Barclay Trading Group, Ltd.

special report

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How Vulnerable Are Hedge Funds?

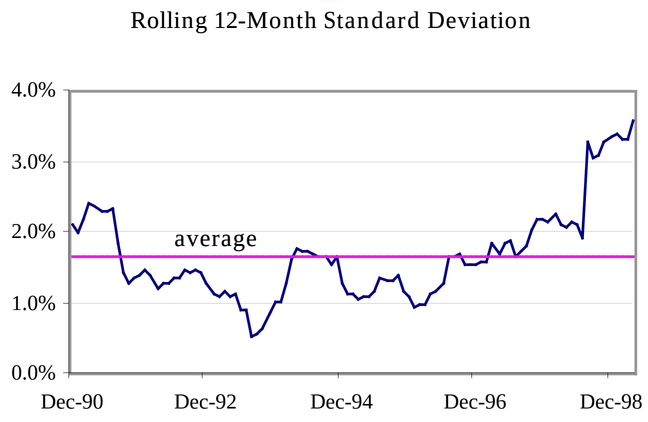
As the equities markets climb to new highs and the volatility of hedge fund returns increases, so does the need for an effective diversification strategy.

Several recent studies have suggested what many investors already suspected—hedge funds, in general, offer very little protection against market downturns. For example, in August, 1998, when the S&P declined more than 14%, hedge funds were down about 9%. Proponents of hedge funds will argue that since not all hedge fund strategies are the same, and some are highly correlated with the stock market, a portfolio approach to hedge fund investing is more appropriate. Yet, the HFRI Fund of Funds Composite also declined last August by nearly 8%.

The challenge has been to identify an ideal diversifier which brings an uncorrelated component to the multi-fund portfolio without introducing problematic side-effects.

Research suggests that adding a managed futures component to a portfolio of hedge funds contributes to overall diversification. Over the long-term, returns to managed futures have demonstrated low correlation with those of hedge funds, as well as other asset classes.

HFRI Fund. Wtd. Composite



However, this solution raises a number of concerns. One is the considerable cost associated with selecting and monitoring managers of another investment universe. Another is managed futures' reputation for excessive volatility and high fees, which has limited its attractiveness to investors.

What would the ideal "hedge" look like? As mentioned earlier, it's performance would be uncorrelated with the portfolio at large. It should protect the portfolio from downside returns and maintain positive performance during periods when hedge funds are performing well. And the investment should be easy to track, maintain full transparency and liquidity, and be available on a low cost basis.

An Index Approach

A viable solution is to introduce a managed futures index component to the hedge fund portfolio. The **Barclay Futures Index** is a fully investable benchmark representing the returns of a momentum strategy applied to 25 commercial futures markets. Adding a BFI component to a hedge fund portfolio should reduce the portfolio's overall volatility, significantly improve risk-adjusted performance, and provide protection against capital asset under-performance, which often impairs overall hedge fund performance.

The BFI is not correlated with traditional investment benchmarks, such as the S&P 500, nor with hedge funds. It exhibits relatively high correlation with actively managed futures, though its risk adjusted performance is superior.

Correlation Monthly Returns

(Jan-90 - Mar-99)

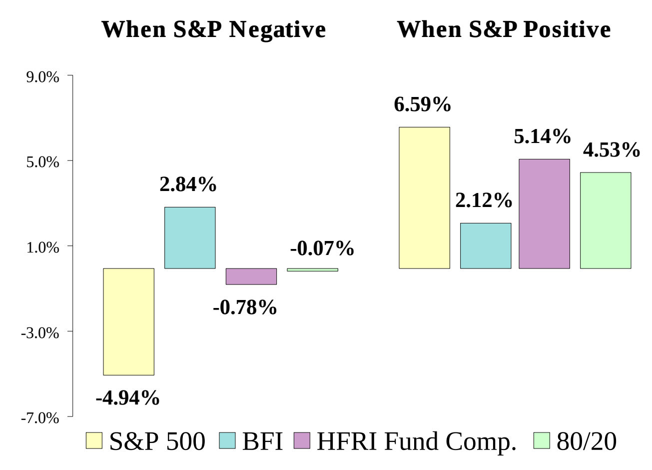
	S&P	*BFI*	*CTAs*	*HFs*
S&P	1			
BFI	-0.269	1		
CTAs	-0.107	0.441	1	
HFs	0.713	-0.289	-0.125	1

