

Shame on the Sham The Due Diligence Dreg in the Hedge Pledge



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On July 6, 2005 a commentary was posted to Albourne Village, a Web site for hedge fund professionals, by Dr. John S Wisnioski, a hedge fund veteran and Principal of Gan Consulting Ltd. Dr. Wisnioski states:

“The following describes my experience with three multi-billion dollar hedge funds-of-funds and their due diligence and allocation processes with my former hedge fund manager.

...The big funds-of-funds have such constant and substantial inflows each month that their need is to find valid counterparties and then put their capital to work. The fund-of-funds business, again in my humble view, is becoming more like a 'commodity' investment business where the scale is so great that protracted due diligence is not the most important order of the day. Capacity, decent manager performance, marketing the fund-of-funds product and keeping the whole thing under control are the pressing exigencies.

...We are not advocating avoidance of such manager due diligence, but rather we are attempting to shed light on what really happens in practice during the investment process for many of the more established funds and funds-of-funds in contrast to emerging or start-up managers.”

Due diligence can be distilled down to two crucial questions:

- (1) Do we like the strategy that this manager employs?
- (2) Does this manager execute the strategy well?

Common hedge fund due diligence, as it is practiced today, answers the 1st question with hot performance, and accepts conceit and concealment as answers to the 2nd.

This is a shame because investors have relied upon and paid for skill, but have instead been shammed by fake due diligence. Skill is the only glue that can hold together the promise of low risk with the expectation of good returns. No one wants a below average doctor. In the hedge fund industry there's nothing worse than an average manager. The challenge to successful hedge fund investing, for both individual investors and fund-of-funds, is identifying managers who have skill, who are above average. Long-short investing is superior to long-only, but not if it is provided by an average manager. The search for skillful managers is a difficult task that is complicated by the use of performance evaluation tools that suffer from documented deficiencies. An integral part of a true due diligence process is getting the numbers to tell their most important stories, confirming subjective judgments about the talent of the people and the wisdom of their processes and philosophy. This story is virtually always told by contrasting a manager's investment return to a peer group and/or index, but this simply does not work for hedge funds. It's time to recognize the deficiencies of these popular approaches so we can open up consideration to new contemporary methodologies. Marketing compensates for mediocrity in the money management game, at the expense of the client. In the following we describe the problems with peer groups and indexes, and offer a solution to these problems.

The Problems with Peer Groups

Peer groups are unreliable backdrops for evaluating hedge fund performance. Everyone who has earned the CFA (Chartered Financial Analyst) designation has

learned the problems with peer groups: they are loaded with biases. But biases are not the major problem with hedge fund peer groups. The fact that hedge funds are unique is the big problem. Dr. Harry M. Kat [2003] documents the lack of correlation among funds in the same peer group. For example Kat finds correlations to be a mere 0.23 among funds in market neutral peer groups, substantiating the fact that these funds are different from one another and therefore should not be compared to one another. Accordingly, it is virtually impossible to construct an appropriate peer group for a specific market-neutral manager. Kat also finds low correlations across hedge fund indexes for the same strategy, thereby establishing the unreliability of hedge fund indexes, which, of course, are based on faulty peer groups. Hedge fund indexes are discussed in the next section.

Malkiel and Saha [2005] created a stir with their criticisms of hedge fund peer groups, and the hedge fund industry responded with their own criticisms of Malkiel and Saha's lack of understanding of the industry. Both are right. Malkiel and Saha identified some symptoms of the disease but failed to properly diagnose this disease as not only a myriad of biases but also, and most importantly, the uniqueness of hedge funds.

The Problems with Indexes

Indexes serve three major purposes:

- Benchmarks for evaluating investment manager performance

- Passive investment portfolios

Barometers of growth in segments of the market

Hedge fund indexes are generally being used for all 3 purposes, but really should be used only as a barometer of industry and strategy performance, and even then the user should be very cautious.

