Alternative Investment
Management Association

APPLES AND APPLES

How to better understand hedge fund performance

It is still common for comparisons between aggregated hedge fund indices and equities indices like the S&P 500 to be made. For example, a set of monthly hedge fund index figures is often compared to the S&P in that period with the latter used as a proxy for the "market", with the difference between the two interpreted as hedge funds either under- or over-performing "the market".

These comparisons may have made sense at one point. Prior to 1990, the hedge fund industry was very largely based in the US and long/short US equity was one of the most common strategies. But the hedge fund sector today is now more diverse — AIMA has members in over 50 countries — and more global — investors in hedge funds have a choice of at least 20 different investment strategies, many of them designed to be uncorrelated to equity markets. Indeed only a relatively small number of individual funds — perhaps fewer than 20 of the roughly 374 hedge funds managing over $1 billion[1] — are understood to be invested in US equities alone.

So does it still make sense to compare hedge fund returns to the S&P 500? To what extent are such comparisons realistic? Are they a "like for like" comparison or are they comparing "apples and oranges"? Is this even the approach investors take? What would be an "apples and apples" comparison? This short paper seeks to answer these questions and makes the following recommendations about how to better understand hedge fund performance, set out in five steps:

About AIMA

As the global hedge fund association, the Alternative Investment Management Association (AIMA) has over 1,400 corporate members (with over 7,000 individual contacts) worldwide, based in over 50 countries. Members include hedge fund managers, fund of hedge funds managers, prime brokers, legal and accounting firms, investors, fund administrators and independent fund directors. AIMA's manager members manage a combined $1.5 trillion in assets (as of March 2014).

All AIMA members benefit from AIMA's active influence in policy development, its leadership in industry initiatives, including education and sound practice manuals, and its excellent reputation with regulators worldwide.

AIMA is a dynamic organisation that reflects its members' interests and provides them with a vibrant global network. AIMA is committed to developing industry skills and education standards and is a co-founder of the Chartered Alternative Investment Analyst designation (CAIA) – the industry's first and only specialised educational standard for alternative investment specialists. For further information, please visit AIMA's website, www.aima.org.

[1] HedgeFund Intelligence

Step 1 Look at risk-adjusted returns

Figure 1 below shows that over a 10-year or 20-year time horizon, hedge funds outperformed equities and bonds on an absolute basis — also known as the "headline" return.

However, informed investors do not only look at "headline" return figures. They often also look at "risk-adjusted" returns — a way of measuring the value of the return in terms of the degree of risk taken. They would often rather have steadier returns with lower volatility than higher ones with greater volatility, because of the risk of potential loss that higher volatility brings (as in 2008 when equity markets plunged).

And what Figure 1 also shows, significantly, is that hedge funds outperformed equities and bonds on a risk-adjusted basis over the last five years, despite the scale of the post-financial crisis equity bull market. This risk-adjusted out-performance was for both hedge funds as a whole and funds operating "equity hedge" strategies.

Risk-adjusted returns are calculated by the volatility of the return using "standard deviation", which considers the scale of fluctuation from peak to trough in a particular period of time. In effect, the lower the value of standard deviation, the lower the volatility. Standard deviation is a key metric for investors seeking smoother and more stable returns over the long term.

Figure 2 overleaf compares the volatility of hedge funds with equities and bonds. As a proxy for the hedge fund industry it takes the HFRI FWC[2]. For equities, it uses the S&P 500 and for bonds, the Barclays Global Aggregate ex-USD Bond Index[3]. What it shows is that hedge funds are not only less volatile than equities, which might be expected, but bonds, too. And it suggests that hedge funds are lower-risk investments than a traditional combination of long-only equities and bonds.

The risk-adjusted return is measured by the "Sharpe Ratio" — calculated by subtracting the risk-free rate (the return on US Treasury securities) from the fund or index performance (returns net of fees) and then dividing this by the fund or index's volatility. The higher the ratio, the better the risk-adjusted return.

Taking the headline returns data and the volatility data, it is possible to calculate the risk-adjusted rate. Figure 1 reveals that hedge funds as a whole had a Sharpe Ratio for the five years to the end of 2013 of 1.28, while equity hedge funds had a ratio of 1.05. These ratios were higher, despite the equity market rally, than for the S&P 500 (0.95) and the MSCI World (0.68). They also significantly outperformed the ratio for bonds (0.38) as measured by the Barclays Global Aggregate ex-USD index.

