Clearbrook Perspectives

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Hedge Funds as an Equity Surrogate

About The Author

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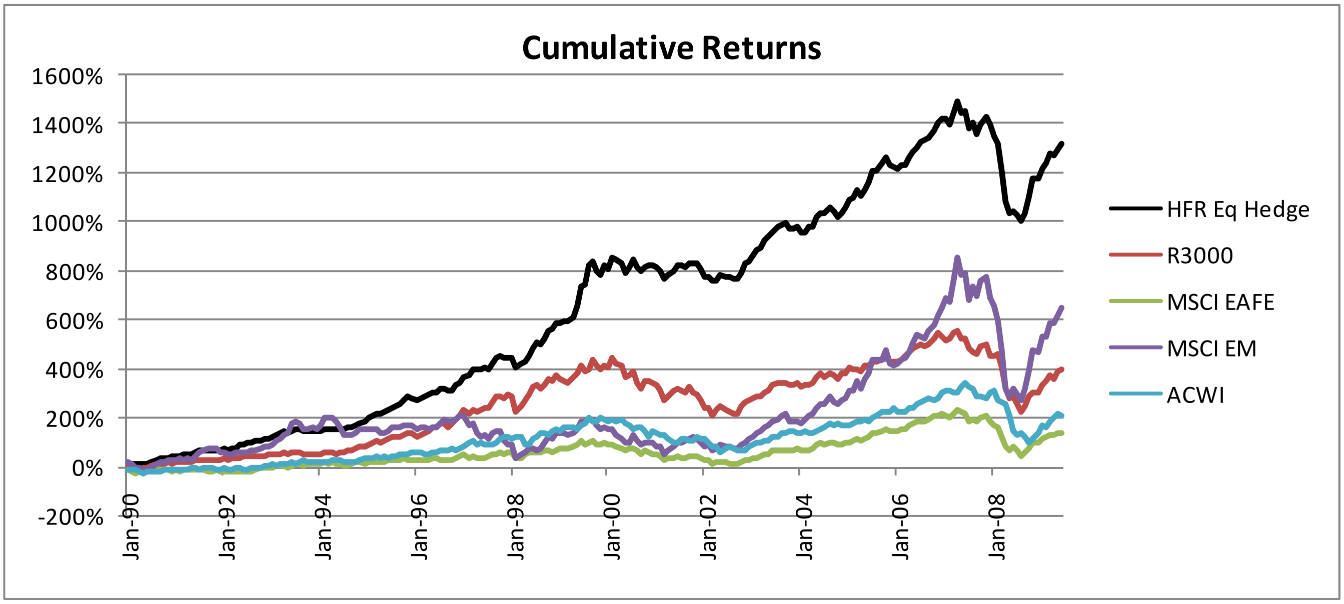
Eric joined Clearbrook Investment Consulting in March of 2009 and heads Clearbrook's newly developed Implemented Consulting business. He is responsible for all aspects of the Implemented Consulting platform including research and product development, targeted distribution, and operations. Eric has spent the last twenty-three years developing and managing institutional investment programs. He was most recently a Managing Director at Syndicate Advisers LLC, which he co-founded with AQR Capital Management and First Quadrant LP. Eric also held prior positions as President and Chief Investment Officer at Investment Solutions, Inc., and ASEA Brown Boveri, Inc. respectively. Eric received a BA from Hartwick College and an MBA from University of Connecticut. He is a CFA Charter holder (CFA).

Introduction

We are all concerned about managing the risks of our portfolios, whether an endowment fund, corporate pension plan or high net worth pool of capital. The following analysis explores the potential of hedge funds and/or fund of funds structures as possible surrogates for equity investments in a client portfolio. This paper is not meant to condone a retreat from equities and an investment solely in hedge fund strategies but rather attempts to understand the risk and return behavior of hedge funds and how they could be, given our knowledge to date, considered a viable alternative within an investor's portfolio.

CLEARBROOK



Returns

Let's take a look at the chart above which illustrates the returns of a variety of equity asset classes over the past 20 years (1/1/1990 - 12/31/2009) superimposed with the returns of equity hedge funds (HFR Equity Hedge Index) over the same period. The casual observer can easily conclude that equity market returns have been positive and the ride has been a bumpy one. It is also clearly evident that hedge funds (or at least this proxy for hedge funds) have generated substantial premium returns relative to the equity asset classes. On an annualized basis the HFR index returned 14.2% while the MSCI All Country World Index (ACWI) returned 6.2% over this 20-year period.

What has led to these premium returns? There are a number of factors that could help explain the difference.

