FUNDANA
Fundamentally different

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Why Equity Long/Short?

"Because life is too short to be just long"[1]

Many investors have been disappointed with their equity allocation over the last decade: poor performance paired with tremendous volatility has left them pondering what to do with their equity risk. After all, equity markets have halved *twice* in the last decade. Indeed, an old joke from the 1920s is back: "I bought stock for my old age and it worked – in six months, I now feel like an old man!" Should investors exit equities and invest in a bond market which has just had a 30 year rally? Should they reduce their allocation massively and wait for a rebound to get back in again? Can they get equity-like returns with much lower volatility and smaller drawdowns in order to build long-term wealth?

We posit that part of the answer lies in using equity long/short managers as a partial replacement for a long-only equity allocation. As we will show in this paper, not only would this substitution enhance an investor's portfolio returns for an overall lower risk, but it would also reduce the impact of bad entry points when entering the equity market and help avoid behavioral traps, whilst maintaining transparency of their investments.

In 1999, two pioneer quantitative equity researchers, Grinold & Khan, were already commenting that "the benefits of long/short investing [versus long-only] can be significant, particularly when the universe of assets is large, the assets' volatility is low, and the strategy has high active risk"[2].

More recently, in its 2011 survey, the asset management consultant Casey Quirk found that the vast majority of consultants are now thinking of a global equity allocation combining long-only and long/short products together[3]. The same approach is being taken for credit allocations.

1 Quote from Laurent Saglio, fund manager of Zadig Fund, a European Long / Short Equity Hedge Fund. *In addition, we would also like to thank Bruno Guillemin and Nick Morrell from the Fundana team for their thoughts and suggestions.*

[2] *"Active Portfolio Management" Grinold & Khan, McGraw Hill 1999.*
[3] *"Old Wine in New Bottles, 2011 Consultant Search Forecast"* Casey Quirk, April 2011. A survey of 55 investment consultants – including 15 of the 20 largest North American consultants.

This leaves other hedge fund strategies, such as global macro and market neutral funds, in an alpha bucket. When decomposed along these lines, the selection of the relevant benchmark is natural: equity indices for equity long/short and cash for alpha strategies.

For the purpose of this analysis, we define equity long/short managers as fundamental bottom-up stock-pickers. They focus on finding large price discrepancies between a stock price and its estimated fair value. These managers can be generalists, or region or sector specialists. We thus do *not* include quantitative equity market-neutral, statistical arbitrage strategies or short sellers.

In order to avoid the biases present in traditional indices such as the HFRI or the Dow Jones Credit Suisse indices (e.g. survivorship bias, self-reporting bias, non-investible indices), we have prepared this analysis using the track record of a Fund of Hedge Funds (net of fees[4]) which has a long/short equity focus and a 20 year track as a proxy for an investment in equity long/short hedge fund managers (hereafter referred to as the "equity long/short proxy")[5]. We think this FoHF is a good representation of an equity long/short FoHF.

During Bad Times: Obsess Over The Losses!

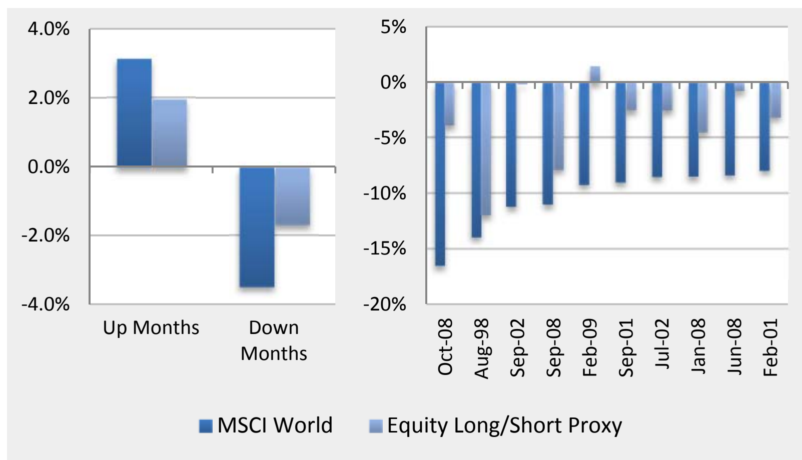
Improving portfolio efficiency

Because equity long/short managers are also active beta managers, they generally capture most of the indices' upside while limiting the losses on the downside. In turn, this generates an asymmetric return profile.

