

BEING SELECTIVE WITH STATISTICS

Using stand-alone data to assess hedge funds does portfolios a disservice.

Hedge funds are often chosen—at least in part—on the basis of their stand-alone statistical properties such as overall market correlations, downmarket correlations or drawdown percentages. However, the use of stand-alone statistics to filter hedge funds in a search can result in inappropriate fund choices. Hedge funds, like any other investment, should be chosen based on their expected contribution to the overall portfolio and not on the basis of their individual statistical characteristics.

An institutional hedge fund search usually begins with establishment of the investor's overall portfolio objectives and search criteria, some of the latter relating to the organizational characteristics of hedge fund managers and some being "hard" statistical criteria. In addition to return, volatility and beta targets, statistical search criteria often focus on downside risk—expressed as maximum or minimum exposures to specific investment strategies—an improved kappa statistic, maximum correlations to key broad markets, minimum drawdowns and so forth. They incorporate values which, it is assumed, will ensure that the investor's overall risk and return objectives will be supported when the hedge fund is added to the larger investment portfolio.

Hedge funds not meeting the criteria are filtered from the search database. A short list of funds is prepared from the remainder, usually after further consideration of the soft search criteria. The investor then chooses one or more funds, based on presentations from the fund managers or, possibly, following visits to the managers' offices.

There is a key element missing from this "filtering-and-selection" approach to hedge fund searches: consideration of the potentially quite different interactions between individual hedge funds and the investor's underlying portfolio. In effect, this search process assumes that, for any two hedge funds with different values for a given stand-alone statistic, the fund with the "better" value will necessarily have a better effect on the overall portfolio. This assumption can be quite wrong.

In the case of correlation filters, assume an investor

seeks to reduce their portfolio's correlation to the S&P 500 index by investing in hedge funds, and stipulates that only hedge funds with an S&P 500 correlation of less than 0.25 will be considered. On a stand-alone basis, a hedge fund with a correlation of 0.47 and would be excluded from the search, while another with a stand-alone correlation of 0.19 would be included. However, when combined with the S&P 500, the first hedge fund produces a 50/50 portfolio with a lower S&P correlation than the second fund. The filtering of hedge funds on the basis of their stand-alone correlation to the S&P 500 therefore does not support the investor's objective.

A similar situation occurs with downside correlation filters. An investor seeks to reduce potential losses by searching for hedge funds with a low downside correlation to the S&P 500. However, the investor is especially wary of funds with a low overall S&P correlation but which become "market followers" when equity returns are poor. The investor studies a hedge fund which has exactly the characteristics he is seeking to avoid—low overall correlation to the S&P 500 index, high correlation in S&P down markets—but which also offers positive alpha in down months, making it a suitable choice.

Finally, in the case of limiting portfolio drawdowns, an investor seeks to reduce potential drawdown (peak-to-trough loss) by investing in hedge funds which have small drawdowns—those with larger drawdowns are excluded from the search. While the investor identifies several funds that improve the drawdown of the balanced fund, the one with the worst stand-alone drawdown statistic might also be the most effective in improving the drawdown of a typical balanced fund. This reflects the fact that the drawdown's timing can be as important as its size: if the fund's drawdown occurred at times when the rest of the portfolio was performing well and when it was performing poorly, the fund's return will be good overall.

We conclude that stand-alone statistics are unreliable indicators of a hedge fund's ability to meet the investor's broad portfolio objectives. ■