More Tools

Hedge fund managers typically have more tools at their disposal and more discretion to use them than their long-only counterparts. Shorting, leverage, derivatives—all have the potential to be used profitably (and of course unprofitably). When employed by an experienced and thoughtful manager he or she has the potential to impart on the portfolio their view of the world more efficiently.

More Focus

Hedge fund managers often operate in fairly narrow realms – choosing to apply their efforts in those areas where they feel they have the greatest relative advantage. This can lead to a more efficient use of capital. Consider a situation where a portfolio manager might have specific expertise in health care (perhaps they were a former physician or previously worked in the pharmaceuticals industry). If charged with the objective of beating the S&P 500 with a traditional long-only mandate, that portfolio manager would likely feel compelled to hold *some* auto stocks or bank stocks – even if that manager knew nothing about these industries or these companies – simply because they represent a significant allocation in the index they are trying to beat. They would likely not be willing to assume that "tracking error" risk. This can represent a tremendous waste of capital – capital that is being deployed not to generate excess returns but rather to control risk (the risk of the manager massively underperforming the benchmark and the risk of putting themselves out of business).

Ability to Tactically Adjust Exposures

It is typically verboten for long-only managers to not be fully invested (e.g., <3% cash) at all times and obviously equity benchmarks are "fully invested." We believe that managers, especially those in niche areas, who have been operating in a particular space for a long period of time, develop a good sense of when opportunities are greatest. Conversely they can be keenly aware of developing headwinds. Having the latitude to reflect those sentiments and adjust their exposures, provides hedge fund managers the potential to improve returns over the long-term.

Smarter People

We have all heard the often flip comment that "all the smart people" now run hedge funds. While we certainly don't agree with the literal interpretation of this statement, we do believe that there is at least a thread of truth to the notion. Believing in the constructs of capitalism, profit motives, and human motivations, it follows that there is the possibility that "smarter" people will tend to gravitate to those areas where there is the greatest reward. The hedge fund industry is nothing if not one of the most highly rewarding areas to ply one's investment management talents.

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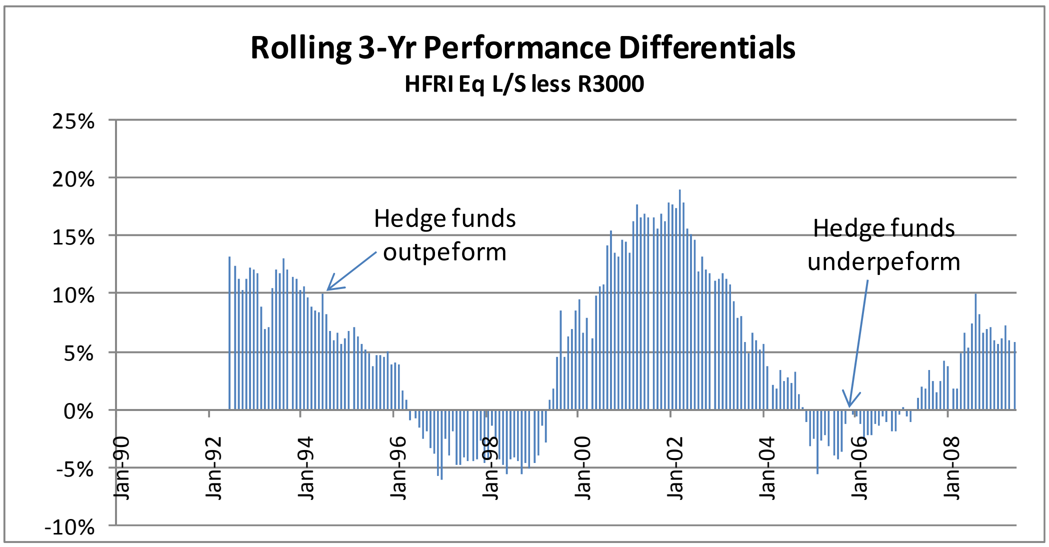
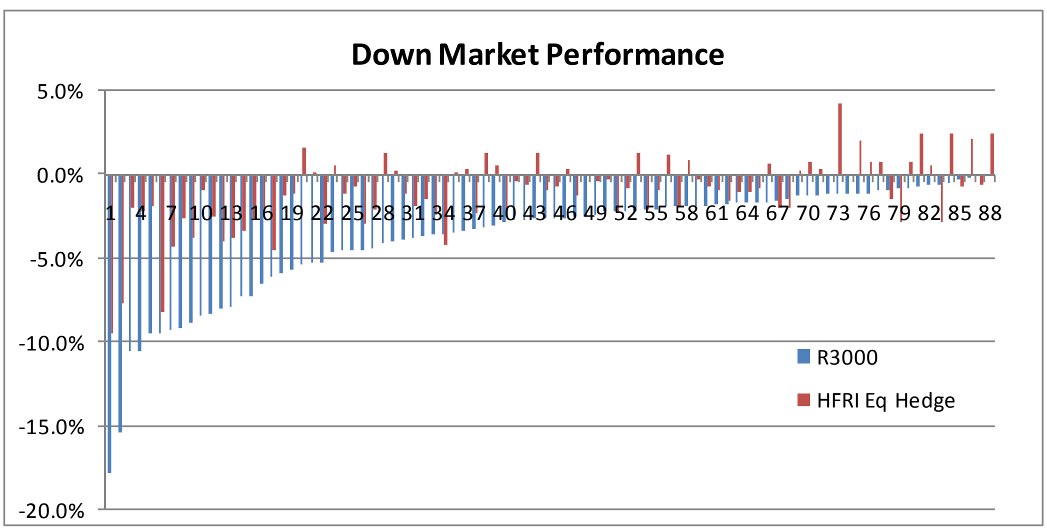
Survivorship Bias of Index