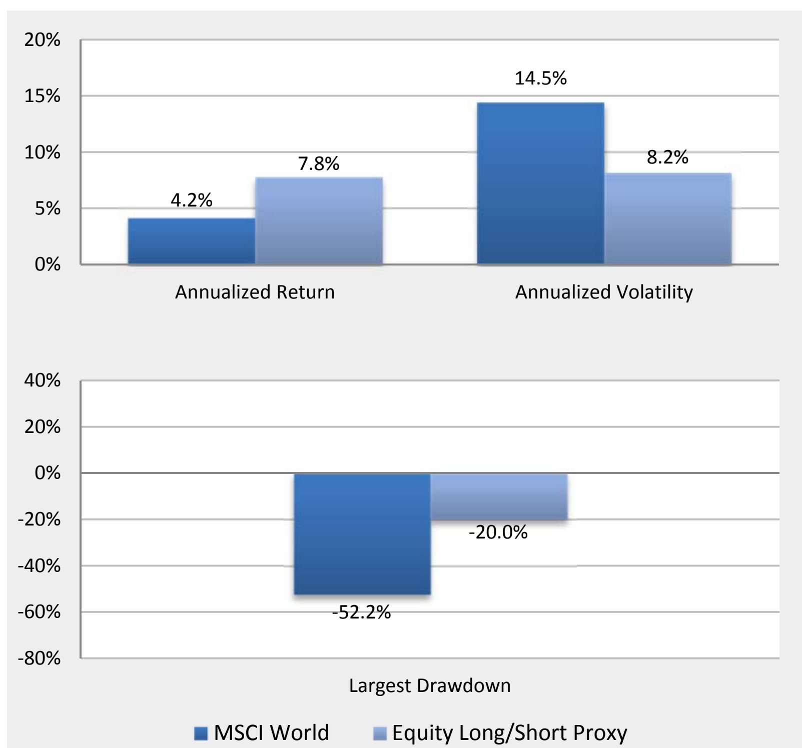
As can be seen in the left-hand chart below, since 1993 the average positive month for the MSCI World returned 3.1%. During those same months, the equity long/short proxy is up 2.0% on average. On the downside, the average negative month for the MSCI World results in a loss of -3.5%, while the equity long/short proxy limits losses during the same months to -1.7% on average.

In addition, during turbulent months, one can see from the right-hand chart (here showing the 10 worst months for the MSCI World since 1993) that the equity long/short proxy is down significantly less than the equity index.

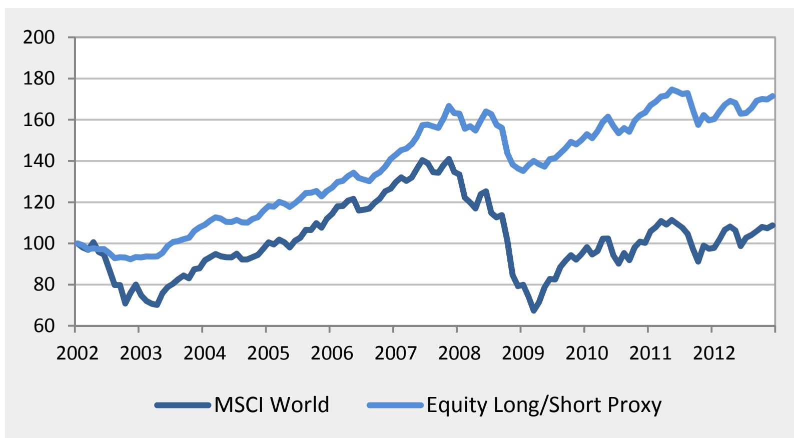
[4] These fees include the management and performance fees for both the underlying managers as well as the FoHF manager and all other fees (such as custody, administration, audit, etc.).
[5] The selected FoHF is Prima Capital Fund, which is advised by Fundana S.A.