Figure 1: Comparison of both annualised 'headline' returns and risk-adjusted returns for hedge funds as a whole, equity hedge funds, bonds and equities, for various periods to end-2013

	5 year			10 year			20 year		
Index	Annualised 'headline' return	Annualised standard deviation	Sharpe Ratio*	Annualised 'headline' return	Annualised standard deviation	Sharpe Ratio*	Annualised 'headline' return	Annualised standard deviation	Sharpe Ratio*
HFRI Fund Weighted Composite	7.79%	5.88%	1.28	5.71%	6.39%	0.84	8.84%	6.99%	1.23
HFRI Equity Hedge (Total)	9.14%	8.45%	1.05	5.26%	8.71%	0.56	10.30%	9.18%	1.09
S&P 500	15.40%	15.85%	0.95	5.21%	14.63%	0.33	7.13%	15.21%	0.45
MSCI World	12.54%	18.07%	0.68	4.87%	16.41%	0.28	5.24%	15.55%	0.32
Barclays Global Aggregate ex-USD	3.51%	8.46%	0.38	4.35%	8.25%	0.49	5.52%	8.17%	0.64

*Sharpe Ratio calculations assume an annualised risk free rate of 0.3%, 0.35% and 0.25% over the 5, 10 and 20-year periods respectively. The risk free rate is calculated as the average rate of a US treasury security during the relevant period for a security of the same maturity as the period in question (eg. for the 5 year period, the risk free rate is the average rate of a 5 year treasury note over the 2009-2013 period). Source: AIMA.

[2] The HFRI FWC is Hedge Fund Research's industry-wide index and encompasses over 2,000 hedge funds. [3]The Barclays Global Aggregate ex-USD Bond Index covers the most liquid portion of the global investment grade fixed-rate bond market, including government, credit and collateralised securities. It excludes illiquid and junk bonds.

Step 2 Look at long-term data

If direct comparisons are to be made between aggregated hedge fund indices and the S&P, they should be over the long term, since short-term data can create false impressions. Comparing equity returns with hedge fund returns during a short-lived equities bull market, for example, may be misleading because many hedge fund strategies are designed to protect investments during drawdowns rather than necessarily outperforming during rallies.

That means that their usefulness to investors often increases later in the cycle. Investments that preserve capital during drawdowns will frequently outperform long-only investments over the long term because of the destructive impact of drawdowns — if an investment is down 50% one year, it needs to grow 100% the following year simply to recover those losses.

The impressive returns that equities in general achieved from 2009-2013 should be placed in context. Many investors attributed this period of growth to the impact of widespread quantitative easing (QE) globally, which inflated asset values in general and those of equities in particular. If there is a lesson historically both from equity boom markets and experiments in unconventional monetary policy, it is that what goes up often comes down, and that experiments often have unforeseen consequences.

In any case, equities fell much further than hedge funds in 2008 (the S&P 500 was down nearly 40%), which meant that a significant portion of the subsequent growth merely made up ground that was previously lost.

As Figure 3 opposite shows, hedge funds have outperformed the main standalone asset classes over the last 10 years with a cumulative return of 74% in the period. This return was accomplished with a maximum drawdown (largest peak-to-trough loss over a period) of only 21.4% (this occurred between November 2007 and February 2009). In comparison, investors in the S&P 500 experienced a 57% drawdown from November 2007 to March 2009, while investors in commodities experienced a similarly large drawdown of 54% from June 2008 to February 2009. Of the other main asset classes over this period, the biggest drawdown for property was 35% and for fixed income was 10%.

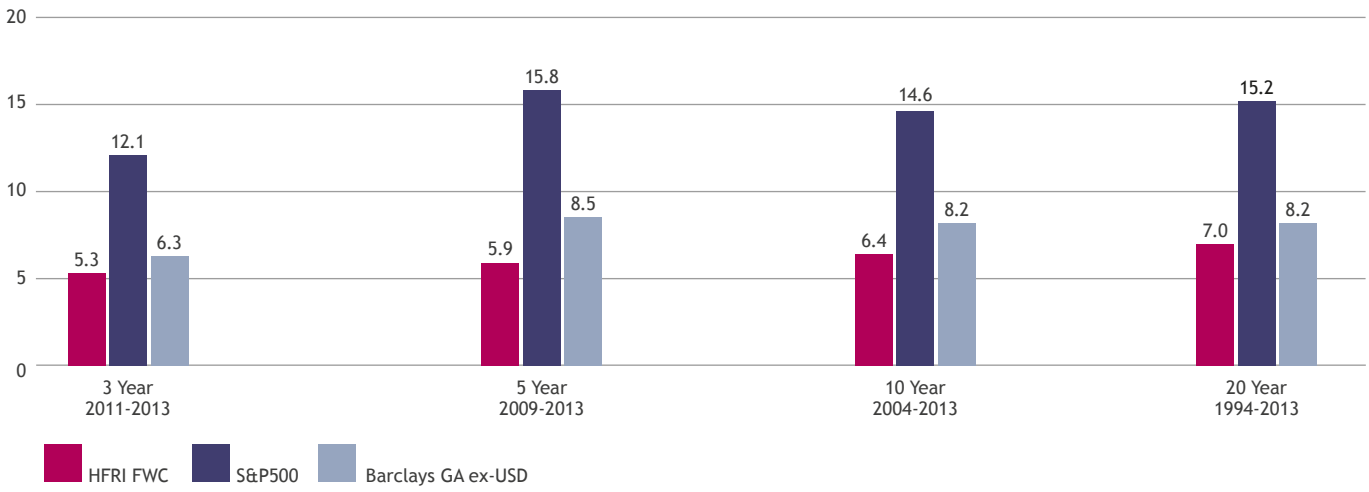
Step 3 Look at the returns by strategy

The hedge fund industry is extremely diverse. Aggregated hedge fund indices can be useful measures of the overall direction of travel of the hedge fund industry and they enable investors to draw broad-brush conclusions about the growth trajectory of the industry as a whole. But they are often interpreted as capturing the performance of the "average" hedge fund, when arguably there is no such thing.

