Long-Short Equity Handbook

By: Mallory Horejs, Alternative Investments Analyst

Long-short equity is the oldest and most prevalent alternative strategy around. The concept dates back to 1949, when Alfred Winslow Jones established the world's first hedge fund. Since that time, long-short equity strategies have proliferated within both hedge fund and separate account structures and have more recently migrated to registered vehicles like mutual funds and exchange-traded funds. While there are notable differences between the various structures, these funds take both long and short positions in equities (individual stocks, options, or ETFs) with the intention of damping downside risk.

Strategy Overview

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Long-short equity funds take a net long stock position, meaning the total market risk from the long positions is not completely offset by the market risk of the short positions. Long-short equity funds' total return, therefore, is a combination of the return from market exposure (beta) plus any value-added from stock-picking or market-timing (alpha). Long-short equity strategies can be grouped into three subsets based on the way in which they hedge downside risk.

First and foremost, there are the long-short stock-pickers, who use fundamental bottom-up research to make long and short directional bets—buying securities they expect to rise in price and short-selling those they expect to decline in price. Although these managers short primarily to generate returns, many also use index options, futures, or ETFs to hedge out market risk if the risk or net exposure (long stocks minus short stocks) of the fund is too high for their liking. Wasatch Long-Short FMLSX, a mutual fund that makes fundamental long and short bets on individual stocks based on macroeconomic themes, valuation, and technical indicators, follows this classic approach. Wasatch Long/Short's net stock market exposure usually ranges from 30% to 90% of assets.Not all stock-pickers hedge, however. Diamond Hill Long-Short DIAMX is one such nonhedger. Diamond Hill's net stock market exposure, which is determined purely by the mix of long stocks and short stock picks, usually hovers around 50%, slightly higher than the average mutual fund in Morningstar's long/short category.

The second subset includes funds that simply hedge long stock positions through ETFs or derivatives to reduce market risk. Hussman Strategic Growth HSGFX employs this type of long-short strategy. Manager John Hussman selects a diversified portfolio of long stocks based upon fundamental metrics and then hedges out market exposure (to varying degrees) using synthetic short positions (a long put plus short call) on the S&P 500 Index. Investors must carefully consider a manager's hedging techniques when selecting a long-short fund. Short-stock-pickers will be limited when shorting opportunities are restricted or hard to come by, and pure hedgers won't be able to produce any outperformance from stock selection on the short side.

The final variation involves option-writing strategies, some of which may not even select stocks at all. These long/short funds generate much of their profits by collecting option premiums (often on an equity index, but sometimes on individual stocks) rather than by betting on movements in the underlying stocks. These strategies also hedge downside risk to a certain extent with put options. Gateway GATEX, the oldest alternative mutual fund listed in the Morningstar database (launched in December 1977), follows this type of long/short strategy. Longtime manager Patrick Rogers takes on long equity exposure by purchasing a broadly diversified basket of S&P 500 stocks. He sells index call options to profit from volatility in the stock market, while purchasing index put options to hedge some of the portfolio against a market decline.

Another "long-short" approach often lumped into the long-short equity mutual fund bucket is 130/30, or short-extension strategies. These strategies start with a full portfolio of long stocks ($100 for example), take on leverage ($30 for example) to purchase additional long stocks, and simultaneously short the same amount of stocks ($30 in this example), for a total net equity exposure of 100%. ($100+$30-$30=$100.) The amount of leverage and short extension may vary (for example, 120/20 or 110/10). Because these 130/30 strategies maintain 100% net equity exposure, usually to a traditional benchmark, they exhibit correlation and beta characteristics similar to traditional investments. Therefore, Morningstar generally does not consider them "alternative."

II Long-Short Equity Strategies Across Structures

Although long-short equity strategies are now accessible through many investment vehicles, hedge funds still offer the most choices. Morningstar's hedge fund database (as of Sept. 30, 2011) contains more than 2,500 funds with long-short equity strategies, far more than the number available in any other vehicle today. (Figure 1.) These 2,500 funds account for just more than a third of the entire hedge fund database in number and 25% in terms of assets. While hedge fund long-short equity strategies include both global and regionally focused long-short equity funds (Asia/Pacific, China, emerging markets, Europe, and U.S.), 658 of these funds invest almost entirely in U.S. large- or small-cap equities. Like all hedge funds, these long-short equity funds are only available to accredited or qualified investors.