We display below the annualized return, volatility and largest drawdown for the MSCI World and the equity long/short proxy from April 1993 until December 2012.



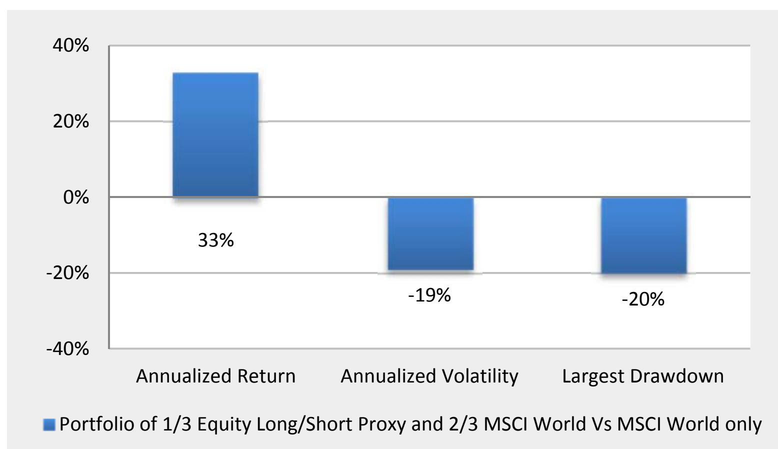
The chart on the next page shows the performance of the MSCI World versus the equity long/short proxy. It illustrates well how the above concepts can indeed be implemented. From 2003 until 2007, the equity long/short proxy captured almost all of the upside of the MSCI World, while from 2008 until 2009 it clearly limited the downside. Note that this is *not* a non-investible index or a pro-forma track record, but a real track net of fees.



This ability to protect the downside is crucial to generate outperformance in the long run. If, over the last 20 years, an investor managed to capture 2/3 of the MSCI World upside each month while limiting the downside to 1/3, he would have outperformed the index by 170%! Limiting losses makes a significant difference in the long run.

Many investors ask what is the best upside/downside ratio they can hope their managers to achieve? In our experience, capturing 60% of the upside and limiting losses to 40% of the downside on a monthly basis (60/40 ratio) is already *very* good. Since 1993, this would have resulted in a 50% outperformance versus the MSCI World. It is important to consider the frequency with which the investor is evaluating his managers, as this level of outperformance can also be achieved via a 65/35 ratio on quarterly returns or via a 75/25 ratio on annual returns.

How much can this asymmetric return profile actually improve a long-only portfolio? The graph below shows the impact of replacing one third of an equity allocation with the equity long/short proxy, starting in 1993.

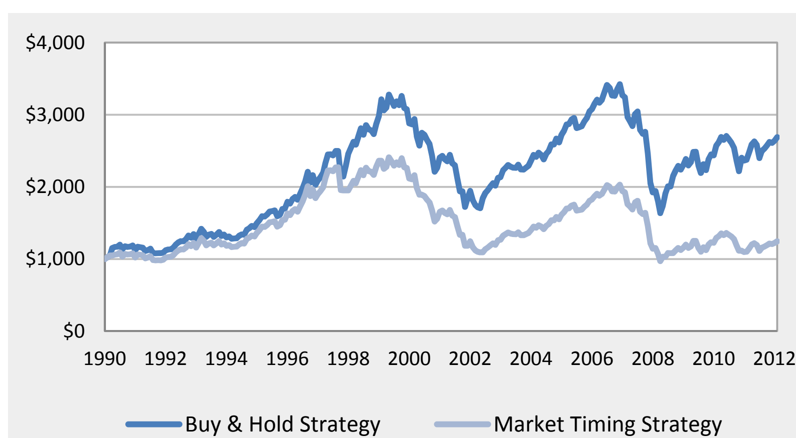


With just a one third replacement, the annualized return for the portfolio increases by 33% while the volatility drops by 19%. Note that the largest drawdown is reduced by 20%. It is thus clear that combining a long-only allocation with a long/short component can add significant value by generating higher returns with lower portfolio volatility. Put differently, de-risking the equity portfolio or reducing the equity risk budget does not mean giving up the equity market upside in the long run.