It has been well documented that many indices have meaningful survivorship biases as poor performing managers or managers that simply go out of business cease to report their returns to the index providers. We believe that those biases skew the HFR index returns and should be discounted to some degree.

Despite their apparent long-term prowess, the chart on the following page shows that hedge funds don't *always* outperform the market (as represented by the Russell 3000 index). So when do hedge funds tend to underperform? Not surprisingly during very strong or extended bull markets. During the bull market of the late 1990s, hedge funds struggled to keep up as the "dot com" bubble was inflating and driving strong overall market returns.

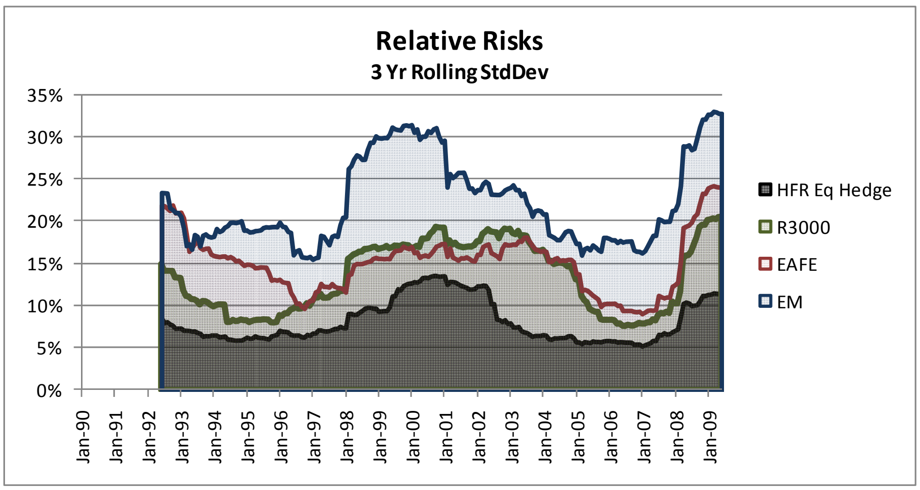
But the primary driver as to why hedge funds have been able to generate premium returns has been their ability to lose less money in down markets. As illustrated below, over the past 20 years, the Russell 3000 has posted a negative return in 88 months or 37% of the time. In only 11 of those months did hedge funds lose more, and they never lost more money in months when the market dropped significantly (>5%). This brings to mind the old axiom—"the best way to make money is not to lose it."



