

Rocaton

INSIGHTS

*Taking the Bite Out
of Your Equity Beta*

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Executive Summary

- * Long-only equity indices have generated tepid returns over the last decade along with heightened volatility. In contrast, many long/short equity strategies have produced higher returns with lower risk over the same period.
- * A key to the superior risk-adjusted returns achieved by long/short equity strategies has been their ability to preserve capital during periods of market weakness, while participating in market rallies.
- * Long/short strategies' flexible investment mandates and discretion in shrinking or expanding portfolio beta have contributed to their relative outperformance.
- * Long/short strategies typically lag their long-only counterparts during sharp market ascents. However, over the past decade this has not had a significant impact on their ability to add value relative to long only indices.
- * As with all active strategies, ongoing due diligence of long/short equity hedge fund managers is necessary to ensure that they adhere to their investment mandate and risk parameters.
- * Rocaton believes that investors with significant equity allocations should consider the addition of long/short equity strategies as a part of the equity program as a means of improving the program's risk adjusted returns.

Introduction

Rocaton believes that fundamentally driven long/short equity hedge funds may offer equity investors meaningful beta participation and improved downside protection, making these strategies worthy of investor consideration.

While no one can perfectly time the market, certain portfolio strategies may make the ride a bit smoother for equity investors. The addition of long/short equity strategies as a part of an overall equity strategy may improve expected risk adjusted returns. Rocaton believes that fundamentally driven long/short equity hedge funds may offer equity investors meaningful beta participation and improved downside protection, making these strategies worthy of investor consideration. Of course, long/short strategies heavily rely on active managers' investment acumen and stewardship, so manager due diligence and ongoing monitoring play a critical role in the use of these strategies.

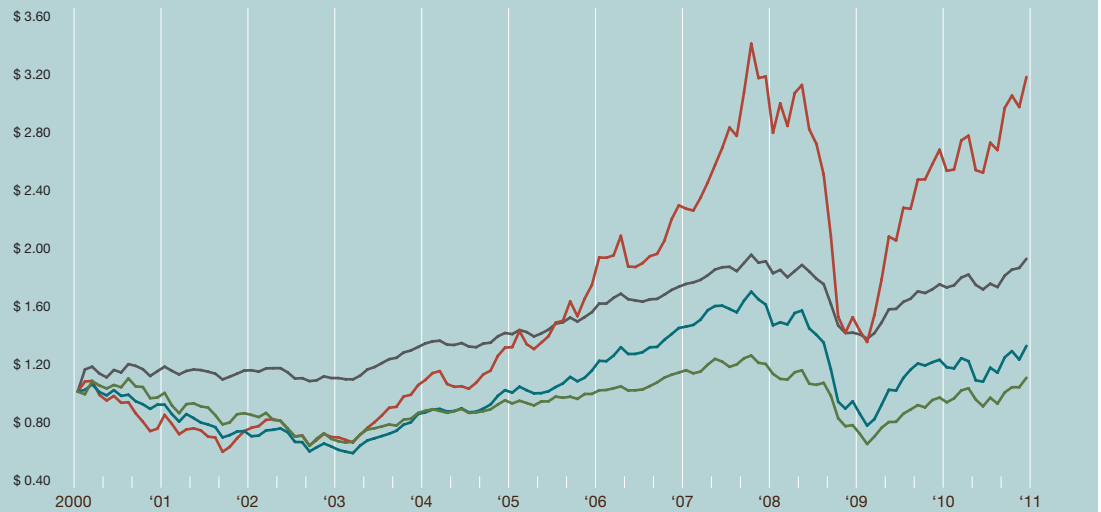
The Benefits of a Long/Short Strategy

Many total return oriented investment portfolios with a long time horizon have a core weighting to the equity markets between 40% and 60%. While a sizable equity allocation provides the potential for long-term rewards, it also entails significantly higher volatility relative to most other asset classes. Over the past decade (2001–2010), investing in developed market equities generated, on average, low returns and high volatility. In the U.S., the S&P 500 Index produced an annualized return of a mere 1.4%, with annualized standard deviation of 16.3%. Developed international equity indices fared somewhat better, as the MSCI EAFE Index generated an annualized 3.9% return for a US based investor, but with a standard deviation of 18.6%.