Seize The Moment! Sure, But Which One?

Poor entry timing in long-only can be costly

Many investors still try to time the market when entering or re-entering equities. This is a hard task and can be costly. The graph below shows the value of $1'000 invested in 1990 in a pure buy and hold strategy (dark blue line) compared to the value of $1'000 invested in a strategy which would have missed the ten best month of the MSCI World by trying to time the market but that was unlucky (light blue line).



The difference in performance is significant. By missing only the top 10 months, you would cut your total return by more than 2, so instead of being around $2'700, you would be around $1'250![6]

Is it the same when entering an equity long/short FoHF, an investor may ask? Not really. In fact, since 1993, if you missed the top months in the MSCI World you would make 46% of the MSCI World's return[7]. With the FoHF, if you also missed those same ten months, you would be much better off since you would capture 85% of the FoHF's total return.

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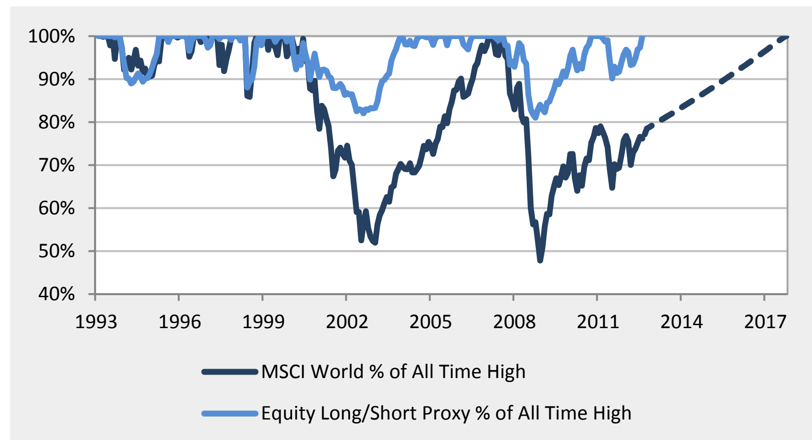
[6] Various simulations of market timing produce similar results. For example, if the investor mistimed the bottom and missed the two months following each of the ten worst S&P 500 monthly declines, the outcome would be a return of $11'000 instead of $15,000, still an underperformance of nearly 30% versus a plain buy & hold strategy.
[7] We use 1993 as this is the start of the FoHF's track record.

Another way to think about the consequences of bad entry timing is to look at how long it can take to recover from drawdowns. The following chart shows the drawdowns of the MSCI World and of the equity long/short proxy[8]. This drawdown measure is the value of an index expressed as a percentage of its all-time high.



The dotted line above shows how long it would take to recover from the current drawdown to get back to the all-time high, assuming a 5% growth per annum. It would take about 5 years and a return of 23% for the MSCI World while the equity long/short proxy is already there![9] [10]. Put differently, you need a 100% return to recoup a 50% drawdown. As Warren Buffet said "Rule No. 1 is: never lose money. Rule No. 2 is: never forget rule number one!"

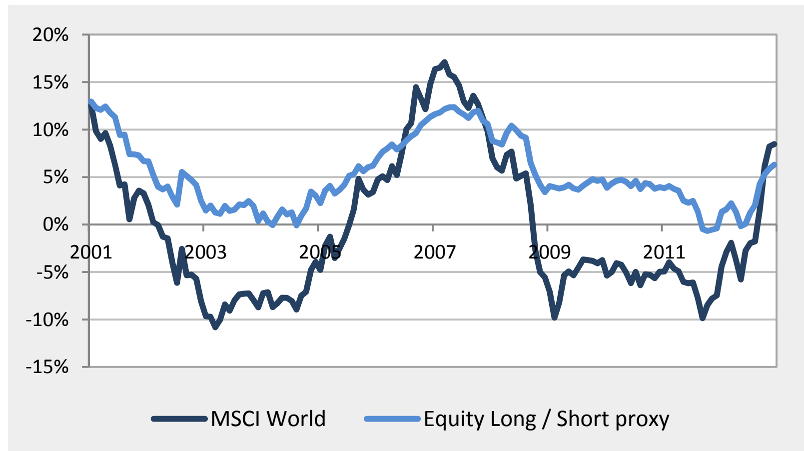
2002 – 2012: A Lost Decade For Equity Investors?