Some investors may not like the lack of transparency that typically accompanies investments in hedge funds. Therefore, some investors choose to gain access to a long-short equity strategy through a separate account vehicle. Separate accounts are similar to hedge funds in that both are unregistered investment vehicles available to more-sophisticated investors (often requiring a minimum investment of $100,000 or more). Whereas hedge fund or mutual fund investors own shares in a managed pool of securities over which they have no control; separate account investors directly own the actual securities. Morningstar's separate account database lists just more than 60 separate accounts that employ long-short equity strategies The oldest of these is Husic Classic Hedge, a U.S. equity long-short strategy managed by Husic Capital Management and launched in July 1986.

Over time, long-short equity strategies have also migrated into more easily accessible, registered vehicles like mutual funds and ETFs. These liquid alternatives, which provide at least daily liquidity, full transparency of portfolio holdings on a regular basis (quarterly for mutual funds and daily for ETFs), and limitations on leverage, date back more than 30 years. The oldest mutual fund offerings in the category include Gateway, Old Mutual Analytic ANDEX, Caldwell & Orkin Market Opportunity COAGX, and Robeco Long-Short Equity BPLSX. Many of the offerings, however, emerged after the 2008 financial crisis. Many of these new alternative mutual funds were launched by longtime hedge fund managers looking for a way to diversify and expand their investor base. As of Sept. 30, 2011, Morningstar tracked 71 long-short equity mutual funds and 11 ETFs. (Figure 1).

ETFs and exchange-traded notes present the latest way to gain access to long-short equity strategies. ETFs trade throughout the day over an exchange (like stocks), and most are designed to passively track the performance of an underlying index. They are typically the cheapest and sometimes the most tax-efficient structure, yet the overall level of long-short equity assets managed in ETF-form still pales in comparison to the other vehicles. Today, Morningstar tracks 11 long-short equity ETFs and ETNs, the oldest of which, iPath CBOE S&P 500 BuyWrite Index ETN BWV, dates back to May 2007.

Figure 1 Number of Long-Short Funds and Long-Short Assets (as of Sept. 2011)

	No. of Long-Short Equity Funds	Total Assets ($ billions)
Hedge Funds Database*	2,505	79.49
Separate Accounts Database	62	7.07
Mutual Funds Database	71	17.72
ETFs Database	11	0.30

*Includes both U.S. and non-U.S. hedge funds.

III Historical Performance of Long-Short Equity Strategies

Past performance provides an important input when forming risk and return expectations. Figure 2 provides the annual returns of long/short equity strategies by investment vehicle over the past decade (these figures are category averages that are not adjusted for survivorship or backfill bias). The chart illustrates that long/short equity strategies employed in hedge funds have exhibited the highest total returns on average, while the average long-short equity mutual funds have provided a more-muted return stream. The wide disparity in historical returns across vehicles can be explained largely by the restrictions on leverage and illiquid assets imposed on mutual funds and ETFs by the Investment Company Act of 1940. The average long-short hedge fund, separate account, and mutual fund, however, have all outperformed the S&P 500 on a total return basis over the past decade (as of Sept. 30, 2011).

When comparing alternative investments (or any two investments, for that matter), a risk-adjusted performance measure such as the Morningstar Risk-Adjusted Return, Sortino ratio, or Sharpe ratio is most accurate. The Sharpe ratio, for example, calculates a fund's excess returns over the risk-free rate relative to its standard deviation. The higher a fund's Sharpe ratio, the better its returns have been relative to the risk it has taken on (for positive returns—this ratio presents problems when comparing two investments with negative excess returns). A good alternative investment will deliver positive risk-adjusted returns over time, typically at a lower correlation to one's existing raditional portfolio.

Figure 3 provides the one-year, three-year, five-year, and 10-year Sharpe ratios across vehicles. The data indicates that hedge funds have provided the most attractive risk-adjusted performance overall. Mutual funds have outperformed the S&P 500 Index on a risk-adjusted basis over the three-year and 10-year periods but have come up short over the one- and five-year periods. The short history of ETFs makes generalizations difficult.