Investors do not invest in the "average" hedge fund — one that would aim to encapsulate the characteristics of all hedge fund strategies. Rather, they allocate to specific hedge funds and strategies in order to customise their portfolios (see page 9).

Hedge funds are not an asset class. They are a way of managing money that typically features managers who have more tools at their disposal, more freedom of manoeuvre and more specialised strategies.

Figure 2: Annualised Volatility (%)



There is a large dispersion in terms of performance between the different strategies. Averaging out strategy-by-strategy data can create aggregated performance figures that bear little relation to the actual experience of many investors.

Indeed, including multiple hedge fund strategies with different performance dynamics in one bucket can result in them “netting out”. This is because different hedge fund strategies are often uncorrelated or indeed negatively correlated. If one strategy is up 3% and another is down 3%, the aggregate figure would suggest the industry flat-lined, but that would miss what really happened with those two strategies.

For example, a “tail risk” fund may be down or flat when equities are doing well and may do very well when equities do very badly. Equity hedge funds often perform very differently to CTA (managed futures) funds — CTAs did very well in 2008, when equities were down hugely, but did less well during the subsequent equity market rallies, for instance.

This is why it is better to separate the industry data by strategy, as some of the index providers have done, and to compare those average returns for a particular strategy to a relevant benchmark for the investments underpinning that strategy, whether bonds, commodities or equities.

Figure 6 (on page 11) lists the main strategy-specific indices maintained by Hedge Fund Research (HFR) in order of performance in a particular year. The chart also includes the S&P 500. What it shows is wide variations in performance from year to year between different strategies.

Step 4 Compare with the most relevant asset class

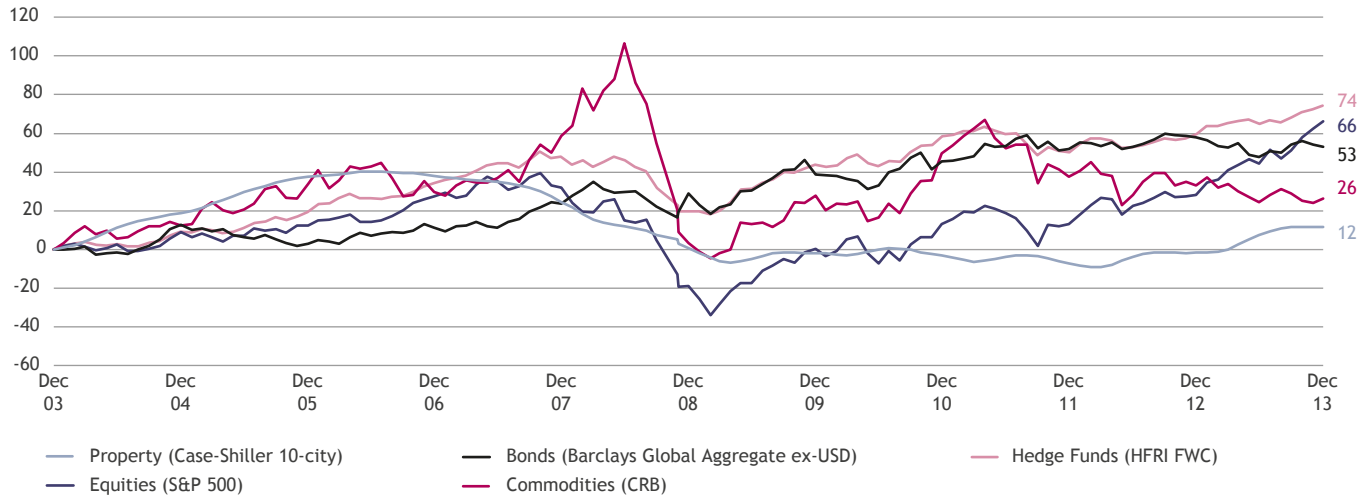
Many hedge fund strategies are designed to behave differently to equity markets. Macro and relative value strategies, for example, traditionally have exhibited low correlations with common equity indices and to compare the two is akin to comparing "apples and oranges”.

An “apples and apples” comparison can be made only if an individual hedge fund strategy is judged against its underlying asset class. For example, equity long/short with the S&P 500, or fixed income strategies with bond indices. Many strategies, of course, trade multiple asset classes.