A trade-off between ups and downs

During the last 10 years, we have witnessed the tail of the dot.com bust, corporate frauds, a large housing bubble bust, and the worst financial crisis of the last 70 years in the developed markets. In this context the MSCI World was only up high single digits for the whole period. As many investors think of their investments over an economic cycle, it is sensible to ask how well their investments did.

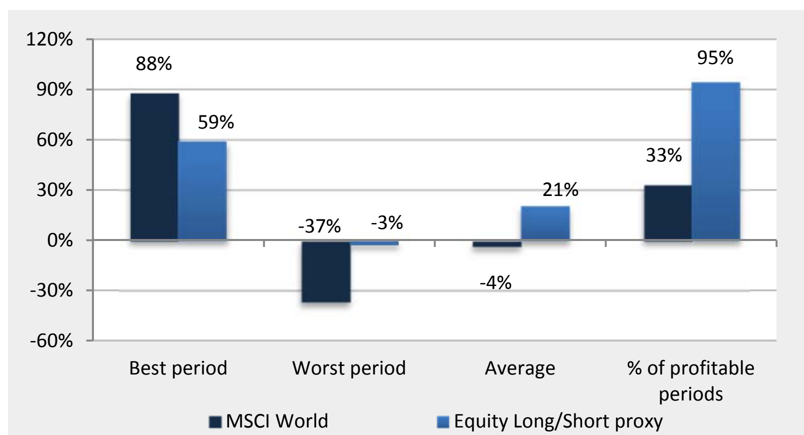
[8] *"Equity Hedge Revisited*" Ineichen Research and Management, September 2010. See www.ineichen-rm.com for additional analysis on the significance of drawdowns.
[9] In fact the equity long/short proxy has outperformed the MSCI World by 3.4% net of fees per year for the last 10 years.
[10] Using the largest historical drawdowns of 50% and 20% respectively for the MSCI World and the equity long/short proxy, the gains needed are 100% for the S&P 500 but just 25% for the equity long / short proxy.

The next graph shows the 4-year monthly rolling performances for the MSCI World and the equity long/short proxy. The 4-year period was chosen to approximate an average investment holding.



This shows that the only times when the MSCI World investment outperformed the equity long/short proxy were from August 2006 to September 2007[11], and since May-12. This suggests that in a strong bull market, the equity long/short proxy will lag the overall equity market.

The following graph summarizes the key results when analyzing the above returns.



Over a 4-year cycle, the equity long/short proxy has 95% of monthly profitable periods vs. 33% for the MSCI World. Equally important for an investor, the average return of the equity long/short proxy for a 4-year investment was +21% compared with -4% for a similar investment in the MSCI World.

[11] Since we are dealing with 4-year rolling returns, the August 2006 return implies an initial investment in August 2002, and the May-12 return implies an initial investment in May 2009.

These findings demonstrate the added value of the equity long/short proxy in actively managing the beta allocation and preserving capital in difficult periods. While the proxy is able to largely capture the upside (+88% for the best MSCI World 4-year period vs. +59% for the proxy), it limits losses on the downside (-37% for the worst MSCI World 4-year period vs. -3% for the proxy).

Making Common Sense...More Common

Liquidity, pricing, transparency, governance & education

Over the last decade, long/short equity FoHFs clearly highlighted the trade-off between capturing the extreme bullish rise of the markets and ensuring a profitable investment with consistent performances over an economic cycle.

