



Skewing Your Portfolio With Managed Futures

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The active/passive management [debate](#) usually centers on whether managers earn their fees by outperforming an index like the S&P 500, but there is another argument for allocating some of your portfolio to alternative assets. If they are uncorrelated to stocks and bonds then the diversification can help you more than the fees will hurt you, up to a point at least.

Managed futures, about 5% of the hedge fund industry, are a “niche within a niche” that can be difficult to understand, but they’ve outperformed both stock markets and other hedge fund strategies during market downturns for decades.

“When one examines all the declines in the S&P 500 that were greater than 6% since 1980, one finds that managed futures programs have outperformed the S&P 500 by 17% on average during each time of major equity loss,” write Hilary Till and Joseph Eagleeye of **Premia Research**.

**Declines in the S&P 500 of Greater
Than 6% Since 1980**

| | | <u>S&P 500</u> | <u>Managed Futures a</u> | <u>Hedge Funds b</u> |
|----|----------------------|--------------------|------------------------------|--------------------------|
| 1 | Sep-Nov 1987 | -30% | 8.5% | |
| 2 | Apr-Jul 2002 | -20% | 10.6% | -4.4% |
| 3 | Jun-Sep 2001 | -17% | 1.9% | -3.8% |
| 4 | Jul-Aug 1998 | -15% | 5.8% | -9.4% |
| 5 | Feb-Mar 2001 | -15% | 4.0% | -3.8% |
| 6 | Jun-Oct 1990 | -15% | 19.4% | -1.9% |
| 7 | Sep-Nov 2000 | -13% | 2.7% | -6.4% |
| 8 | Sep 2002 | -11% | 1.9% | -1.5% |
| 9 | Dec 2002 to Feb 2003 | -10% | 12.1% | 0.5% |
| 10 | Aug-Sep 1981 | -10% | 0.1% | |
| 11 | Feb-Mar 1980 | -10% | 10.3% | |
| 12 | Dec 1981-Mar 1982 | -10% | 7.9% | |
| 13 | Sep 1986 | -8% | -4.2% | |
| 14 | Dec 1980-Jan 1981 | -7% | 9.5% | |
| 15 | Feb-Mar 1994 | -7% | 0.3% | -2.1% |
| 16 | Jan-Feb 2000 | -7% | 0.9% | 6.8% |
| 17 | Jan 1990 | -7% | 3.2% | -2.1% |
| 18 | May-July 1982 | -7% | 1.4% | |
| 19 | Jul-Sep 1999 | -6% | -0.5% | 0.7% |
| | Average | -12% | 5% | -2% |

a: CISDM (Center for International Securities and Derivatives Markets) Trading Advisor Qualified Index.
b: HFR (Hedge Fund Research) Fund Weighted Composite Index.

Source: Horwitz, R. (2002, December 11) "Constructing a 'Risk-Efficient' Portfolio of Hedge Funds." Kenmar Global Investment, RiskInvest 2002 Conference Presentation, Boston, MA., Slide 8 (with data updated through February 2003).

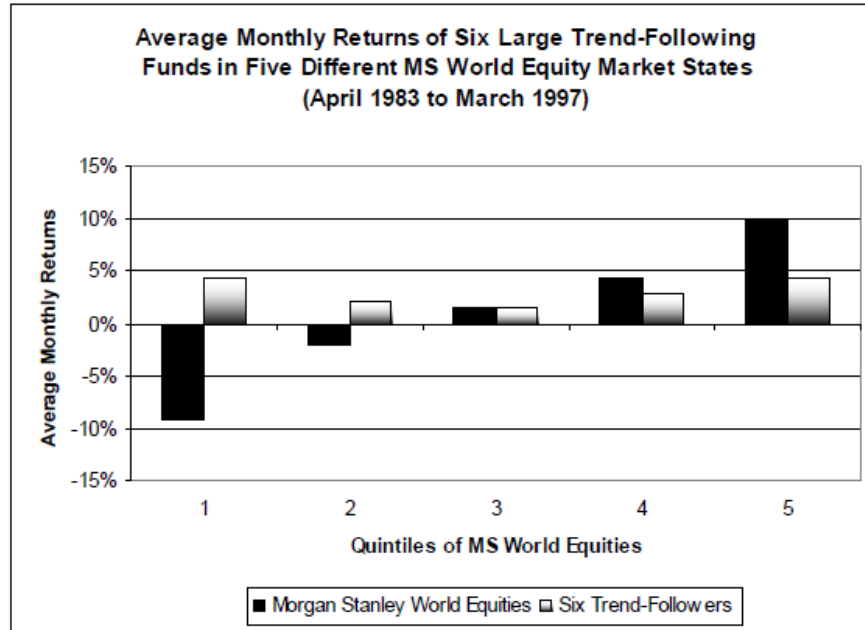
<http://www.valuwalk.com/wp-content/uploads/2015/07/sp500-v-MF-v-HF.png>

Managed futures traders lever into winning traders

While there are discretionary managed futures (or commodity trading advisors, CTAs) traders who rely on their ability to predict where the market is headed, Till and Eagleeye are focused on the larger group of trend following traders. These algo traders screen the market for possible trends and then end the trade as soon as it starts moving against them, while leveraging the trades that move in their favor.