Equity Market Performance
January 2000–June 2011

Legend:

- MSCI Emerging Markets Index
- HFRI Equity Hedge Index
- MSCI EAFE Index
- S&P 500 Index



	S&P 500 Index	MSCI EAFE Index	MSCI EM Index	HFRI Equity Hedge Index
Annualized Return	0.90%	2.53%	10.51%	5.66%
Annualized Volatility	16.06%	17.97%	23.99%	8.96%
Sharpe Ratio	-0.02	0.09	0.43	0.37

Source: Russell Mellon

3 Month Treasury Bills are used as a proxy for the risk-free rate. Monthly data observations used.

A lost decade? Developed market equities produced tepid gains from 2001–2010.

Compared to traditional long-only indices, long/short equity hedge funds as a group have delivered superior risk-adjusted returns, producing a 5.5% annualized gain with a volatility level of only 8.4% over the same 10-year period. It has been the ability of hedged equity strategies to protect capital in down periods that has provided investors with a more stable return profile through the difficult market cycles.

Absolute Return—A Myth During Market Turbulence?

A review of the performance of long/short equity hedge fund managers during times of severe market downturns, such as the tech bubble in 2000–2002 and the credit crisis in 2007–2009, reveals that long/short equity hedge funds were able to meaningfully preserve capital relative to long-only indices. Better long/short equity hedge fund performance over time stemmed from shallower drawdowns and faster recovery (*shown in the table on page 4*) as compared to long-only indices. A lower drawdown can lead to higher returns over time due to the power of compounding.

Drawdown History

Drawdown Periods	Drawdown	Months to the Low	Months to Recovery	Additional Return Needed to Complete Recovery
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Credit Crisis

October 2007 – February 2009

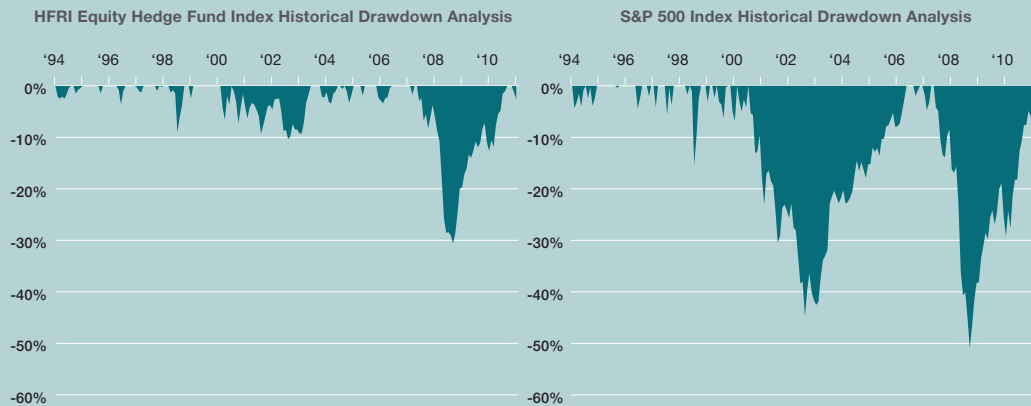
S&P 500 Index	-50.95%	16	Not Recovered*	8.12%*
HFRI Equity Hedge Index	-30.57%	16	Not Recovered*	0.55%*

Tech Bubble

August 2000 – September 2002

S&P 500 Index	-44.73%	25	49	---
HFRI Equity Hedge Index	-10.30%	25	10	---

Sources: Russell Mellon, HFRI *As of June 30, 2011



Long/short equity strategies have experienced substantially lower drawdowns during periods of heightened market volatility,

The Key Drivers Behind Better Risk Adjusted Past Performance

We can identify three primary reasons for long/short equity hedge fund risk-adjusted outperformance over the past decade:

1. Alignment of financial incentives linked to absolute performance.
2. Greater potential for alpha from using both long and short investments.
3. Flexible portfolio construction and ability to vary market exposure.