It is our experience that equity long/short strategies are structurally safer than other hedge fund strategies. The public equity markets benefit simultaneously from an ample liquidity pool, securities that are easily priced (no Level 3 issues) and are subject to regulations (e.g. filing requirements such as 13F, 13D, shorting rules). The strategy has the additional advantage that investors can understand it more easily.

These regulatory filings enable manager selectors to have very good transparency of the hedge fund manager's positions. As a result, it is much easier to monitor risk factors such as concentration, both at the portfolio level as well as a percentage of company ownership, and to anticipate potential liquidity problems. This is much harder to do for strategies that use mainly OTC markets (such as Fixed Income Arbitrage) or that operate in unregulated environments (for example Credit or Forex).

It is also important to understand that, for investors who are *new* to investing in hedge funds, the equity long/short strategy is probably the best ground for starting one's education. Unlike many other strategies, investors are typically used to investing in equities and to fair stock valuation via fundamental analysis. The major investment differences come from shorting and leverage. While not trivial, these techniques are more easily understood than automated trading models, securities or convertible arbitrage done by macro, CTA or relative value strategies.

Emotional Roller Coaster

Ability to re-engage the market

Non-professional investors can be subject to large emotional swings when investing. Typically, during bear markets those investors go through phases of denial, fear, desperation, panic and finally capitulation. When the rebound occurs, investors often stay on the side lines because they are so anxious about getting hurt again, thus missing out on big rallies, or worse get in too late.

Indeed, Dalbar[12] estimates that over the last twenty years, equity fund investors averaged 3.2% vs. 8.2% for a buy and hold strategy for the S&P 500. Other behavioral economists, such as James Montier, have shown that under stress many investors start focusing on high-risk, high-payoff trades and on the short-term[13]. After 20 years of daily interaction and monitoring of long/short managers, we have found that, on average, professional long/short managers are more able to mute their emotions and re-engage in markets faster than non-professional investors.

Is Everybody Doing The Same Old Thing?

Correlation and stock overlap

Market commentators often assume that all equity long/short managers do the same thing and thus are very highly correlated. However, our analysis and experience do not support this view. In fact, when looking at the average pair-wise correlation, the equity long/short proxy's managers are about 40% correlated. Compare this to the stock market correlation over the last few years, where the average stock correlation was north of 70% and sector correlation north of 90%![14]

The equity long/short proxy's low correlation is not the result of coincidence. Indeed, the average percentage of stock overlap between all of its managers is between 3% and 5%[15]. As Sir John Templeton once said, "it is impossible to produce superior performance unless you do something different from the majority". Again, this suggests that long/short funds can add value to long-only portfolios.

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[12] *"2011 Quantitative Analysis of Investor Behavior"* Dalbar, March 2011. Available from www.dalbar.com

[13] *"Behavorial Investing"* James Montier, Wiley Finance 2007.

[14] Goldman Sachs Global ECS Research

[15] The percentage stock overlap of Fund A with Fund B is defined as the number of stocks commonly held by A and B divided by the total number of stocks held by Fund A.

Staying Ahead Of The Curve By Thinking Twice

How should investors implement their long/short strategy?

Unfortunately, the equity long/short strategy is also the most populated and represented in the hedge fund universe. Indeed, there are currently 3,710 equity long/short managers according to the Pertrac hedge fund database[16]. The Equity Hedge strategy makes up 27% of the HFRX global hedge fund index, making it the largest strategy weighting. Should an investor choose one or two managers by himself in order to have a good proxy for the strategy? After all, in long-only strategies managers have similar performances, meaning that if you choose one, you have almost all of the others. Or on the contrary should he have a more diversified allocation?

To answer these questions, it is useful to look at manager return dispersion. This measure gives a sense of how the returns are distributed between the best and the worst managers. If there is not much difference between the returns of the best managers and the returns of the worst ones, then there is little dispersion and there is not much skill needed in selecting one manager over the other. If on the other hand, there is a large dispersion then one needs a great deal of experience and knowledge (i.e. skill) to select the best managers. The table below shows returns estimates for long-only managers (split by market cap focus) versus long/short managers. The dispersion is measured by taking the difference between the top performers (1st quartile) minus the worst performers (4th quartile).