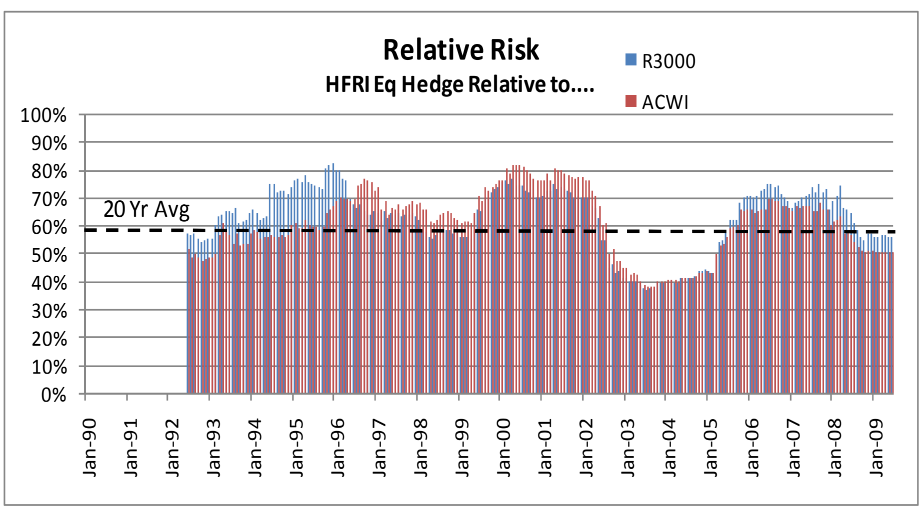


Risk

Let's shift our attention away from returns for a moment and consider risk, as measured by volatility of returns. The chart below depicts the annualized standard deviation over rolling, 36-month periods of time. Note that equity market volatility is high, typically in the mid to high teens, and not stable. Hedge funds have exhibited significantly less volatility than equities and we think this is "the story."

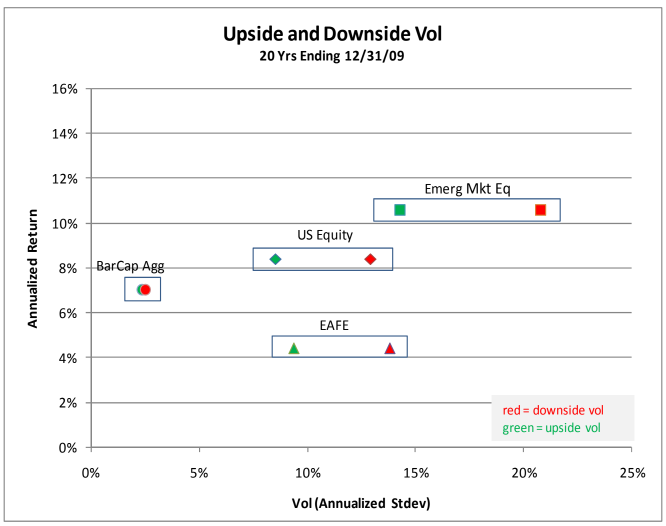


Viewed a little differently, the chart below compares the volatility of hedge funds to both the U.S. and global markets. Hedge fund volatility has been consistently lower—averaging approximately 60% relative to equity markets over the past 20 years. This relationship appears reasonably stable over time and, for the most part, trendless.



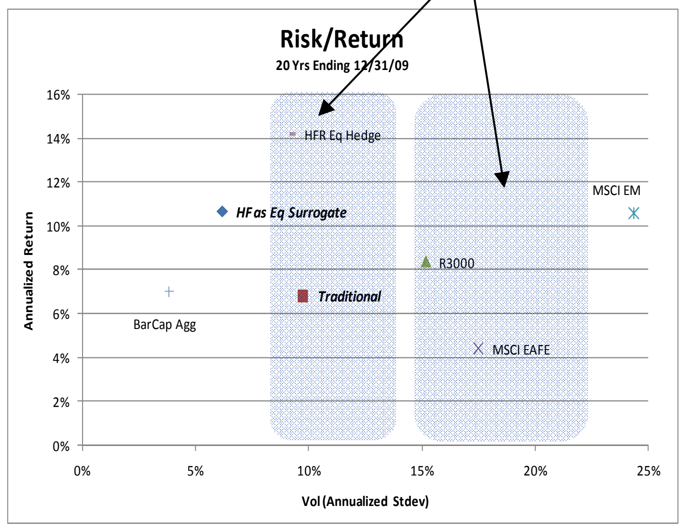
In an industry most often concerned with basis point increments, it is striking to note the magnitude of these differences – measured in *percentage* points.

Volatility is a doubled edged sword. If we break apart the historical returns we tend to see that much of the equity volatility is on the downside. The chart below shows the difference in upside and downside volatility for equity markets and the US bond market (BarCap Aggregate).