Investors will consider how different strategies perform in relation to the most relevant asset classes (whether fixed income, commodities or equities) and the degree of correlation or volatility inherent in the strategy.

It is worth bearing in mind that a hedge fund allocation may have a particular role in an investor portfolio and a headline return comparison may not reflect that. For example, the role of the allocation may be to provide downside protection, or dampen volatility, or provide diversification.

Figure 3: Hedge funds versus main asset class cumulative returns (%)
Jan 2004 - Dec 2013



Source: AIMA

Figure 4 illustrates the scale of the diversity in the industry. It identifies 29 different hedge fund sub-strategies and shows there is not one single sub-strategy that dominates.

Indeed, some of these sectors are extremely small. The chart shows how some of the sectors that attract a lot of attention from policymakers and the media — such as "short bias" hedge funds and funds focused exclusively on sovereign debt — are tiny in comparison to the size of the industry as a whole.

Admittedly, hedge fund strategies are complex and classifying them can be subjective. However, under Hedge Fund Research's classification, these 29 sub-strategies come under four main strategy groups: "equity hedge"; "event-driven"; "macro"; and "relative value".

Equity Hedge

Equity Market Neutral
Fundamental Growth
Fundamental Value
Quantitative Directional
Energy/Basic Materials
Technology/Healthcare
Short Bias
Multi-Strategy (Equity Hedge)

Event-Driven

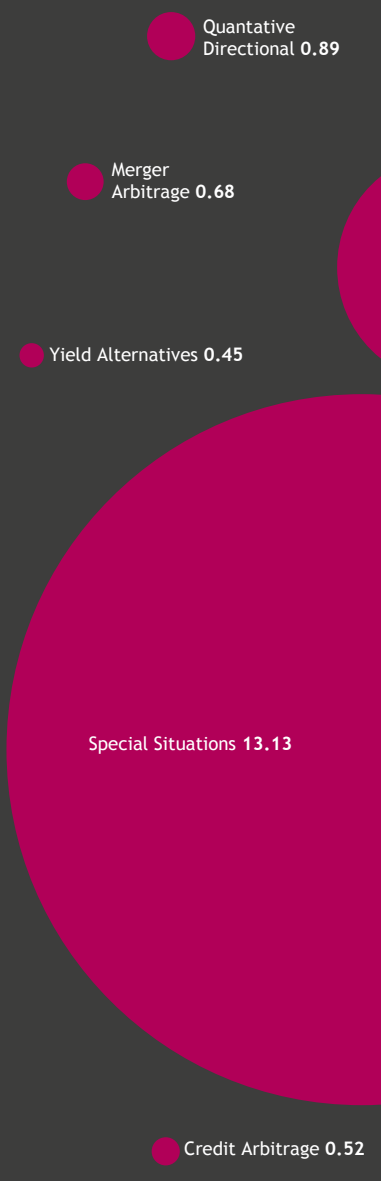
Activist
Credit Arbitrage
Distressed/Restructuring
Merger Arbitrage
Private Issue/Regulation D
Special Situations
Multi-Strategy (Event-Driven)

Macro

Active Trading
Commodity
Currency — Discretionary
Currency — Systematic
Discretionary Thematic
Systematic Diversified
Multi-Strategy (Macro)