Quartile	Large Cap (%)	Mid Cap (%)	Small Cap (%)	Long/Short (%)
1st	8.8	10.6	11.3	20.3
2nd	3.5	6.4	6.0	9.1
3rd	5.9	3.7	2.9	4.3
4th	-2.0	-1.0	-4.3	-6.6
Dispersion	**10.8**	**11.6**	**15.6**	**26.9**

Source: Bloomberg (4,560 funds) and Pertrac (3,685 funds with over $50M AuM), data from 08/31/10 to 09/30/11.

The analysis above confirms that there is more dispersion amongst long/short funds than there is with long-only funds. The dispersion for large-cap managers is 10.8%, 11.6% for mid-cap and 15.6% for small-cap managers. These are much smaller than long/short managers, where the dispersion is 26.9%. Thus, it makes sense to have a team of specialists that can assist investors in sourcing, selecting and monitoring the best equity long/short managers.

[16] The actual database source is hedgefund.net

Selecting hedge funds requires experience, discipline and in particular a strong network of industry contacts. Whilst the ability to find and invest with hedge funds has undoubtedly become simpler in recent years, the identification of the best managers still requires connections throughout the industry which cannot be built overnight. Hedge fund selectors who have been in the sector for a long time and have had the discipline to keep track of analysts and portfolio managers' career paths can obtain independent opinions about a manager from previous peers or colleagues. This is in stark contrast to references provided by the manager himself which by definition will yield positive appraisals.

In addition, even having identified a strong manager, to keep track of both the investment process (to ensure there is no style drift, for example) and the operations process (to minimize operational risk in the investment) requires significant resources both in terms of time and the expertise of the team.

Because Alfred Jones Also Created His Own Portfolio Of Long/Short Managers

What to do from here

This analysis has shown how equity long/short managers can improve the resilience of an investor's portfolio to market losses. In addition, it has shown that not all managers invest in the same stocks or themes, and that the strategy itself is probably structurally safer than many other hedge fund strategies.

What would we advise investors to do from here? The first step would be to move their equity long/short managers to their equity bucket, at least in an economic sense. At the very least, the strategy will now have the right benchmark with a long-only index.

If an investor does not already have an allocation to the equity long/short strategy, then we recommend using one as an equity substitute. While the strategy is easy to understand, it is not that simple to implement and thus we suggest starting with a small allocation, use the portfolio transparency to understand return sources and stay with the managers who demonstrate that they have a repeatable process. If the investor team does not have the bandwidth for this additional analysis, then it should consider outsourcing it by selecting an experienced

specialized FoHF manager. After all, even industry veteran Alfred Jones created his own FoHF in the mid-1980s.

To conclude, some investors and market commentators have hastily put all hedge funds strategies in the same bucket, as if hedge funds were an asset class. We believe this is too simplistic and largely the wrong approach. Hedge funds, more often than not, reflect the active management of an asset class, not an asset class in itself. And despite the bad press or some investors' skepticism, hedge fund strategies like equity long/short do participate on the upside while protecting on the downside as this analysis has shown. As Alfred Jones once quipped, "hedging is a speculative tool used to conservative ends".

✦About Fundana

Founded in 1993 by Dariush Aryeh and Thomas Alessie, Fundana specializes on Alternative Investments. The firm currently acts as advisor for 3 Funds of Hedge Funds with a total of $850 million in assets under management. Its flagship mandate, a Long / Short equity FoHF, is graded Platinum by Standard & Poor's.

The firm provides alternative investment solutions (via commingled Funds of Hedge Funds or bespoke solutions) to High Net Worth Individuals, Independent Asset Managers and Institutional Investors.

✦For any queries and /or comments, please contact:

Dariush.Aryeh@Fundana.ch

Alessie@Fundana.ch

Michael.Gerber@Fundana.ch

Cedric.Kohler@Fundana.ch