- ✚ Benchmarks: As described in the previous section, funds within a peer group are not correlated to one another. Hedge fund indexes are amalgams of hedge fund peer groups. Accordingly, an individual manager will win or lose to a hedge fund index primarily because of his differences rather than because of skill. In addition, Kat [2003] has documented dissimilarities among the various indexes, complicating the choice of index. For example, there are material differences between “investable” indexes (i.e. those that are actually available for purchase as investment product) and generalized indexes.
- ✚ Portfolios: Passive investment portfolios are designed to capture the natural return, or essence, of a market, eliminating any potential for value added or subtracted by skill or lack thereof. But skill is the essence of hedge fund investing; eliminate that & you’re left with mediocrity at best, which is what you’re trying to get away from in the 1st place. “Investable” indexes are not passive product in this usual sense of the word, but are instead funds of funds constructed by committee for diversification. But here again there is potential to diversify away the benefit, namely skill. Replicating techniques suffer from the same problem. Replication captures beta, not alpha.
- ✚ Barometers: Hedge fund indexes do work as barometers of strategy and industry performance because they measure the performances of broadly diversified portfolios of these strategies. In other words, managers should not be evaluated against indexes, but inferences may be drawn from indexes regarding a general sense of success or failure of individual strategies. For example, one might infer that global macro strategies as a group have generally performed well while distressed debt has not. But one needs to be careful because the various hedge fund indexes behave quite differently, so an inference drawn from one index might not to be supported by a comparable index from another provider.

A Better Way

The solution to the problems with peer groups and indexes is actually quite simple, at least in concept. Performance evaluation ought to be viewed as a hypothesis test where the validity of the hypothesis “Performance is good” is assessed. To accept or reject this hypothesis, construct all of the possible outcomes and see where the actual performance result falls. If the observed performance is toward the top of all of the possibilities, the hypothesis is correct, and performance is good. Otherwise, it is not good. In other words, the hypothesis test compares what actually happened to what could have happened. This is accomplished through the use of Monte Carlo simulations (MCS) that generate all of the possible implementations of the hedge fund manager’s strategy. For a detailed description of MCS, see Surz [2005 & 2006]. Monte Carlo simulations are well-known to the alternative investments community. Randomly generated outcomes provide a backdrop for decision making by revealing what could happen under uncertainty. The application of Monte Carlo simulations has been extended to the evaluation of hedge fund performance.

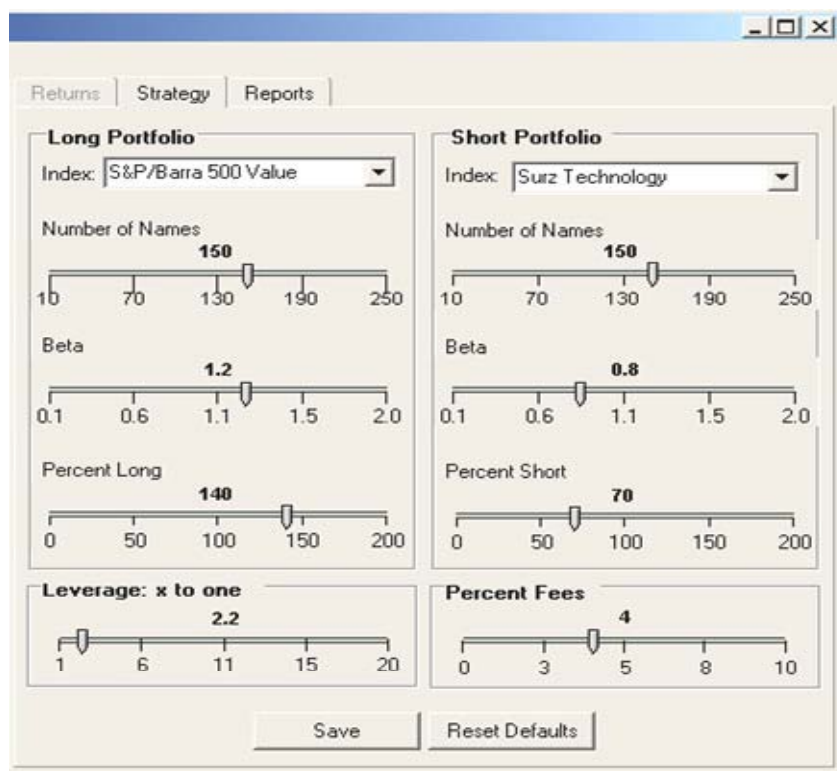
As stated in the introduction, the due diligence process can be distilled down to two crucial questions:

- (1) Do we like the strategy that this manager employs?
- (2) Does this manager execute the strategy well?