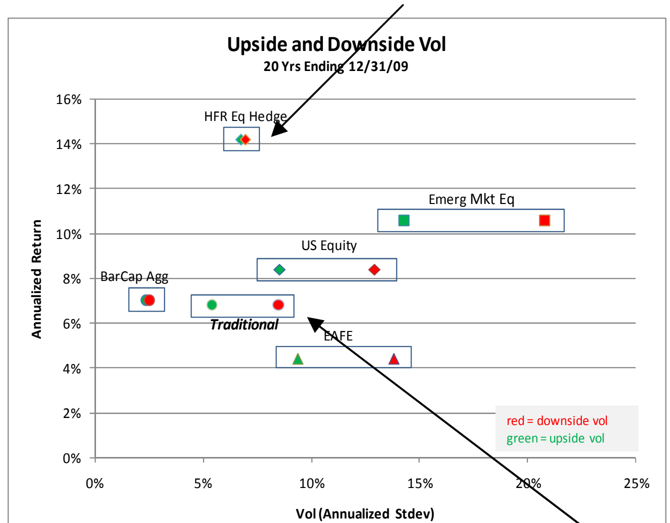


It makes intuitive sense that downside volatility is significantly greater than upside volatility. When "bad" things happen (economic, geopolitical, operational), equity markets tend to get hit hard and in an unpredictable manner. On the other hand, bond market volatility (obviously much lower in absolute terms) appears quite symmetrical—the risk on the downside seems relatively proportional to the risk on the upside.

Hedge funds have not only exhibited significantly lower volatility than equity markets (high single digits vs. high double digits as seen below) but …



…that volatility has been very symmetric.



For a pension fund that is considering a classic 60%/40% asset allocation (combining disparate asset class distributions) this would still leave the portfolio with meaningful downside volatility.

Correlations

We've considered returns and looked at volatility—what about correlations? How have hedge fund returns behaved relative to other asset classes? The table below suggests that hedge funds are reasonably correlated to equity markets (not surprising in that most equity hedge funds are not market neutral – i.e., they have significant beta).

	HFRI Eq Hedge	R3000	MSCI EAFE	MSCI EM	ACWI
R3000	0.75				
MSCI EAFE	0.62	0.73			
MSCI EM	0.68	0.70	0.71		
ACWI	0.71	0.89	0.95	0.79	
BarCap Agg	0.10	0.17	0.14	0.02	0.15

Obviously if hedge funds have a relatively high correlation to equities they will have similar correlations to the bond market. Are correlations trending? The chart below suggests that perhaps hedge funds are becoming marginally more "equity-like" but seem to be maintaining their relationship (or lack thereof) to bonds.

Equity Surrogate?

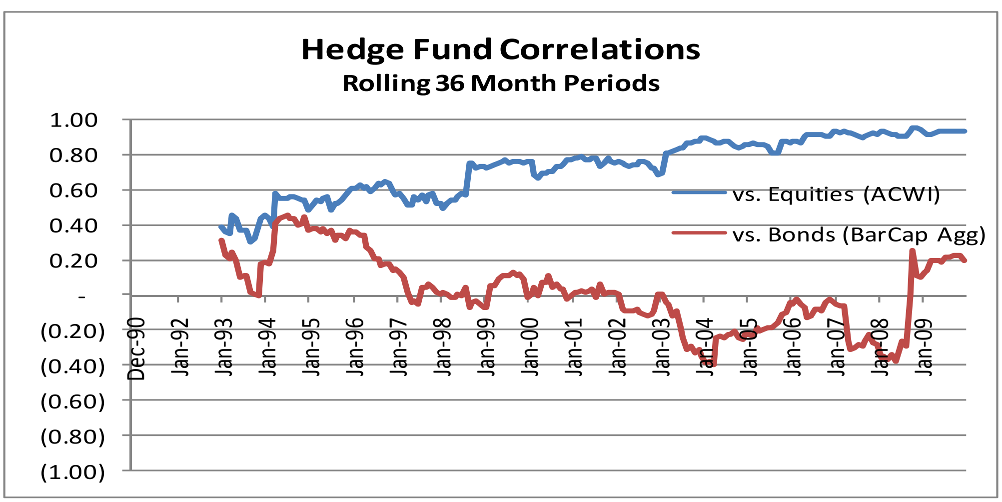
So if hedge funds…

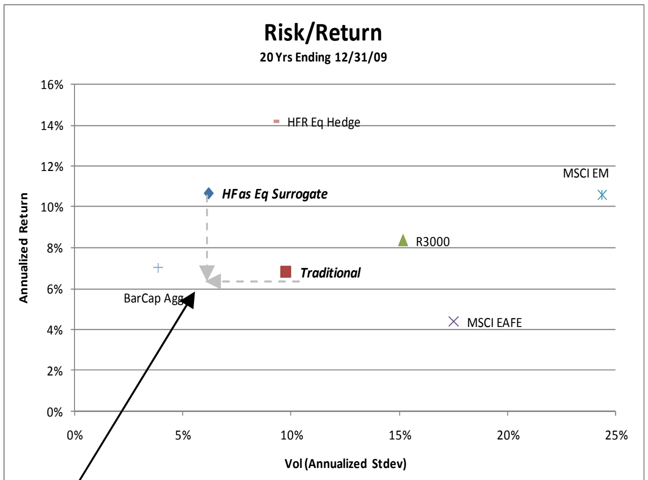
- …can generate equity-like returns (let's completely discount the historical return premium)
- …can do so with much less volatility than equities
- …and are similarly correlated with equities and uncorrelated with bonds

Why not utilize hedge funds as an equity surrogate in a multi-asset portfolio construct?