When evaluating the historical performance of individual funds, investors will find that many liquid alternatives hold very limited track records (nearly half of all 470 or so alternative mutual funds and ETFs launched post-2008). Most alternative managers, however, have run similar strategies in separate account or hedge fund formats, and these track records are often accessible through Morningstar's separate account or hedge fund databases. When looking at the track record of a related strategy, investors must make sure to understand the differences which may distort performance, chiefly the use of more leverage or less-liquid assets.

Figure 2 **Average Annual Returns by by Long-Short Investment Vehicle**

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Hedge Funds	7.87	-1.93	28.27	13.44	8.88	14.17	11.79	-21.63	35.08	13.39
Separate Accounts	4.65	6.38	10.98	7.63	10.71	11.87	13.03	-9.12	22.52	10.82
Mutual Funds	5.37	2.05	8.46	5.06	4.77	7.23	4.42	-15.40	10.46	4.13
ETFs*	–	–	–	–	–	–	–	-29.48	31.45	8.10
S&P 500	-11.89	-22.10	28.68	10.88	4.91	15.79	5.49	-37.00	26.46	15.06

*First ETF incepted January 2008

Figure 3 **Average Risk-Adjusted Returns by Long-Short Equity Vehicle through 9/30/11**

	1-Year Sharpe Ratio*	3-Year Sharpe Ratio	5-Year Sharpe Ratio	10-Year Sharpe Ratio
Hedge Funds	N/A[1]	0.48	0.45	0.44
Separate Accounts	N/A[1]	0.40	0.27	0.44
Mutual Funds	-0.60	0.01	-0.17	0.31
ETFs	0.03	-0.07	N/A[2]	N/A[2]
S&P 500	0.05	0.16	-0.06	0.13

*Weekly data required for the one-year Sharpe Ratio.

[1] Most hedge funds and separate accounts report only monthly data.

[2] First ETF incepted January 2008.

IV Risk Profile

Because most long-short strategies maintain some degree of equity exposure, their performance relies more heavily on the stock market environment than other alternative strategies. Although some hedge fund managers can switch between long and short exposure, most long-short equity hedge funds and mutual funds tracked by Morningstar tend to stay net long. Only a few of 26 long-short equity mutual funds with a four-year track record (and thus around during the 2007-09 financial crisis) have actually taken a net-short portfolio stance at some point in their history. Caldwell and Orkin Market Opportunity COAGX is one such example.

As a result of this net positive equity exposure, long-short equity strategies generally remain highly correlated with equities. The 10-year correlations of long/short equity hedge funds and mutual funds to the S&P 500 Index both fall above 0.80 (using monthly data through September 2011). These correlations rise even higher during times of financial duress. Figure 4 below demonstrates that the three-year correlations between each vehicle and the S&P 500 are slightly higher than longer-term correlations. The table also illustrates that the average long-short equity strategy maintains a lower beta exposure to the equity market than traditional long-only products (which exhibit betas close to 1.0). A lower beta means that long-short equity funds will lag long-only strategies when equities are trending upward but should also hold up much better during periods of market turmoil. Over time, a strategy that avoids significant drawdowns will likely outperform those that don't. The fact that long-short equity funds lost much less than the market during the 2000-02 and 2007-09 financial crises explains why mutual funds have outperformed the S&P 500 over the past 10 years. (Figure 5).

In general, good environments for long-short stock-picking strategies are ones in which stock markets are trending up but with significant dispersion among stocks, within and across sectors and geographies. Stock correlations, as evidenced by the S&P 500 Implied Correlation Index, has been steadily increasing since 2009.