Hedge fund structures typically offer higher financial prospects for talented investment professionals. The incentive structure, commonly referred to as “2 and 20” (citing typical management fees of 2% and performance fees of 20% of profits) allows skilled portfolio managers and analysts to demonstrate their abilities in a relatively unconstrained investment mandate. Hedge fund managers reap rewards based on absolute rather than relative performance.

The potential for stock selection to add value is heightened in equity long/short funds because talented stock-pickers can benefit from their research on both sides of the portfolio. Long/short equity managers have the potential to monetize their views on the short side and exploit arbitrage opportunities regardless of market direction. The maintenance of the short side through

all market cycles is critical to extracting the potential value of long/short investing. Long/short equity hedge fund managers' skill in selection of proper short positions and a consistent turnover of these names can help ensure that the short side of the portfolio does not increase in a rising market, and thereby completely erase the profits from the longs. Additionally, hedge fund portfolios are typically less constrained in their sector allocations and position concentrations; hence the portfolio managers can disproportionately emphasize their highest conviction ideas. For example, a long/short equity portfolio may hold 60-70% of its long equity value in its top ten positions. For strategies with concentrated portfolios, allowing for uneven weights on both long and short sides may enable managers to distribute risk more evenly across an entire portfolio. Furthermore, during challenging environments there is a potential for increased correlations among securities within the equity market. Given this, stock selection alone may not be sufficient to protect capital. This is why a typical long/short equity hedge fund's flexible investment

In its simplest form, gross exposure is the sum of a long/short equity hedge fund's long market value and short market value. The net exposure is the difference between the long and short market values. Portfolio managers can use these exposure levels to adjust overall fund positioning to be more aggressive in an upward trending market.

mandate and discretion in shrinking or expanding portfolio beta may contribute to relative outperformance versus the broader equity market. The primary measures of portfolio beta are the hedge fund's exposures to the market, commonly referred to as the net and gross exposures. In its simplest form, gross exposure is the sum of a long/short equity hedge fund's long market value and short market value. The net exposure is the difference between the

long and short market values. Portfolio managers can use these exposure levers to adjust overall fund positioning to be more aggressive in an upward trending market. Conversely, they can take a more defensive stance during periods of excess volatility.

For example, in a falling market environment a manager can assume a defensive posture and reduce net exposure by adding short positions and/or cutting long holdings. This defensive stance is precisely what many long/short equity managers implemented during the most recent credit crisis. The chart on the following page plots the average net and gross exposure data for a sample of long/short equity managers from January 2005 through June 2011. The majority of portfolio de-risking began in the summer of 2007 and continued through the end of 2008, as hedge fund managers reduced their gross exposure from 166% to 101% and net exposure from 73% to 23%. It is precisely this flexibility with portfolio positioning that has been a key driver in many hedge funds protecting capital in challenging market environments.