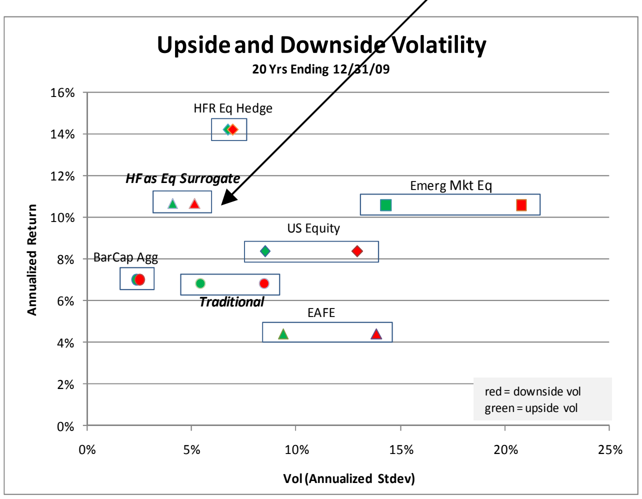
To further explore this concept, we compared two hypothetical portfolios both with the proverbial 60/40 asset class mix (held constant month-to-month).

- The "Traditional" portfolio simply combines the ACWI and BarCap Aggregate indices
- The "Hedge fund as Equity Surrogate" portfolio combines, 50% hedge fund-of-funds, 10% ACWI (for liquidity purposes) and 40% BarCap Aggregate (both portfolios depicted on the next page).

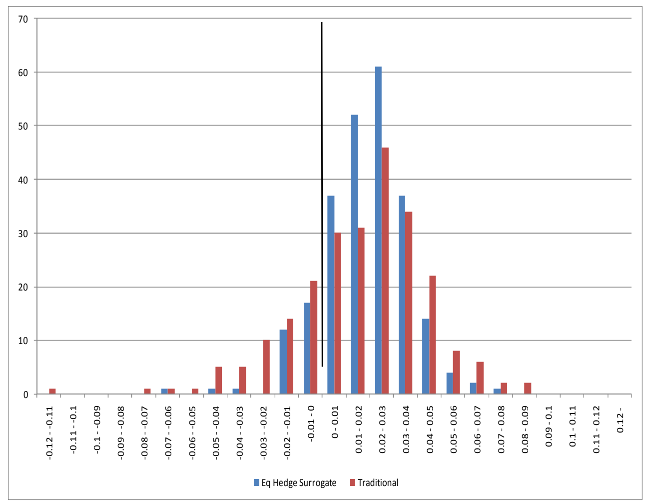




Discounting the improved historical returns generated by the "Hedge Fund as Equity Surrogate" portfolio, what is striking is the 37% reduction in total portfolio volatility, from 9.8% to 6.2%, when comparing the traditional portfolio to the portfolio utilizing hedge funds as an equity surrogate. In addition, the portfolio's upside/downside volatility has improved considerably relative to the traditional portfolio.



The Hedge Fund as Equity Surrogate portfolio exhibits a markedly different return distribution as depicted below in monthly returns—much of the fat left tail of the distribution has been eliminated.