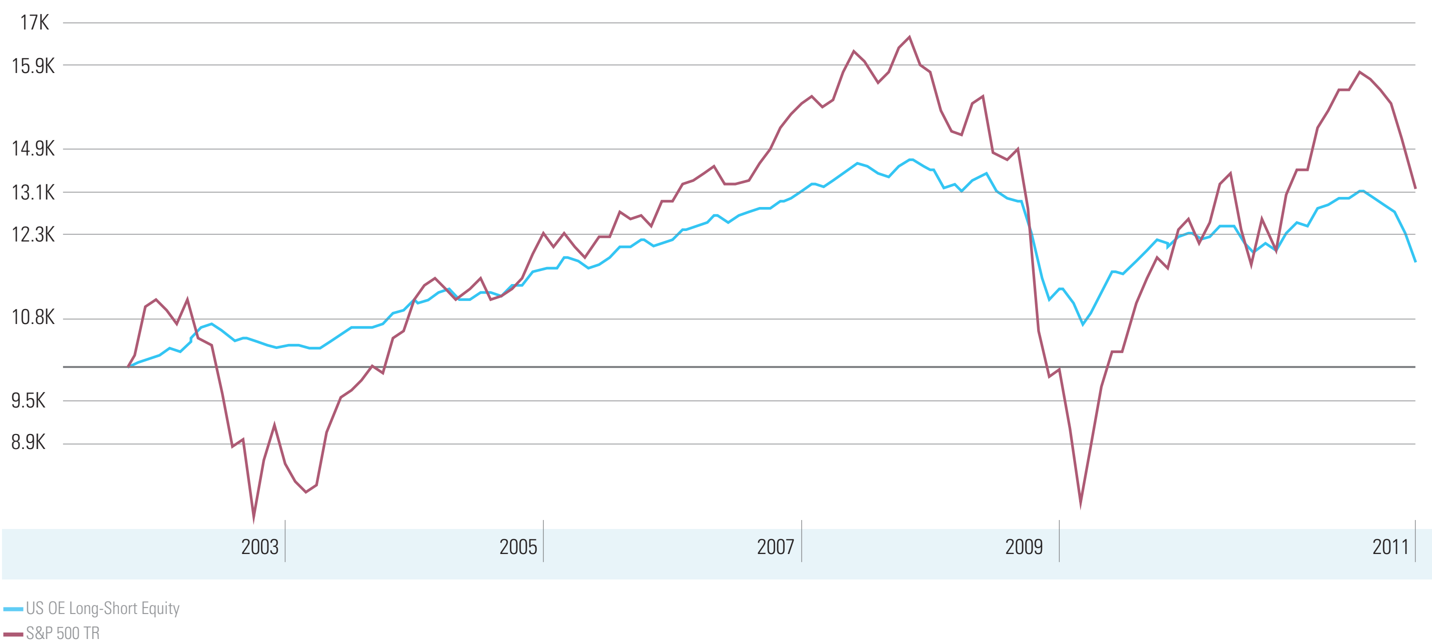
Figure 4 **Beta/Correlations to the S&P 500 by Long-Short Equity Vehicle***

	3-Yr Beta	5-Yr Beta	10-Yr Beta	3-Yr Correlation	5-Yr Correlation	10-Yr Correlation
Hedge Funds	0.53	0.54	0.51	0.92	0.90	0.87
Separate Accounts	0.35	0.34	0.26	0.89	0.89	0.76
Mutual Funds	0.37	0.37	0.28	0.96	0.95	0.82
ETFs[1]	0.52	–	–	0.80	–	–

*Using monthly data through Sept. 2011.

1 First ETF incepted Jan. 2008

Figure 5 **Growth of $10,000 Chart**



Source: Morningstar Direct

V Fees

Fees vary widely across these different structures both in their overall level and the way they are assessed (see Figure 6). Because fees eat into a fund's returns, investors cannot afford to overlook this part of the due-diligence process.

The most notorious fee structures are undoubtedly those of hedge funds that routinely charge "2 and 20": a 2% annual management fee on assets under management combined with a 20% performance fee charged on profits, on top of any operational expenses. Of the 2,262 long/short equity hedge funds that reported fee information to Morningstar, the average fees are 1.52% and 19.05%, respectively. However, this can vary significantly: Nearly 50 funds do not charge an incentive fee, whereas two funds each charge incentive fees of 50%. That's an enormous hurdle for any investor.