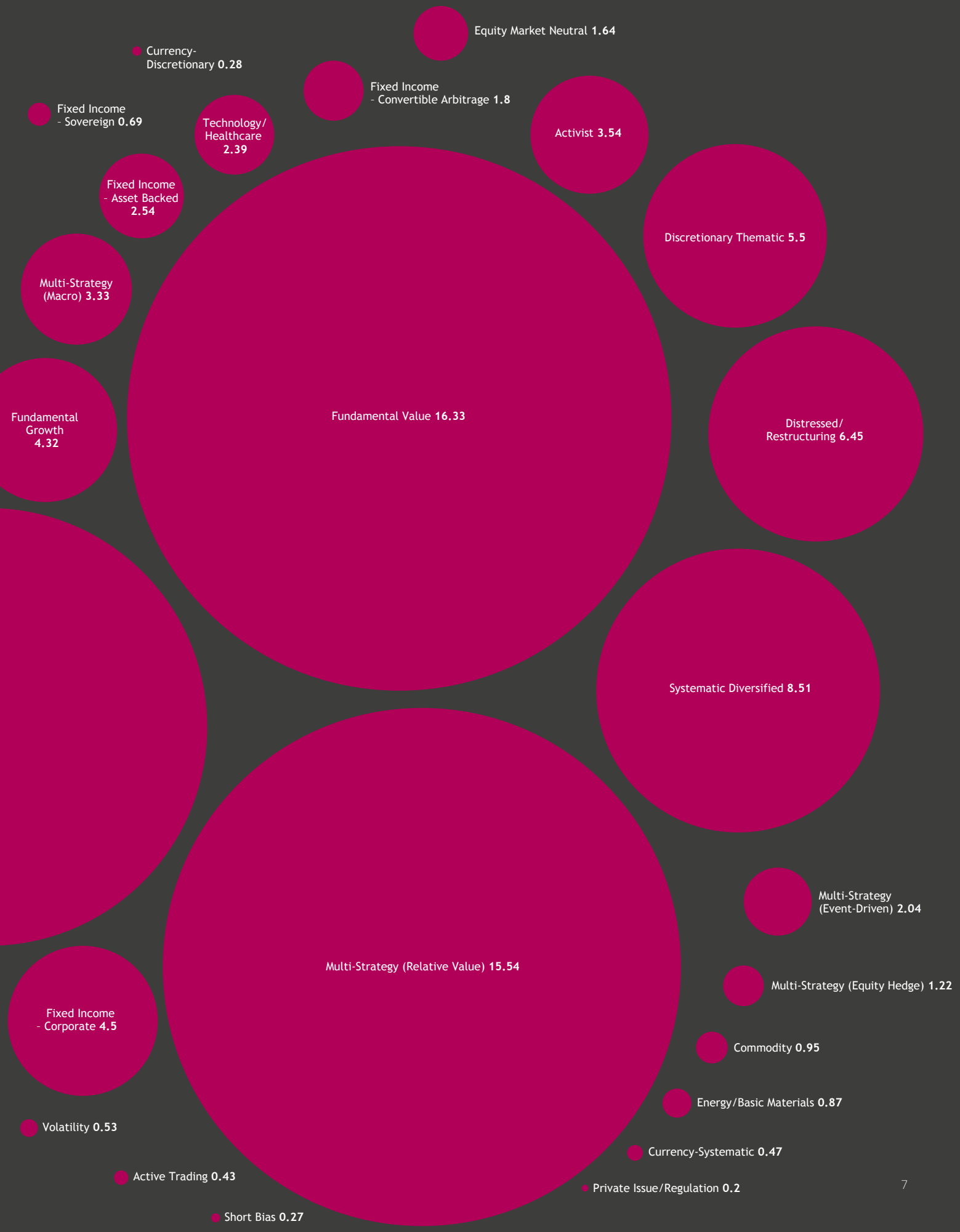
Relative Value

Fixed Income — Asset Backed
Fixed Income — Convertible Arbitrage
Fixed Income — Corporate
Fixed Income — Sovereign
Volatility
Yield Alternatives
Multi-Strategy (Relative Value)



Source: Hedge Fund Research, Q4 2013

Figure 4: Proportion of total industry AUM per strategy (%) End-2013



It is also worth considering that investors may well not be using indices as their point of comparison. They may have a particular return figure or band in mind for the hedge fund part of their portfolio. They may for example be seeking a return of T-bills plus X%.

In addition, investors often look at multiple factors when considering making hedge fund allocations. They could include peer analysis (comparing the size and quality of the returns for hedge funds that use broadly similar strategies) and risk analysis (encompassing a wide range of measures including value-at-risk, asymmetry of returns, tail risks and risk-adjusted returns). Other factors that influence the investor's choice include management experience; the level of fees, transparency, liquidity and stability; past treatment of investors; back office infrastructure and reliability; decision and execution processes; fund domicile; and the firm's ability to manage growth (among other things). Depending on the scope, investor due diligence often takes many months to complete.

Step 5 Be aware of differences between hedge fund indices

A measure of how problematic it can be to assess the performance of the "average" hedge fund comes in the different return profiles of the main hedge fund indices. Different indices have different constituencies and use different methodologies, and these variations can lead to differences in performance data.

The hedge fund industry comprises hedge funds that are both "open" and "closed". "Open" in this context means the fund is open to new investors, while "closed" means the fund is closed to new investors. These terms are occasionally misunderstood. The manager of a "closed" fund has not itself closed, nor does it mean that the fund has gone out of business or has returned all its outside investors' capital. On the contrary, some of the industry's oldest and most successful hedge funds today are "closed" and have been for many years.

Some indices, such as the HFRX, are "investable", which means they comprise only those funds that are open to new investors. Other indices, such as the HFRI, are "non-investable", which means they comprise both funds that are open and that are closed.

Some indices are updated daily and others are updated monthly. The HFRX is based on transparent managed accounts with each of the underlying constituents offering daily performance. The HFRI, the Barclay Hedge Fund Index, the Credit Suisse Hedge Fund Index and the Eurekahedge Hedge Fund Index are broad-based composites of hedge fund performance, with the constituent funds reporting monthly to the respective providers.

The funds that make up the index also have a significant bearing on the overall return, since no single composite index has all the hedge funds in the industry. Some indices have a higher proportion of CTAs, while others have more equity hedge funds, for example.