The Barclay Futures Index was developed by Trilogy Capital Management with the cooperation of an advisory committee that included senior representatives from major pension plans, banks, investment managers and pension consultants. The BFI effectively addresses the concerns investors have expressed about managed futures: it is unleveraged, fully transparent in its methodology, and is a low cost alternative to active management.

Achieving Diversification

Finding an asset that provides a safety net when the market is doing badly and provides positive returns when the market is strong is not always easy. Consider the chart below.

Average 3-mos Rolling Return

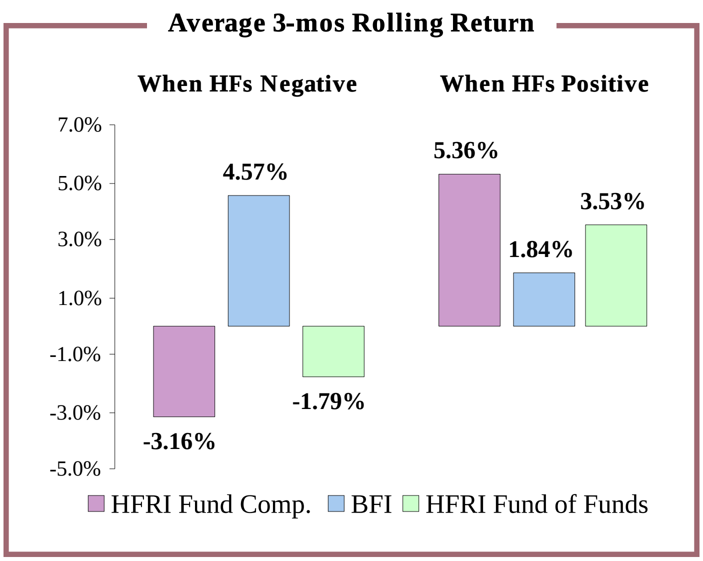


For the period March 1990 through 1999, whenever the 3-month rolling returns to the S&P 500 were negative, hedge funds, on average, also declined. The BFI, however demonstrated its value during down S&P periods, returning on average 2.84%, and yielding 2.12% during positive S&P periods. A portfolio of 80% hedge funds and 20% BFI reduced the downside performance to near zero, and returned 4.5% when the market was strong.

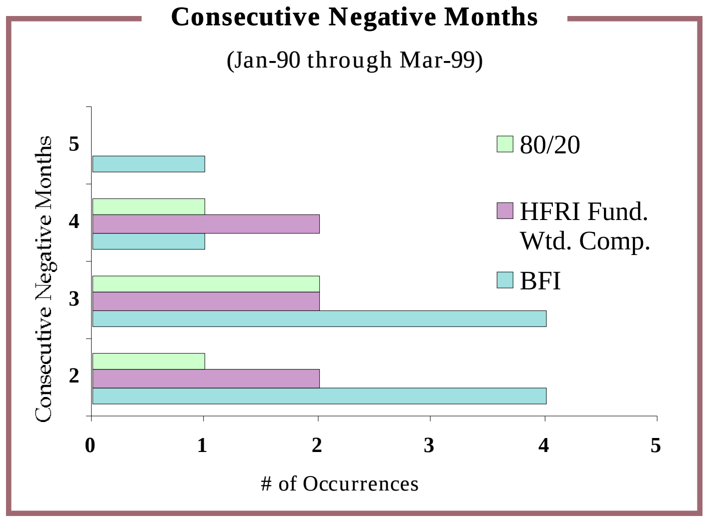
Consistent with other recently published research, managed futures, represented in the table to the left by the BFI and the Barclay CTA Index, demonstrated low (negative) correlation with the S&P 500. Hedge funds, represented by the HFRI Fund Weighted Composite, presumably would not provide diversification benefits to an otherwise traditional portfolio, based on the historically high correlation with equities.