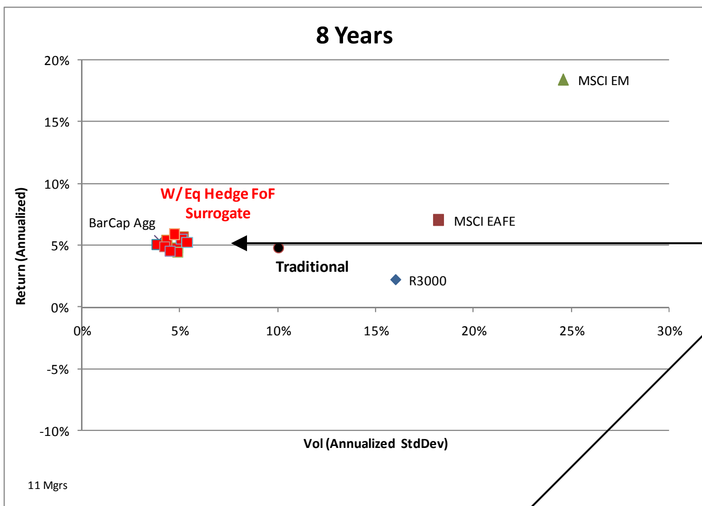
Problems

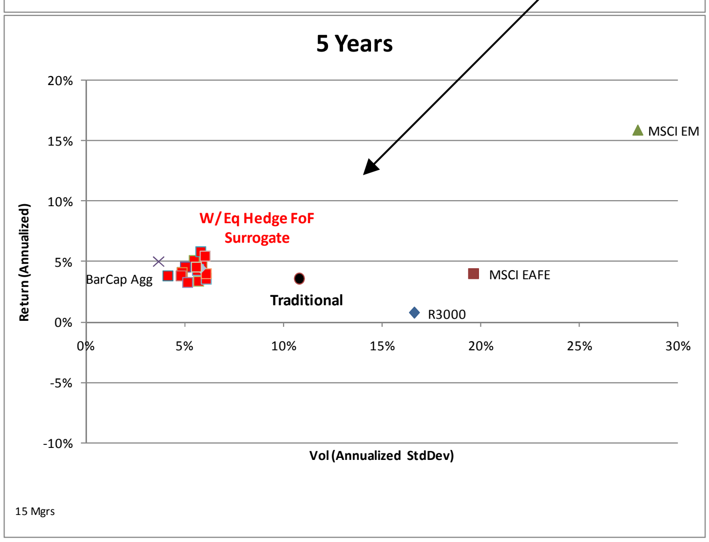
This analysis on the surface seems reasonably compelling, but what's wrong with this picture? The most important problem with this analysis (and a big one) is that the index (HFR Equity Hedge) is ***not investable***. No one could have gone out and achieved this hedge fund return stream.

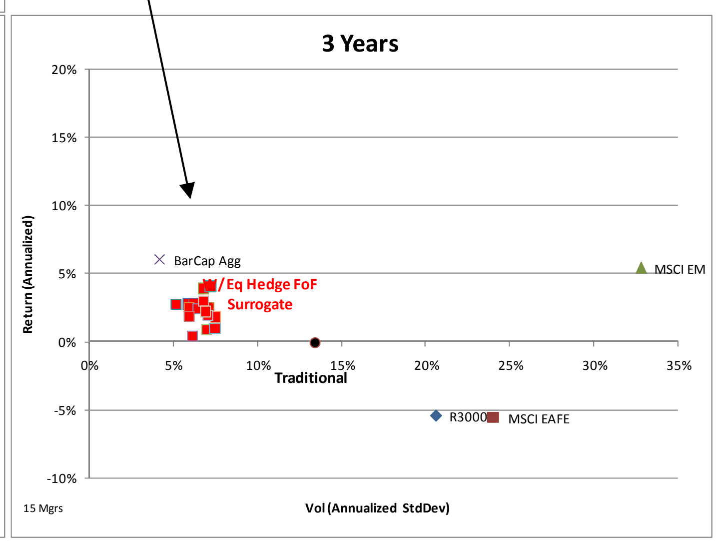
There are hundreds of hedge funds-of-funds that do represent investable return streams. We have placed our clients in a number of such managers and vehicles over the years. So to address the major issue of our analysis' index not being investable, we performed the same analysis as previously described to see if live numbers confirmed our conclusion drawn from utilizing the HFR index data. We were careful to include *all* of the fund-of-funds managers utilized by our clients—careful not to simply cherry pick the best. One of the limitations of the analysis is that these fund of funds managers have relatively short track records. There were 11 fund of funds managers that we have utilized for clients with track records of at least 8 years in length. We felt this was a reasonably robust data set, although the limited time periods should be considered. The results of our analysis are depicted in the charts below.

What strikes us most when looking at these returns is:

1. ***The remarkable bunching of results***
2. ***The remarkable consistency across time***