Figure 5: Dispersion of performance reported by hedge fund indices

	12 month (ytd)			36 month (ytd)				60 month (ytd)			
Hedge Fund Index	Cumulative Return	Annualised Standard Deviation	Sharpe Ratio*	Cumulative Return	Annualised Return	Annualised Standard Deviation	Sharpe Ratio*	Cumulative Return	Annualised Return	Annualised Standard Deviation	Sharpe Ratio*
HFRI Fund Weighted Composite Index	9.1%	3.7%	2.5	10.0%	3.2%	5.3%	0.6	45.5%	7.8%	5.9%	1.3
HFRX Global Hedge Fund Index	6.7%	3.0%	2.2	0.7%	0.2%	4.2%	0.0	20.1%	3.7%	4.3%	0.8
Credit Suisse Hedge Fund Index	9.7%	3.6%	2.7	15.1%	4.8%	4.4%	1.0	51.5%	8.7%	5.0%	1.7
Eurekahedge Hedge Fund Index	8.0%	3.1%	2.5	12.4%	4.0%	4.1%	0.9	51.3%	8.6%	4.9%	1.7
Barclay Hedge Fund Index	11.1%	3.9%	2.8	13.7%	4.4%	5.9%	0.7	56.0%	9.3%	6.5%	1.4
Range	***4.4%***	***0.9%***	***0.6***	***14.5%***	***4.6%***	***1.8%***	***1.0***	***35.9%***	***5.6%***	***2.1%***	***0.9***

Range is calculated as the highest indice value within a category minus the lowest.
*Sharpe Ratios assume an annualised risk free rate of 0.13%, 0.19% and 0.3% over the 1, 3 and 5-year periods respectively.

Regarding methodology, different indices take fundamentally different approaches to calculating the performance data. Some indices, such as the HFRX and the Credit Suisse All Hedge Fund Index, are "asset-weighted", which means that the contribution of each constituent fund to the index's overall return is weighted by their respective assets under management. The practical impact of this is that the performance of large funds has a greater impact on the index's overall performance than the performance of smaller funds.

Others, such as the HFRI indices, are "equal-weighted", which means that each fund has an equally weighted contribution to the index, irrespective of size – the index's overall performance is calculated by simply adding together and averaging out all the constituent funds' returns. Equal weighted indices are particularly good indicators of the hedge fund industry's performance from year to year.

Figure 5 opposite, covering the five years to end-2013, demonstrates that the five main hedge fund indices, with their different constituents and methodologies, have very different return profiles. Over the five-year period, the one index that is investable and based on managed accounts, the HFRX, returned a cumulative 20.1%. By contrast, two of the indices which are non-investable and equal-weighted – the Eurekahedge Hedge Fund Index and the Barclay Hedge Fund Index — had cumulative returns of over 50%.

This underlines how, when comparing hedge fund industry performance to other indices, the choice of index and underlying methodology and make-up is significant.

What do investors want from hedge funds?

1. A complement, not an alternative, to equities

Comparing equity and hedge fund indices presents them as a binary choice that investors make. Institutional investors tend to have large equity allocations (60% of the total portfolio, historically) and they are looking for investments that complement those large equity allocations. It's not an either/or choice between equities and hedge funds. Investors choose what works for their portfolio as a complement to equities, and what often works is that which is less correlated or uncorrelated to equities — i.e., increases the diversification of the portfolio, has lower volatility than equities, and provides downside protection against the large drawdowns that equities sometimes experience.

2. Tools to customise their portfolios

There is such diversity of investment strategies among hedge funds that allocations can increase the diversification of the portfolio and also be used as portfolio construction tools and ways to access particular markets or assets. An institutional investor will often not be taking an abstract decision to invest in hedge funds but they may well see hedge fund allocations as a good way of accessing particular markets or assets — for example China, or credit, or distressed. Rather than merely chasing performance, many institutional investors use hedge funds and other alternative investment options as tools to customise their portfolios[4].

For example, allocating to hedge funds allows them to meet individual and more customised asset-liability management objectives in terms of risk-adjusted returns, diversification, lower correlations, lower volatility and downside protection.

Are investors satisfied with their hedge fund investments?

At a time when many commentators have said that hedge fund performance is "disappointing", investor satisfaction levels continue to rise. At the end of 2013, a Barclays survey[5] of investors found that hedge fund performance for that year had been either in line with or better than the expectations of more than half of all institutional investors, with only 38% saying that performance was worse than expectations. A survey by Preqin published in January 2014 found that more than 80% of institutional investors were satisfied with performance the previous year, despite the "average" hedge fund appearing to underperform the S&P 500.

