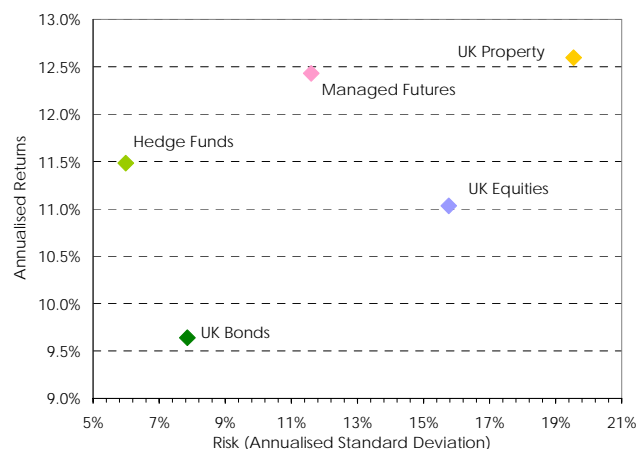
Source: Bloomberg; Frontier Capital Management

The Hedge Fund asset class has a low volatility for two general reasons. Firstly, Hedge Funds are more flexible than Mutual Funds in the investment strategies they use. They have no need to be benchmarked to equity markets and many “short” sell to provide protection against falling securities or markets. This reduces their individual volatility. Secondly, a broad exposure to this asset class similar to the HFR Fund of Fund index (which covers a very large number hedge funds) also reduces volatility. This broad exposure means that the success and failure of any one hedge fund will have a minimal impact on the asset class as a whole. These same two reasons also mean that this asset class has small losses during equity bear markets.

Similar to Hedge Funds, the Managed Futures asset class also has low levels of volatility, lying between that of UK Bonds and UK Equities. However the main attraction of Managed Futures is its positive performance during equity bear markets. This loss protection occurs due the trend following nature of this asset class – as trading advisors follow trends they are able to profit more effectively from downward price movements in bear markets relative to other asset classes.

The combination of low volatility and good returns for Hedge Funds and Managed Futures is illustrated by their high ratio of returns to risk (standard deviation) (Figure 4).

Figure 4 – Returns & Risk (Jan 1987 to Mar 2007)



Source: Bloomberg; Frontier Capital Management

To illustrate the loss protection of Hedge Funds and Managed Futures we have examined the six largest loss periods for UK Equities since 1987 (see Figure 5). Over these bear markets, UK Equities declined an average of 23 per cent; conversely Managed Futures were up an average 18 per cent and Hedge Funds were flat.

Figure 5 – UK Equity Drawdowns (Jan 1987 to Mar 2007)

Equity Drawdown	UK Equities	UK Bonds	UK Property	Hedge Funds	Managed Futures
Aug 2000 to Jan 2003	-43%	19%	-14%	1%	31%
Sep 1987 to Nov 1987	-34%	8%	-32%	-9%	12%
Dec 1989 to Sep 1990	-17%	-3%	-26%	20%	30%
May 1998 to Sep 1998	-16%	11%	-14%	-11%	9%
May 1992 to Aug 1992	-15%	-2%	-27%	3%	20%
Jan 1994 to July 1994	-15%	-14%	-18%	-5%	5%
<i>Average</i>	-23%	3%	-22%	0%	18%

Source: Bloomberg; Frontier Capital Management

The loss protection during bear markets of Managed Futures and Hedge Funds is the result of their low correlations to traditional asset classes. In general, correlations below 0.7 (70 per cent) mean that including additional assets into a portfolio will improve risk-adjusted returns. Since 1987 the correlation of UK Equities to Hedge Funds is 0.5 and to Managed Futures is -0.1. Importantly these correlations have been fairly stable over time; for the last five years it has not changed for Hedge Funds and is -0.2 for Managed Futures. Correlations to other traditional assets are similarly low.

Hedge Funds and Managed Futures in a Portfolio

The characteristics described in the previous sections suggest that Hedge Funds and Managed Futures can add value when included into traditional UK portfolios. To summarise, these characteristics are:

- Historical returns lying between UK Equities and UK Property, even after adjusting for survivorship bias.
- Low volatility and high loss protection in equity bear markets
- Low correlations to traditional asset classes

The inclusion of Hedge Funds and Managed Futures into traditional UK portfolios results in a significant reduction in portfolio volatility and maximum loss while also modestly improving returns (Figure 6). The overall result is a 170 per cent improvement in risk adjusted returns relative to an Equity only portfolio and a 30 per cent improvement relative to a portfolio comprising Equities, Bonds and Property.