Work being conducted in returns-based analysis of hedge funds helps to answer the first question (see for example Fung & Hsieh [2003] and Kovats [2006]). In essence Fung & Hsieh demonstrate that the “beta” of a specific hedge fund can

be replicated with a long-short blend of passive portfolios such as ETFs. We shouldn't pay for beta, but its identification sets the stage for the second question, regarding skill. Monte Carlo simulations provide the answer to the question of manager skill. In constructing a specific custom peer group, Monte Carlo simulations follow the same rules that the individual hedge fund manager follows in constructing his/her portfolio, as shown in Exhibit 1.

Exhibit 1: Hedge fund portfolio construction rules



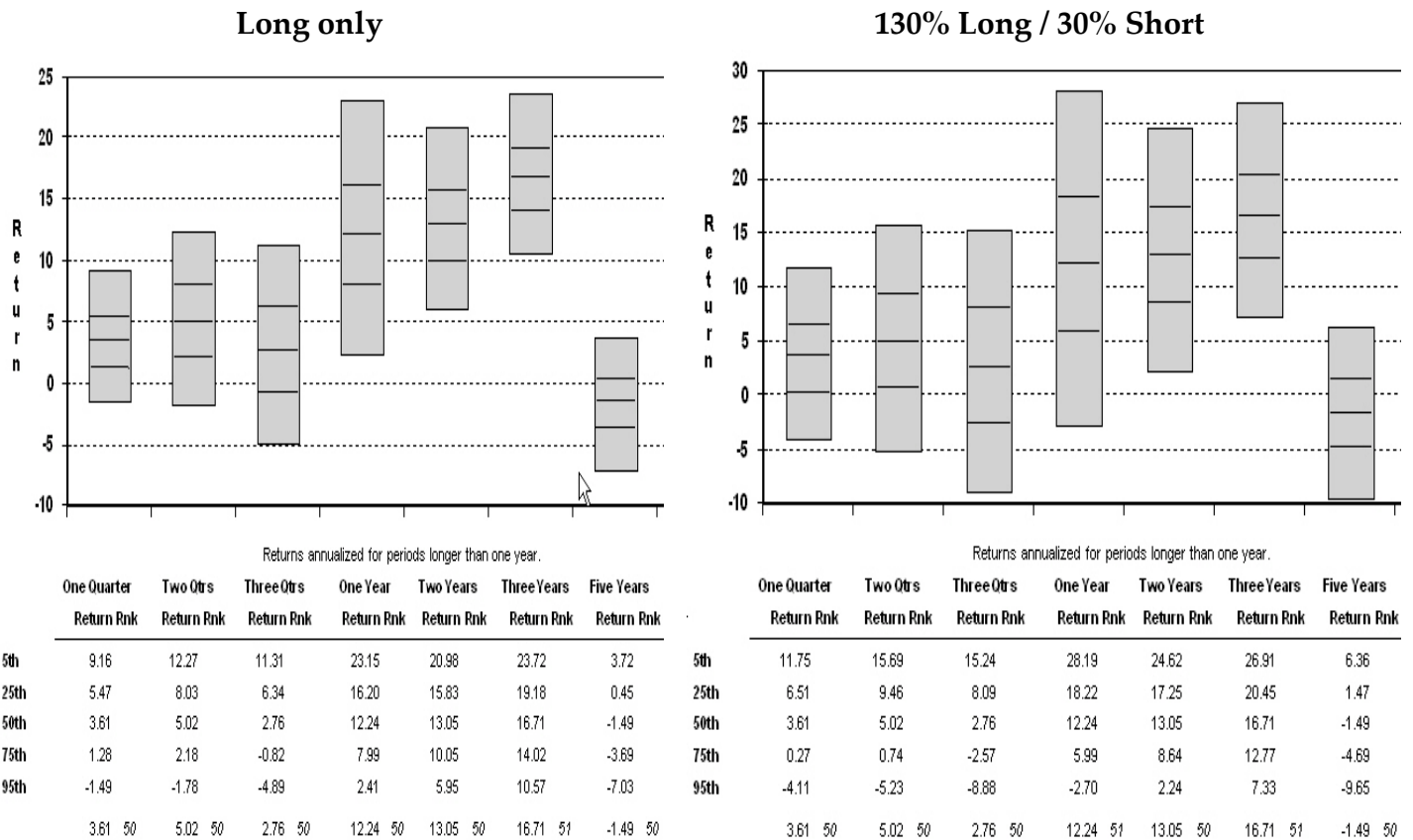
The simulator randomly creates 10,000 portfolios that conform to the same portfolio construction parameters followed by the actual hedge fund manager. Returns-based analyses can be helpful to identifying these construction parameters. Note also that holdings transparency is not required. The result is a scientific and unbiased backdrop for evaluating that manager's performance, as well as a credibility check on the manager's reported return. In a poetic sense the manager is hoisted upon his own petard. A reported return outside the realm of