[4] Beyond 60/40: The evolving role of hedge funds in institutional investor portfolios', AIMA Investor Steering Committee paper, May 2013 - www.aima.org/en/document-summary/index.cfm/docid/77A589A0-3BEA-4559-B0F0EE38CF21B1CF

[5] 'Waiting to Exhale: 2014 Global Hedge Fund Investor Trends and Allocation Outlook', Barclays – http://t.co/twMDzc6i9K

Conclusion

To better understand hedge fund performance, it is important to:

1. **Look at risk-adjusted returns** — Hedge funds as a whole consistently outperform US equities (as measured by the S&P 500), global equities (MSCI World) and global bonds (Barclays Global Aggregate ex-USD Index) on a risk-adjusted basis, a measure that is highly valued by investors. Even during the stock-market rally of recent years, hedge funds performed better on a risk-adjusted basis than the S&P 500 and MSCI World.
2. **Look at long-term data** — The stock market rally of recent years may not last forever. Even taking the index data, hedge funds have outperformed the main standalone asset classes over the last 10 years with a cumulative net return of 74%.
3. **Look at the returns by strategy** — Hedge fund strategies are very diverse and often behave very differently to each other. Putting them all in one bucket and saying it represents the performance of the 'average' hedge fund can be misleading.
4. **Compare with the most relevant asset class, not just equities** — When benchmarking hedge fund performance, reference should be made to how different strategies perform in relation to the most relevant asset class, whether fixed income, commodities or equities.
5. **Be aware of differences between the indices** — In the five years to the end of 2013, the main hedge fund indices produced notably different results, reflecting variations in constituency and methodology.
6. **Remember investors do not make either/or choices between equities and hedge funds** — they allocate to hedge funds as a complement to their equities, not instead of them. They will often want different things from their hedge fund allocations and their equities allocations.
7. **Consider how investors use hedge funds** — investors use alternatives in general and hedge funds in particular as tools to customise their portfolios. Allocating to hedge funds allows them to meet individual and more customised asset-liability management objectives in terms of risk-adjusted returns, diversification, lower correlations, lower volatility and downside protection. This may explain the high levels of investor satisfaction from their hedge fund allocations that many surveys have reported, even at a time when many commentators have been arguing the industry "under-performed" relative to the S&P 500. It suggests that many institutional investors may prefer steadier returns achieved with lower volatility to higher returns achieved with greater volatility.