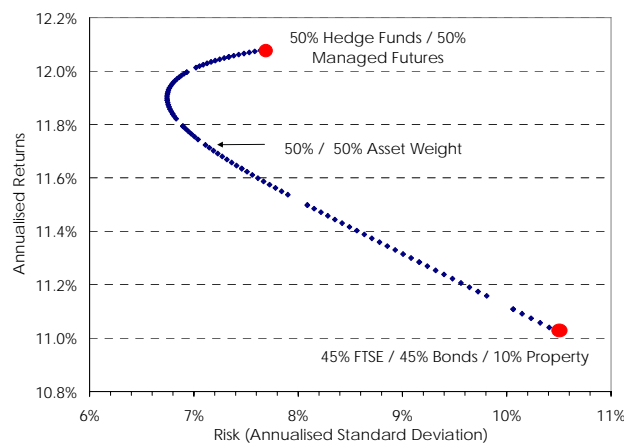
Figure 6 – Portfolios Including Hedge Funds and Managed Futures (Jan 1987 to Mar 2007)

	Portfolio 1	Portfolio 2	Portfolio 3	Portfolio 4	Portfolio 5
UK Equities	100%	45%	40%	40%	35%
UK Bonds		45%	40%	40%	35%
UK Property		10%	10%	10%	10%
Hedge Funds			10%		10%
Managed Futures				10%	10%
<i>Total Weights</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>
Ann Returns	11.0%	11.0%	11.1%	11.3%	11.4%
Volatility	15.8%	10.0%	9.3%	9.0%	8.4%
Maximum Loss	-42.9%	-18.4%	-17.6%	-15.5%	-14.8%
Return / Std Deviation	0.7	1.1	1.2	1.2	1.4
Return / Max Drawdown	0.3	0.6	0.6	0.7	0.8

Source: Bloomberg; Frontier Capital Management

The improved portfolio returns and reduction in risk occur for a variety of asset weights, not only those specified above. Figure 7 illustrates the benefit to portfolio returns and volatility from changing assets allocations from a traditionally diversified portfolio (Equity / Bond / Property) to include Hedge Funds and Managed Futures. Individual investors of all risk profiles will benefit from the utilization of Hedge Funds and Managed Futures.

Figure 7 – Including Hedge Funds & Managed Futures (Jan 1987 to Mar 2007)



Source: Bloomberg; Frontier Capital Management

Investing in Hedge Funds and Managed Futures

To maximise the benefits of Hedge Funds and Managed Futures it is important for investors' exposure to these asset classes to be both diversified and low cost. Exposure to individual hedge funds, just like exposure to individual equities, will generally lead to greater levels of volatility. Fund of Hedge Funds are a good source of diversified exposure. The disadvantage of Fund of Fund investments is the extra layer of fees payable. It is also important for investors to be aware of the liquidity terms of Fund of Funds – some can have notice periods of greater than a month and may have lock-up periods or redemption costs.

Concluding Comments

The above analysis has illustrated the return and risk characteristics of Hedge Funds and Managed Futures. The main benefit of a broad exposure to Hedge Funds is its low volatility while that for Managed Futures is its loss protection during equity bear markets. These asset classes have historical returns lying between UK Equities and UK Property, even after adjusting for survivorship bias, and as a result their inclusion into portfolios will tend to increase risk-adjusted returns.

To maximise the benefits available from Hedge Funds and Managed Futures investors should strive for a well diversified and cost efficient exposure. Frontier Capital Management's Multi-Asset Funds invest in eight global asset classes, including Hedge Funds and Managed Futures. These funds use advanced indexing techniques to gain exposure to over 200 Hedge Funds and Managed Futures Funds and at the same time minimise costs and maintain high levels of liquidity.

If you would like to learn more about the Multi Asset Funds please contact info@frontiercm.com or call +44 (0)20 7317 6900.

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Appendix A – Summary of Hedge Fund Strategies

Figure A – Summary of Hedge Fund Strategies

Equity Long/Short	These funds take directional positions in equity markets. They typically have a core portfolio of long positions and supplement with some short positions to reduce risk and/or boost returns.
Global Macro	These funds evaluate macroeconomic factors with a view to forecasting asset prices. They have a broad mandate, invest in markets globally and use a variety of equities, bonds, currencies and/or commodities. Global macro funds use a top-down approach to investing.
Short Selling	These funds take short positions in mostly equity markets, and bet that prices will decline. During bull markets they tend to invest in predominately in cash, entering into trades sporadically and for short periods of time. They underperform in bull markets and outperform in bear markets.
Arbitrage	This includes a variety of arbitrage strategies that aim to profit by simultaneously buying one security and selling another (with similar characteristics). This trading occurs when there is a pricing anomaly between the two securities.
Event Driven	These funds aim to profit from miss-pricing due to one off events in capital markets. These events are related to company specific transactions, such as bankruptcies and mergers, rather than general market situations.
Market Neutral	These funds aim to eliminate market exposure to their positions and attempt to focus on security selection alone. Market neutral funds are similar to equity long/short funds although the later tend to have net long positions and so are not fully neutral.
Market Timing	These funds aim to profit from trends in financial markets: they aim to be long during market rallies and in cash during declining markets. These funds are similar to global macro funds in that they monitor macroeconomic developments and take a top-down approach to investing, however the markets they operate tend to not be as diverse. They are not interested in stock selection but exposure to a full market.

Source: Anson (2002)

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