"The good managers will quickly cut losses and increase their exposure to winning trades. In a sense, the alpha may come from this dynamic leverage," explain Till and Eagleeye.

So it doesn't matter whether the trend is positive or negative as long as it is strong enough for managed futures traders to identify and lever into it. That means managed futures returns look like a collar, low when other markets are calm and high when markets either take-off or crash.



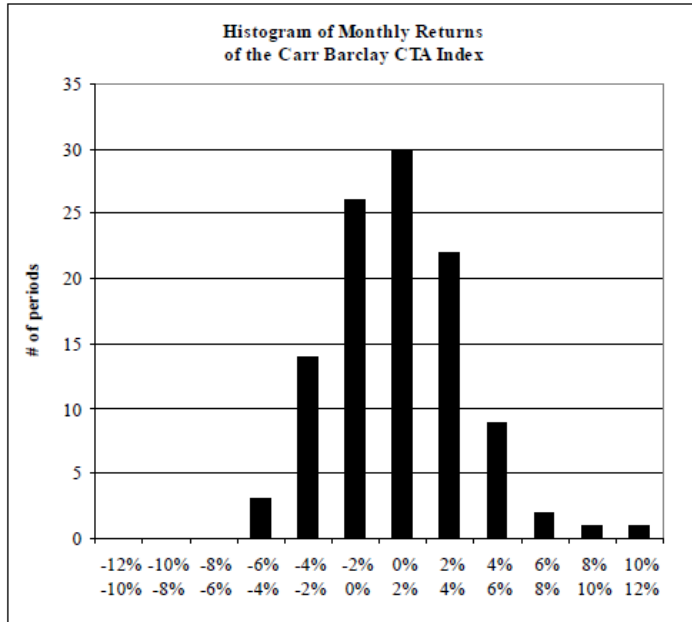
MS: Morgan Stanley

Source: Fung, W. and D. Hsieh. (1997) "Survivorship Bias and Investment Style in the Returns of CTA's. The Information Content of Performance Track Records." Journal of Portfolio Management, Vol. 24, No. 1, Exhibit 2.

<http://www.valuewalk.com/wp-content/uploads/2015/07/MS-collar-like-returns-0715.png>

Managed futures offer investors a positive skew

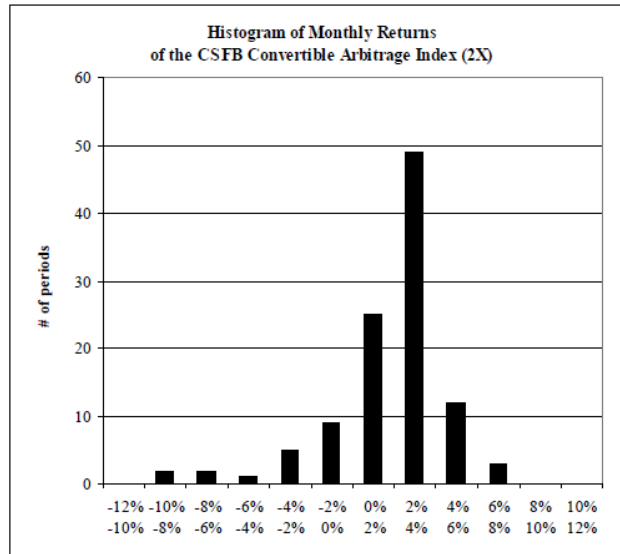
There are other alt strategies with low market correlations, and Till and Eagleeye acknowledge that if you just compare Sharpe ratios managed futures look worse than other hedge fund strategies. What really sets managed futures apart is that they are positively skewed. A successful trend-following strategy will necessarily initiate a lot of trades, and generally will have a lot of short-lived traders that end in a loss. But a handful of strongly levered winning trades more than makes up the difference.



Source: Molinero, R. (2003, April 10) "Rotella Capital Management." Professional Risk Managers' International Association (PRMIA) Seminar Presentation, Chicago, IL, Slide 10.

<http://www.valuewalk.com/wp-content/uploads/2015/07/MF-skew-0715.png>

On the other hand, a skilled, concentrated stock picker may be able to identify outperforming stocks reliably, but they will occasionally suffer big losses when a large position turns out to be a value trap. Till and Eagleeye present evidence from convertible arbitrage, but many other alt asset strategies have a similar 'short-option-like' return profile.



Source: Molinero, R. (2003, April 10) "Rotella Capital Management." Professional Risk Managers' International Association (PRMIA) Seminar Presentation, Chicago, IL, Slide 10.

<http://www.valuwalk.com/wp-content/uploads/2015/07/convertible-arbitrage-skew-0715.png>

"There is a trade-off between improving a portfolio's mean-variance characteristics and taking on more risk of rare, but large losses." they write.

So the idea isn't just that managed futures diversify your portfolio in the CAPM/mean-variance sense, but that they offset the [tail risk](#) that isn't captured by a strategy's Sharpe ratio.

About the author

Michael has a Bachelor's Degree in mathematics and physics from Boston University and Master's Degree in physics from University of California, San Diego.

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