Historical Hedge Fund
Gross and Net Exposure
January 2005 – June 2011

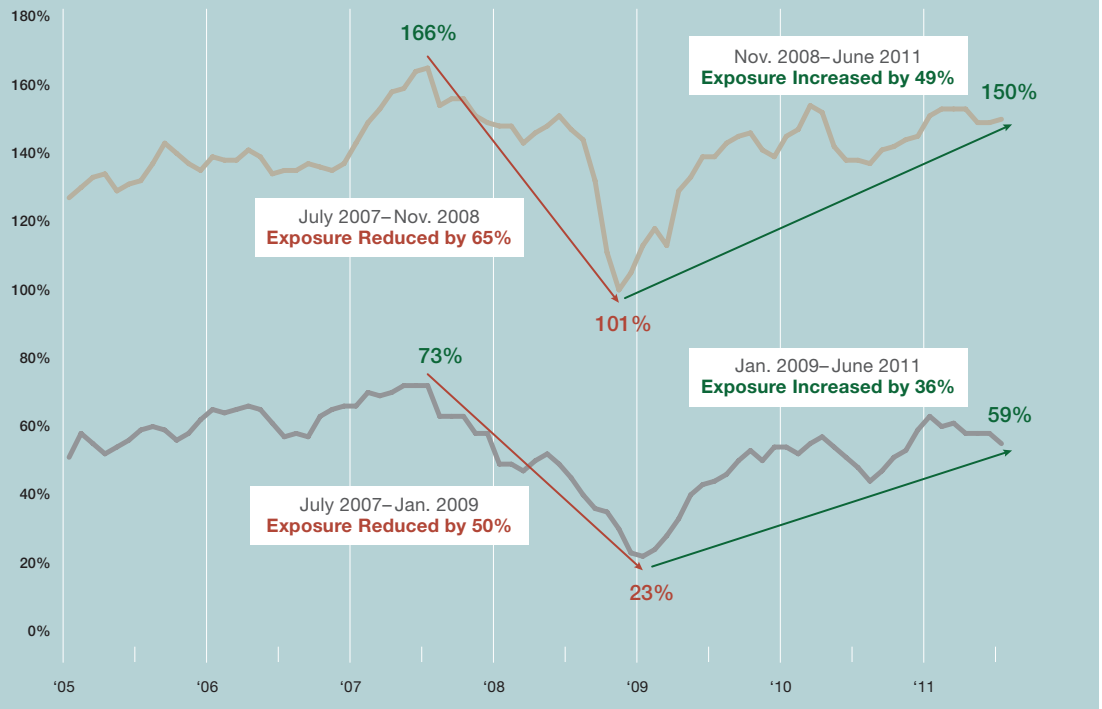
Legend:

Gross Exposure

Net Exposure

Source:
Morgan Stanley Prime Brokerage

Per Morgan Stanley, the sample includes US L/S accounts with at least \$50MM in assets and it has been rebalanced every 6–12 months to keep sample representative of historical accounts. Sample number varies by year and ranges from 250 to 600 individual managers.

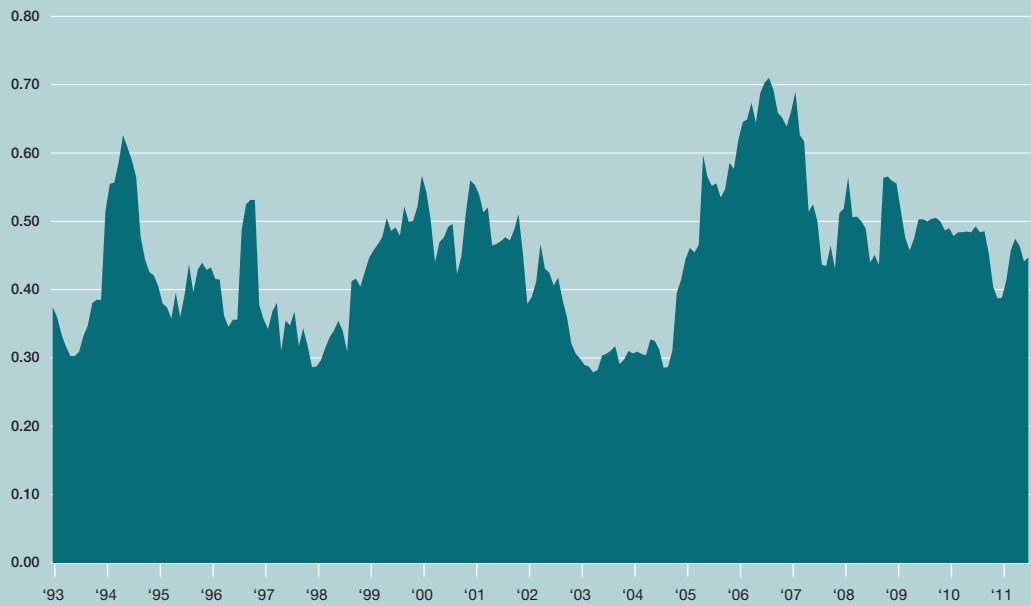


*Please refer to important disclosures at the end of the document.