possibilities is suspicious, and can be explained in one of three ways: the return is in fact extraordinary, the return is fictitious, or the strategy has not been followed. Investors cannot afford unvalidated reported performance, and financial audits do not substantiate reported returns.

A critical examination of long-only managers who add short selling

The press has reported favorably about long-only managers who have added short selling to their process. For example Chernoff [2005] identifies several traditional managers who are offering portfolios that are 130% long and 30% short, thereby maintaining a 100% net exposure. The problem is that investors are only better off if the implementing managers have skill. The following exhibit contrasts the MCS opportunity sets for long-only to those for 130%-long-and-30%-short. The samples are 30-stock portfolios drawn from stocks in the S&P500.

Exhibit 2: Long-only opportunities versus 130% long & 30% short
Periods ending 9/30/05



(Bottom row is S&P500 return & rank)

In interpreting the exhibit, let's start with some things we can figure out without running Monte Carlo simulations. 130/30 is net 100%, so the expected return remains the return on the index. However you've exposed 160% of your assets to the market – 130% long plus 30% short. This exposure increases opportunities and risk. The exhibit shows that the medians of the opportunity sets are unaffected by the addition of short selling because return expectations are unaltered, However, the range of opportunities expands. For example, consider the distributions for the 5 years ending 9/30/05. The 1-in-20 best case (5th %ile) is 3.72 without short selling and expands to 6.3% with it. Similarly, the 95th %ile decreases from -7% to -9.7%, an additional loss potential of 2.7% per year. Interestingly, the standard deviation (not shown) of returns is about the same for 130/30 as it is for long-only. It's the implementation risk, as indicated by the cross-sectional dispersion in the exhibit that makes it essential for the manager to have skill if the investor is to be better off with long-short. For a more robust exposition of hedge fund risk, see Chan, Getmansky, Haas and Lo [2004].

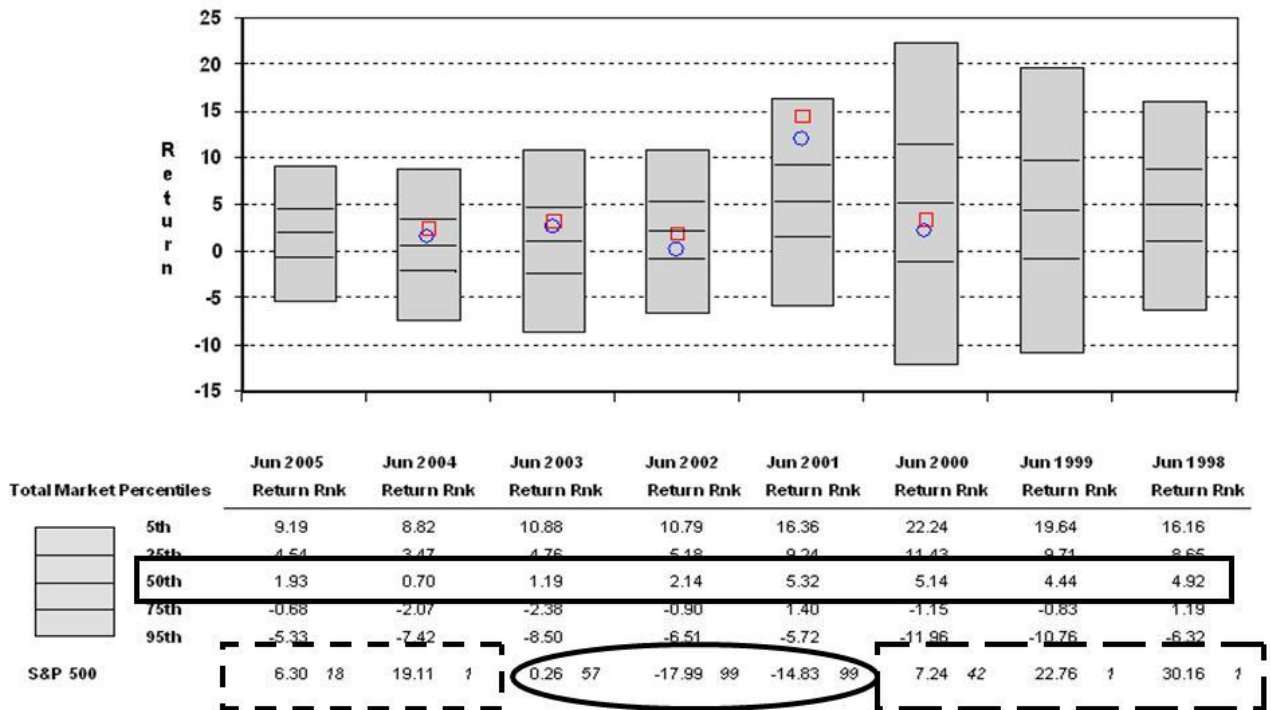
So what's the point? There's no reason to expect performance to improve when long-only managers employ short selling. The benefit is in expanded opportunities, but this is a two-edged sword. Without skill you're as likely to lose more as you are to earn more.