Separate account fees also vary widely and are negotiated based on the level of assets invested. Separate accounts report "management fee tiers" to Morningstar's database, where each "tier" represents a certain dollar-amount of assets invested with the manager. Investors with more money invested will typically pay a lower overall percentage fee because of this breakpoint structure. For the 57 long-short equity separate accounts that report fee information to Morningstar, the average management fee charged is 1.86%. About half of these accounts also charge performance fees, in the range of 0.25% to 20%.

Mutual fund and ETF fees are reported as expense ratios, which calculate operating expenses as a percentage of fund assets. The ratio has several components, the largest of which is usually the management fee. Other costs include legal expenses, administrative fees, as well as marketing and distribution costs (referred to as 12b-1 fees). Transaction costs incurred by the fund, however, are generally not included in the calculation of the net expense ratio. (Shorting costs, dividends and interest paid on shorts, are included in the gross expense ratios, however). The average annual report net expense ratio of a long-short equity mutual fund is 2.15% (as of Sept. 30, 2011), although the range is quite wide—4.01% for Royce Opportunity Select Fund ROSFX and 0.70% for Gateway GTEYX. Investors will find the costs associated with ETFs and ETNs even more appealing. The average expense ratio for a long-short equity ETF is just 1.39%.

In August 2010, Morningstar released a study showing that in aggregate, low-cost, long-only mutual funds experienced better returns than high-cost funds across all asset classes, during various periods from 2005 through March 2010. Although cheaper is usually better over the long term, it's not always better. A fund's cost should always be viewed in light of its performance.

Figure 6 **Average Fees of Long-Short Equity Stragtegies**

	Management Fee	Performance Fee	Expense Ratio
Hedge Funds	1.52%	19.05%	—
Separate Accounts	1.86%	—	—
Mutual Funds	—	—	2.15%
ETFs	—	—	1.39%

VI Taxation

Taxes are an important consideration of any investment. Long/short equity hedge fund investors must file a K-1 partnership tax form, which could take months to obtain and could also result in non-tax-deductible expenses. Hedge funds structured as limited partnerships generally pass-through the net tax characteristics of their underlying investments and are taxed each year regardless of distributions.

Mutual fund investors generally file a 1099-DIV form. Alternative mutual funds are typically taxed as other mutual funds, on both fund distributions (dividend and net capital gains, taxed at ordinary income and long-term capital gains rates, respectively) and share sales (long-term or short-term capital gains) if held outside of tax-deferred accounts. Unlike traditional mutual funds, however, alternative mutual funds tend to trade more frequently and therefore may incur higher tax liabilities. Like hedge funds, mutual funds also generally pass-through the net tax characteristics of their underlying investments, with the exception of commodity futures (taxed at ordinary income rates).

ETFs are often the most tax-efficient investment vehicle for long-only stock investing. The efficiency breaks down, however, for long-short strategies, which trade more often and do not always redeem shares in-kind. Long-short ETNs, on the other hand, are tax-efficient as long as the investor holds them long enough (to obtain long-term capital gains treatment).

VII Use in a Portfolio

In order to demonstrate how a long-short equity fund can change the overall risk/return profile of a portfolio, we constructed several model portfolios, using the S&P 500 as a proxy for the stock portion, Barcap US Aggregate Bond Index for the bond portion, and Morningstar MSCI Security Selection North America Hedge Fund Index for the long-short equity portion. We tested a 5%, 10%, and 20% historical allocation to long-short equity, funded by the stock portion of a traditional 60%/40% portfolio. The results show that a greater allocation to long-short equity improved the portfolio's risk-adjusted returns over the past 10 years.

Figure 7 **Long-Short Equity Model Portfolio (through Sept. 2011)**

Asset Allocation	10-Yr Return (Annualized)	10-Yr Std. Dev. (Annualized)	10-Yr (Annualized) Sharpe Ratio	10-Yr (Annualized) Sortino Ratio	10-Yr Morningstar Risk-Adjusted Return
60%/40% Portfolio	4.44	9.41	0.30	0.42	1.51
5% Long/Short Equity	4.57	8.98	0.33	0.46	1.72
10% Long/Short Equity	4.70	8.56	0.35	0.50	1.92
20% Long/Short Equity	4.95	7.74	0.41	0.58	2.31