Reducing Negative Performance

Hedge fund proponents advocate a multi-fund approach in order to reduce exposure to funds that rely on equities markets for their returns. However, when periods of negative and positive hedge fund performance were examined separately, the BFI did a better job than the multi-fund approach in cushioning the downside, as demonstrated by the following chart.



Of course, the only thing more unpleasant than reporting a down month is reporting consecutive negative performance. Since the BFI's returns generally are not dependent upon those of hedge funds, including the BFI in a multi-funds portfolio reduces the number of consecutive periods of negative returns, as demonstrated in the chart above right.



The BFI can also add significant downside protection, reducing both the percentage of negative quarters and the average and maximum negative return as compared to hedge funds alone. Consider the table below, which illustrates the negative 3-month rolling returns for the BFI as compared to the Barclay CTA Index, two hedge fund indices, and a portfolio consisting of 80% HFRI Fund Wtd. Composite and 20% BFI.

Comparison of Negative Performance

	no. neg.	% neg.	avg. neg.	max. neg.
BFI	28	25.69%	-1.74%	-5.32%
HFRI Fund. Wtd. Comp.	16	14.68%	-3.16%	-9.54%
HFRI Fund of Funds	15	13.76%	-3.77%	-11.70%
Barclay CTA	39	35.78%	-2.31%	-8.70%
80/20	15	13.76%	-1.84%	-6.14%

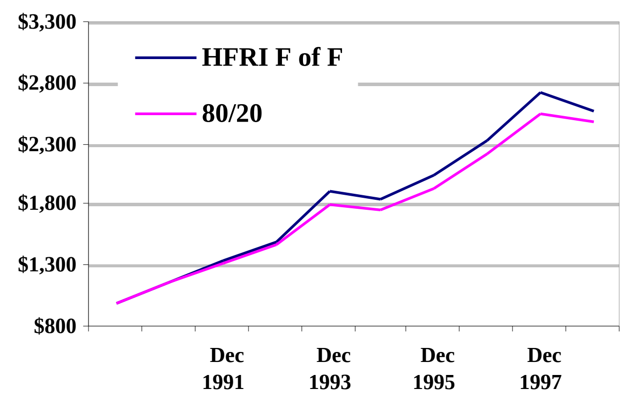
Based on 3-month Rolling Returns (Jan-90 through Mar-99)

Naturally, the addition of a diversifying component may reduce absolute returns somewhat. However, when combined with a portfolio of hedge funds, the BFI demonstrates its value by improving risk-adjusted performance.

The table and chart opposite show that a 20% allocation to the BFI reduced the portfolio's standard deviation by 170bps per annum and improved the Sharpe ratio (risk-adjusted returns). Adding the BFI also maintained 96% of the non-diversified portfolio's terminal wealth.

Comparison of Absolute Returns

The value of $1000 invested Jan-90 through Dec-98



	HFRI Fund of Funds	BFI	80/20
Cpd. Annl. Rtn.	11.13%	8.69%	10.69%
Std. Dev.	9.97%	4.33%	8.26%
Sharpe	0.619	0.864	0.694

About Barclay, Trilogy and Index Publication

Barclay Trading Group Ltd. specializes in the collection, analysis and distribution of CTA and hedge fund performance data. Barclay is also the developer of the Barclay MAP software, a performance analysis tool and proprietary database of performance data for hedge funds and CTAs.

Trilogy Capital Management LLC was founded in 1995 to develop futures-based investment solutions geared to the needs of institutional investors. Trilogy is a registered trading advisor and commodity pool operator under the Commodity Exchange Act, is a member of the National Futures Association, and is a registered investment advisor under the Investment Advisors Act of 1940.

Index publication. The BFI is published quarterly in the *Barclay Institutional Report*, distributed by the Barclay Trading Group, Ltd. Monthly Index data is available on Bloomberg (BARCFUTR <Index>) or the Barclay website (www.barclaygrp.com).

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