Market Neutral

As another example, the following exhibit applies MCS to evaluate a pure market neutral manager, and it also provides a table of reasonable investor expectations for a pure market neutral strategy during the past several years. The

manager in the exhibit “pair trades” so for every stock that he buys long he takes a short position in a comparable company. The manager also employs rigorous risk controls to keep the portfolio neutral in multiple dimensions: style, sector, dollar, beta, etc. 200 positions are held long and 200 positions are held short, and all companies are in the S&P500.

Exhibit 3: Opportunities in a Pure Market Neutral Strategy
Annual periods ending June 30

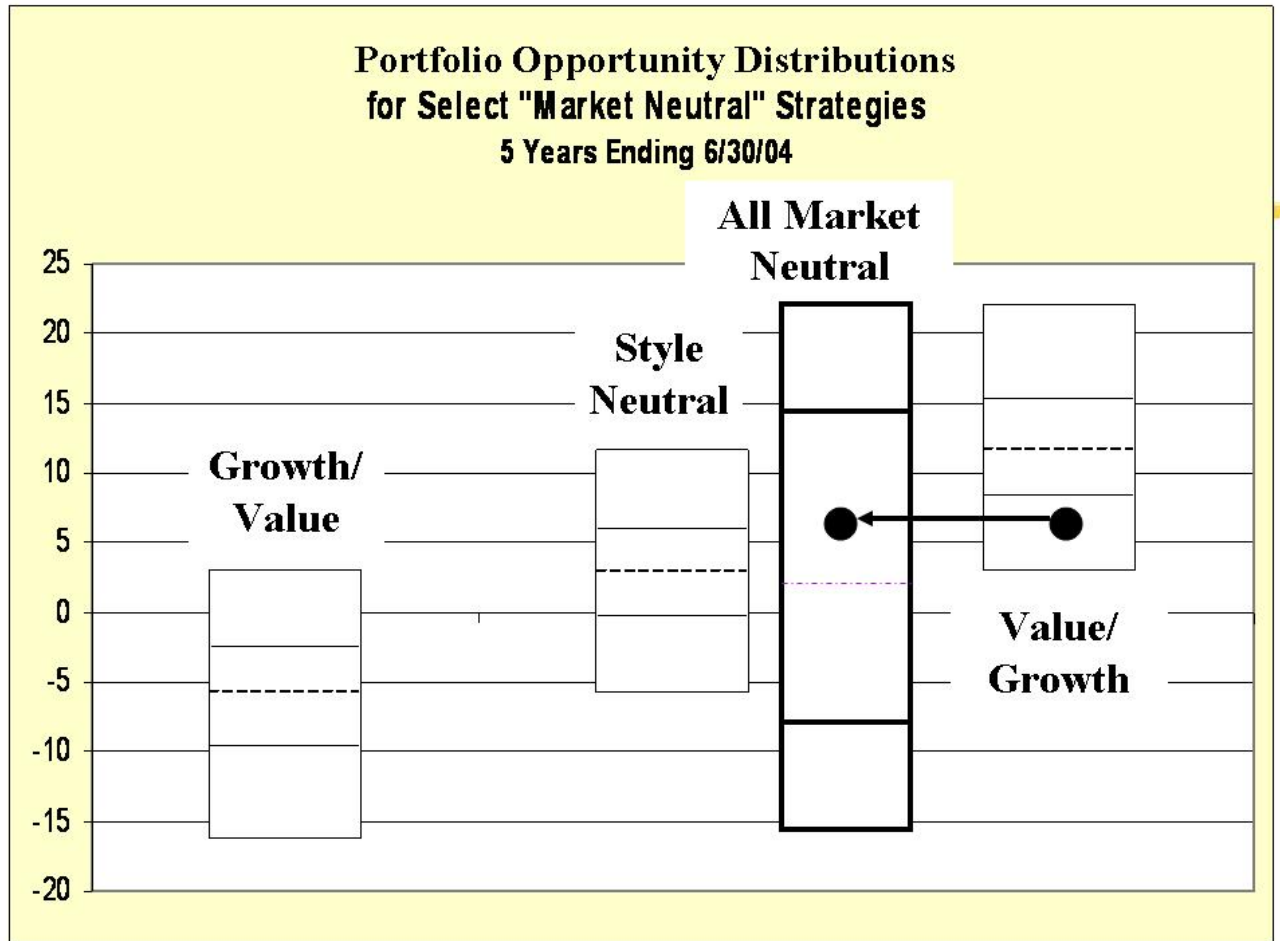


Note the solid box in the middle of the legend. These are the expected annual returns for a pure market neutral strategy, which are low by historical standards, primarily because inflation has been low. The manager shown in the floating bars has generally added value, even earning 15% (13% net, the lower dot) in the year ending 6/30/01. But in most years his returns have been in the 2-5% range. Would you hire this manager? Well, it depends on the alternative. The dashed boxes

shown in the bottom of the exhibit highlight periods when the S&P has performed well and the circle highlights periods when the S&P has performed poorly. The boxes are bad for hedge fund interest because traditional markets are performing well. The circle is good for hedge funds because traditional markets have performed poorly. Recent markets through June, 2005 have been good for traditional investing and bad for hedge funds, contributing to the dissatisfaction with hedge funds,

Now let's see how Monte Carlo simulations work in the search for portfolios of hedge funds, also known as funds of funds. We'll consider the market neutral sleeve of such a portfolio. Big differences exist among the various flavors of market-neutral, and performance results reflect these differences. To illustrate this point, we'll use three market-neutral sub-strategies as examples. All three are dollar-neutral as well as beta-neutral, but they vary in their style neutrality. One is style-neutral, one is long value and short growth, and the third is long growth and short value. The following Monte Carlo simulations show the dramatic differences in the opportunities available to these three sub-strategies over the five years ended June 30, 2004, even though all three are properly designated as market-neutral. We also show a traditional peer group for comparison, as "All Market Neutral."