Long/short equity hedge fund managers as a group have judiciously adjusted their gross and net equity exposures in recent years.

Long/short equity hedge fund managers are able to actively adjust their beta to the equity markets and as a group did so relatively rapidly and successfully in the period analyzed. As shown above, the average net exposure increased from 23% to 59% from January 2009 through June 2011, a period when the market began to recover. Not surprisingly, as shown in the chart on the following page, equity hedge fund betas have been substantially lower than the S&P 500 Index.

Rolling 2-Year Beta
HFRI Equity Hedge Index
versus S&P 500 Index

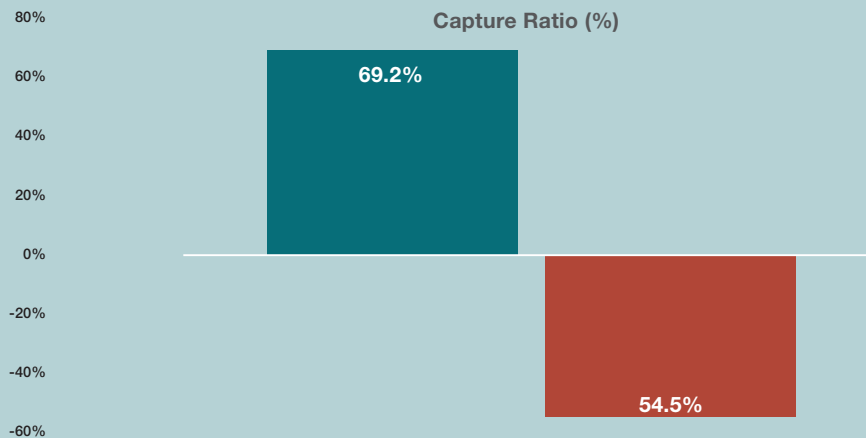


Source: Standard & Poor's, HFRI
Monthly data observations used.

Long/short equity hedge funds are able to actively adjust their beta to the equity markets

Although long/short equity hedge funds have typically lagged the broader markets in the initial stages of a market rally and during periods of significant market gains, the market capture data below demonstrates that long/short equity managers were able to meaningfully participate in market rallies despite the drags of the short portfolio and lower betas. Capture ratio measures the upside and downside participation relative to a market index. For example, the upside capture ratio for a manager is computed by dividing the manager's returns by the market index returns in months when the market index was positive. The chart below illustrates the capture ratio of the HFRI Equity Hedge Index to the S&P 500.

Up and Down
Market Analysis
HFRI Equity Hedge Index
versus S&P 500 Index
January 2000–June 2011



Long/short equity hedge funds were able to participate in market rallies and significantly avoided the brunt of the market decline.