Appendix

Figure 6: Performance of the main strategy-specific indices

2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
HFRI ED: Merger Arb 18.02%	HFRI RV: Convert Arb 13.37%	Barclays Gov't/ Credit 12.10%	HFRI Emerging Markets 39.36%	HFRI ED: Distressed 18.89%	HFRI Emerging Markets 21.04%	HFRI Emerging Markets 24.26%	HFRI Emerging Markets 24.92%	Barclays Gov't/ Credit 6.09%	HFRI RV: Convert Arb 60.17%	S&P 500 15.08%	Barclays Gov't/ Credit 9.24%	S&P 500 15.99%	S&P 500 32.36%
HFRI EH: Eq Mrkt Ntrl 14.56%	HFRI ED: Distressed 13.28%	HFRI RV: Convert Arb 9.05%	HFRI ED: Distressed 29.56%	HFRI Emerging Markets 18.42%	HFRI Equity Hedge 10.60%	HFRI ED: Distressed 15.94%	HFRI Macro 11.11%	HFRI Macro 4.83%	HFRI Emerging Markets 40.24%	HFRI RV: Convert Arb 13.07%	S&P 500 2.09%	HFRI Relative Value 10.59%	HFRI Equity Hedge 14.44%
HFRI RV: Convert Arb 14.5%	HFRI Event-Driven 12.18%	HFRI Macro 7.44%	S&P 500 28.67%	HFRI Event-Driven 15.01%	HFRI Fund Wghtd Comp 9.30%	S&P 500 15.78%	HFRI Equity Hedge 10.48%	HFRI ED: Merger Arb -5.36%	HFRI ED: Distressed 28.13%	HFRI Emerging Markets 11.96%	HFRI ED: Merger Arb 1.48%	HFRI Emerging Markets 10.37%	HFRI ED: Distressed 14.04%
HFRI Relative Value 13.41%	HFRI Emerging Markets 10.36%	HFRI Relative Value 5.44%	HFRI Event-Driven 25.33%	S&P 500 10.86%	HFRI ED: Distressed 8.27%	HFRI Event-Driven 15.33%	HFRI FOF Composite 10.25%	HFRI EH: Eq Mrkt Ntrl -5.93%	S&P 500 26.47%	HFRI Relative Value 11.73%	HFRI Relative Value 0.15%	HFRI ED: Distressed 10.12%	HFRI Event-Driven 12.48%
Barclays Gov't/ Credit 13.27%	Barclays Gov't Credit 9.40%	HFRI ED: Distressed 5.28%	HFRI Macro 21.42%	HFRI Fund Wghtd Comp 9.03%	HFRI FOF Composite 7.49%	HFRI ED: Merger Arb 14.24%	HFRI Fund Wghtd Comp 9.96%	HFRI Relative Value -18.04%	HFRI Relative Value 25.80%	HFRI Event-Driven 11.53%	HFRI ED: Distressed -1.79%	HFRI Event-Driven 8.89%	HFRI Fund Wghtd Comp 9.24%
HFRI Equity Hedge 9.09%	HFRI Relative Value 8.92%	HFRI Emerging Markets 3.70%	HFRI Equity Hedge 20.54%	HFRI Equity Hedge 7.68%	HFRI Event-Driven 7.29%	HFRI Fund Wghtd Comp 12.89%	HFRI Relative Value 8.94%	HFRI Fund Wghtd Comp -19.02%	HFRI Event-Driven 25.04%	HFRI ED: Distressed 11.26%	HFRI EH: Eq Mrkt Ntrl -2.12%	HFRI RV: Convert Arb 8.58%	HFRI FOF Composite 8.79%
HFRI Event-Driven 6.74%	HFRI Macro 6.87%	HFRI FOF Composite 1.02%	HFRI Fund Wghtd Comp 19.55%	HFRI FOF Composite 6.86%	HFRI Macro 6.79%	HFRI Relative Value 12.37%	Barclays Gov't/ Credit 7.75%	HFRI FOF Composite -21.36%	HFRI Equity Hedge 24.55%	HFRI Equity Hedge 10.58%	HFRI Event-Driven -3.30%	HFRI Equity Hedge 7.41%	HFRI RV: Convert Arb 7.79%
HFRI Fund Wghtd Comp 4.98%	HFRI EH: Mrkt Ntrl 6.71%	HFRI EH: Eq Mrkt Ntrl 0.98%	HFRI FOF Composite 11.61%	HFRI Relative Value 5.58%	HFRI ED: Merger Arb 6.25%	HFRI RV: Convert Arb 12.17%	HFRI ED: Merger Arb 7.05%	HFRI Event-Driven -21.82%	HFRI Fund Wghtd Comp 19.98%	HFRI Fund Wghtd Comp 10.49%	HFRI Macro -4.16%	HFRI Fund Wghtd Comp 6.36%	HFRI Relative Value 6.98%
HFRI FOF Composite 4.07%	HFRI Fund Wghtd Comp 4.62%	HFRI ED: Merger Arb -0.87%	HFRI RV: Convert Arb 9.93%	HFRI Macro 4.63%	HFRI EH: Eq Mrkt Ntrl 6.22%	HFRI Equity Hedge 11.71%	HFRI Event-Driven 6.61%	HFRI ED: Distressed -25.20%	HFRI ED: Merger Arb 11.63%	HFRI Macro 8.61%	HFRI RV: Convert Arb -5.16%	Barclays Gov't/ Credit 5.07%	HFRI EH: Eq Mrkt Ntrl 6.65%
HFRI ED: Distressed 2.78%	HFRI FOF Composite 2.80%	HFRI Fund Wghtd Comp -1.45%	HFRI Relative Value 9.72%	Barclays Gov't/ Credit 4.54%	HFRI Relative Value 6.02%	HFRI FOF Composite 10.39%	S&P 500 5.49%	HFRI Equity Hedge -26.65%	HFRI FOF Composite 11.46%	Barclays Gov't/ Credit 6.99%	HFRI Fund Wghtd Comp -5.25%	HFRI FOF Composite 4.79%	HFRI Emerging Markets 5.60%
HFRI Macro 1.97%	HFRI ED: Merger Arb 2.76%	HFRI Event-Driven -4.30%	HFRI ED: Merger Arb 7.47%	HFRI EH: Eq Mrkt Ntrl 4.15%	S&P 500 4.91%	HFRI Macro 8.15%	HFRI RV: Convert Arb 5.33%	HFRI RV: Convert Arb -33.71%	Barclays Gov't/ Credit 4.81%	HFRI FOF Composite 5.60%	HFRI FOF Composite -5.73%	HFRI EH: Eq Mrkt Ntrl 2.98%	HFRI ED: Merger Arb 4.82%
S&P 500 -9.09%	HFRI Equity Hedge 0.40%	HFRI Equity Hedge -4.71%	Barclays Gov't/ Credit 5.07%	HFRI ED: Merger Arb 4.08%	Barclays Gov't/ Credit 2.55%	HFRI EH: Eq Mrkt Ntrl 7.32%	HFRI EH: Eq Mrkt Ntrl 5.29%	S&P 500 -36.99%	HFRI Macro 4.37%	HFRI ED: Merger Arb 4.60%	HFRI Equity Hedge -8.38%	HFRI ED: Merger Arb 2.76%	HFRI Macro -0.22%
HFRI Emerging Markets -10.71%	S&P 500 -11.85%	S&P 500 -22.09%	HFRI EH: Eq Mrkt Ntrl 2.44%	HFRI RV: Convert Arb 1.18%	HFRI RV: Convert Arb -1.86%	Barclays Gov't/ Credit 4.07%	HFRI ED: Distressed 5.08%	HFRI Emerging Markets -37.26%	HFRI EH: Eq Mrkt Ntrl 1.43%	HFRI EH: Eq Mrkt Ntrl 3.16%	HFRI Emerging Markets -13.99%	HFRI Macro -0.06%	Barclays Gov't/ Credit -2.47%

Source: Hedge Fund Research

Alternative Investment
Management Association

AIMA
Alternative Investment
Management Association

www.aima.org