Exhibit 4: The Difference Customization Makes for Hedge Fund Evaluation



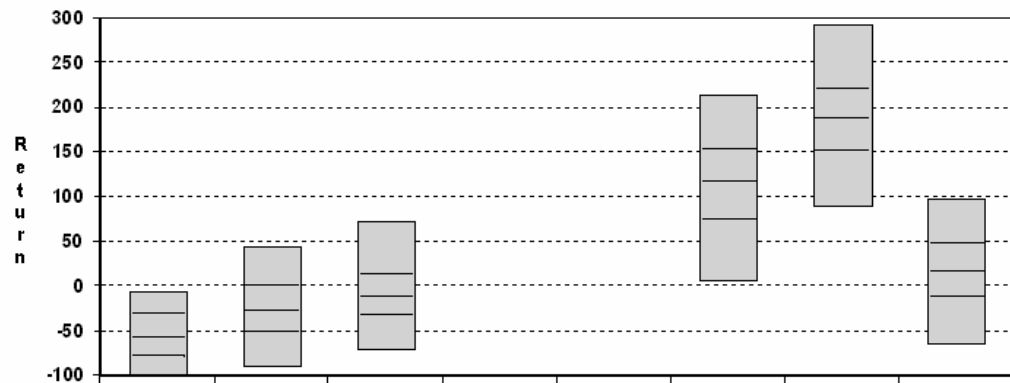
As you can see in the exhibit, a candidate for inclusion in a portfolio has delivered above-median performance when contrasted with the traditional non-customized peer group of all market-neutral managers, making him an apparently viable candidate. However, when viewed with MCS technology, this same performance ranks in the bottom quartile of the candidate's long value/short growth sub-strategy. Without the insights provided by Monte Carlo simulations, even the most sophisticated investors, including fund-of-funds managers, can easily be led to mistake strategic dominance for skill.

These are examples of relatively low risk strategies. There are also plenty of high risk strategies, all promising high returns. The technique exemplified in Exhibits 2 through 4 can also be applied to determine investment suitability, as discussed in the next section.

Suitability

Just because a particular hedge fund has not gone bankrupt does not mean that the probability of bankruptcy was zero. Investors are frequently presented with attractive track records. Behavioral scientists tell us that investors think they can buy these track records. Investors suffer from the illusion that they can buy past performance. They need to keep in mind that where there's smoke, there's fire. Monte Carlo simulations provide the entire range of potential outcomes for a particular hedge fund strategy, so the investor can gain an appreciation for the downside as well as the upside of a potential investment. Exhibit 5 provides an example of this type of analysis. This manager is 100% long Technology and 100% short Small Value, so he's "market neutral" in dollar allocation but certainly not true market neutral, and he employs 3X leverage.

Exhibit 5: History of Opportunities in a Very Dangerous Strategy



		Jun 2005	Jun 2004	Jun 2003	Jun 2002	Jun 2001	Jun 2000	Jun 1999	Jun 1998
Total Market Percentiles		Return Rnk	Return Rnk	Return Rnk	Return Rnk	Return Rnk	Return Rnk	Return Rnk	Return Rnk
	5th	-6.21	45.53	73.31	-100.00	-100.00	214.17	292.71	98.05
	25th	-29.88	0.56	14.15	-100.00	-100.00	154.24	221.38	48.94
	50th	-56.17	-27.40	-11.26	-100.00	-100.00	116.74	187.74	17.82
	75th	-78.79	-50.41	-31.33	-100.00	-100.00	75.37	151.98	-10.99
	95th	-100.00	-89.84	-69.61	-100.00	-100.00	7.32	89.34	-63.38
Surz Technology		1.80 1	22.80 16	7.50 32	-40.80 1	-48.50 1	35.00 87	63.00 99	35.10 37
Surz Small Value		20.70 1	31.70 12	11.30 28	22.50 1	40.20 1	-2.20 98	1.90 99	30.80 40

Two things are worth noting in this example. The expected returns to this strategy were 18%, 188% and 117% in annual periods ending June 1998, 1999, and 2000 respectively. So what would have happened if you had signed on in June, 2000? The probability of losing your entire investment in the following year, and the year after that, is essentially 100% -- you would have gone broke. Had you performed this analysis in 2000 you would have seen that there were potentials for significant losses, including bankruptcy, in years prior to 1998.

There are myriad examples similar to exhibit 5. These reveal that the manager historically has dodged one or more loss bullets. The suitability issue then translates into the appropriateness of exposing some portion of the investor's assets to this possibility, as well as the investor's confidence in the manager's ability to protect going forward. Sophistication is not sufficient to determine

suitability; knowledge is paramount to informed decision making. Forewarned is forearmed.

Conclusion

Hedge fund manager due diligence should not employ peer group and index comparisons because peer groups have documented deficiencies, and hedge fund indexes are constructed from these faulty peer groups. Peer groups still serve the useful purpose of providing access to hedge fund managers, but they should not be used for performance evaluation. Fair and accurate yardsticks are provided by a contemporary application of hypothesis testing that uses Monte Carlo simulations to create a background of all possible portfolios. It's time for hedge fund investors to get what they pay for, or they will stop paying.

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