Long/Short Equity Within a Broader Equity Framework

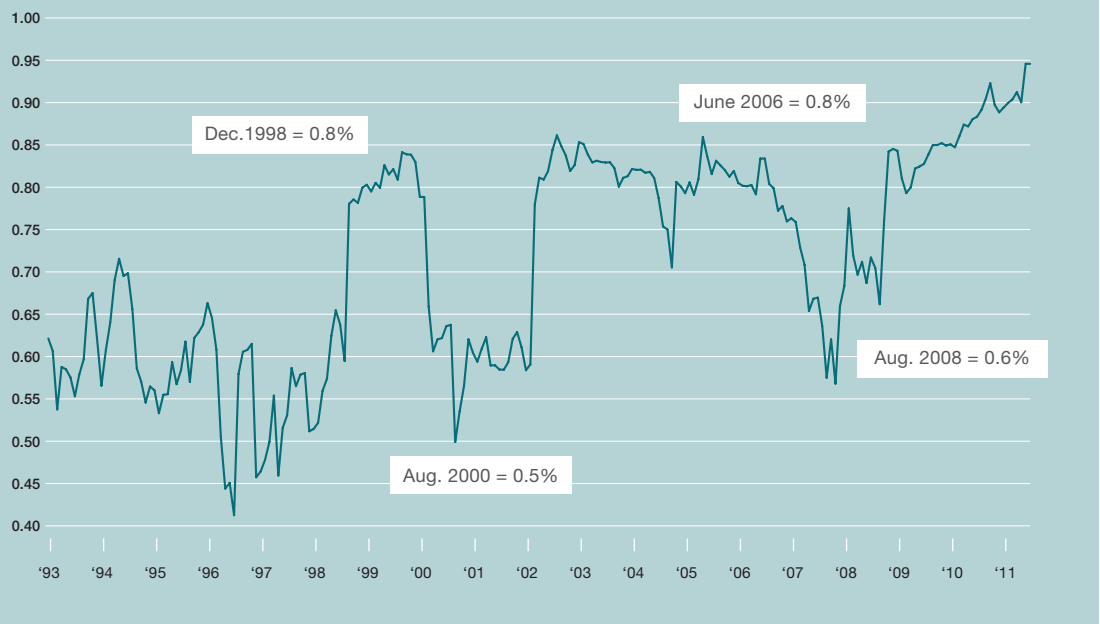
Long/short equity investing often falls into the “alternatives” category, along with other hedge fund strategies. However, we believe it is also appropriate to consider long/short equity managers within a broader equity investment framework. By incorporating long/short equity hedge funds directly within an equity allocation, and not simply grouping them into an “alternatives” allocation, investors can reduce their exposure to the market’s direction. This allows investors to participate more fully in an equity market through an active beta allocation, with the goal of substituting alpha for beta.

It is important to emphasize that during periods of strong upward market movements, a long/short equity hedge fund allocation may reduce the returns of the overall equity program.

While long/short equity strategies may help to reduce overall portfolio volatility, their gains may be less robust during significant market rallies.

Lower expected correlations can be another added benefit of the inclusion of long/short equity strategies. The ability of long/short equity hedge funds to invest in both long and short positions has historically enabled them to have somewhat lower correlations versus the broader market during economic downturns. In sustained bull markets, the correlation coefficient (R) of HFRI Hedged Equity Index to broader equity indices has been as high as 0.9. However, during the recent credit crisis, the correlation dropped to 0.7 in August of 2008. The decline in the correlation was much sharper and steeper in March of 2000 when the correlation coefficient was 0.5. During the recent credit crisis, a ban on shorting of financial stocks in the fall of 2008 hurt numerous long/short equity portfolios and likely contributed to higher correlations during that period.

Rolling 2 Year
Correlation Analysis
HFRI Equity Hedge Index
versus S&P 500 Index



Long/short equity hedge funds have had somewhat lower correlations versus the broader market during economic downturns.

Risks and caveats

Hedge fund investing presents certain risks including illiquidity, higher fees and lower transparency. Higher financial incentives in the hedge fund industry attract talented investment professionals and incent managers to focus on avoiding significant losses, but this same fee structure can also create a significant “headwind” for returns and may also have a negative effect of luring inexperienced opportunists that are looking to make a quick profit and may be taking excess risk to do so. Therefore, active monitoring of hedge fund managers which consists of ongoing qualitative and quantitative due diligence is crucial in the selection process. Active due diligence is also instrumental to ensure that a manager adheres to a designated investment style, strategy, security selection and risk parameters. Further, the analysis performed above utilized a hedge fund benchmark consisting of self-reported results from managers. This benchmark is not investable and suffers from all the issues associated with indices of active managers including potential inaccuracies and survivor bias.

Conclusion

Hedge funds do not come without concerns, such as well-publicized cases of insider trading, illiquidity and high fees. However, Rocaton believes that, when aided by strong due diligence, long/short equity strategies may be an important contributor to improving expected risk adjusted returns of equity investment programs.

Disclaimer to Morgan Stanley Data on Page 6.

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