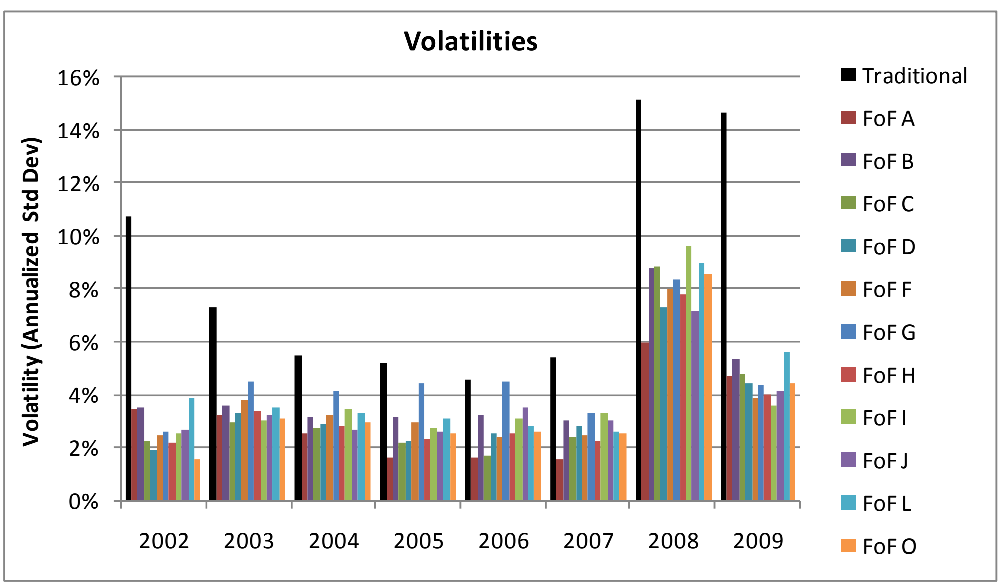


The volatility of the portfolio that utilized hedge funds as an equity surrogate was cut in half on average relative to the traditional portfolio across all time periods. As previously mentioned, we believe that this substantial risk reduction potential is the primary take away from this analysis.

Note the large premium returns versus the traditional portfolio over the past 3 years. This was to be expected as hedge funds did “less worse” during the most recent period of enormous volatility and poor equity market returns. Returns relative to the traditional portfolio over the past 8 years have been a push. Also expected was the struggle hedge funds experienced during the very strong ‘03-‘07 period, and the outperformance during the bursting of the dot come bubble and recent credit meltdown.

Interestingly, not all fund of fund managers in our sample are purely *equity* hedge fund-of-funds. In fact most have at least a sprinkling of other hedge fund strategies within their portfolios (distressed, fixed income arbitrage, CTAs). We think the consistency of results can be somewhat explained by the idea that hedge funds generally are designed to generate returns from alpha sources more than static beta sources. Whether that alpha is hunted for in the equity markets or fixed income markets is irrelevant for our purposes here. Alpha sources can be intelligently put together so that they have minimal correlations and can lead to much more consistent return streams.

Focusing again on the risk of the portfolios, the chart below compares the traditional portfolio’s annualized volatility to each of our hedge fund as an equity surrogate portfolios. Again, a fairly consistent pattern emerges across managers and time.



Concluding Comments

We have enough gray hair to appreciate the perils of assuming that history will repeat itself. In all of our analysis—which is often rooted in historical data—we are not shy about consuming the results with a significant dose of salt. We are always asking ourselves *what will change going forward?* and *How will those changes impact the results of our history-dependent analysis?* Important in our work is the utilization of experience—the healthy process of asking why something makes logical sense and making conservative assumptions so that we have some reasonable margin for error. With that in mind let's reconsider:

Returns

Do we think that the last 20-year premium returns relative to equities will repeat themselves? No. Our gut tells us that they were too good to be true and probably were less than the index numbers indicate in the first place. Importantly the industry is much more competitive than it was 20 or even 10 years ago. This increased competition will likely make it that much more difficult for hedge fund managers (and hedge fund-of-funds managers) to harvest alpha net of fees. We do believe there are some logical reasons why hedge funds might be able to generate some level of premium return going forward (more tools, more focus,…) but for the sake of this exercise we would go further and assume that over reasonably long periods of time going forward, hedge funds will only generate returns on par with equities (no premium). We feel as though this assumption is conservative. If the expected return for equities over the next 5 to 10 years is in the high single digits (7-9%), we are reasonably confident that hedge funds will be able to generate that level of return (net) as well.

Risk

As mentioned, we think this is the take away of our analysis—this is a risk mitigation argument. We are highly confident that the relationship between hedge fund of funds risk to that of the equity market will remain intact. Unlevered alpha simply has far less volatility than equity beta and is more diversifiable. We have witnessed risk levels reduced by half. Even a whopping 50% diminution of *this* relationship doesn't eliminate the argument. We like our margin of error here. *Important: the conclusions of this analysis cannot be transferred to an application by an investor that only engages 1 or 2 direct hedge fund managers. Direct hedge fund returns are highly volatile and idiosyncratic. Madoff happens. Long Term Capital happens. Amaranth happens. Risk becomes very difficult to quantify. We recommend to all our clients that regardless of whether they are building their own structure or engaging a fund-of-funds, diversification (manager, strategy, geography, liquidity) is mission critical.*

Correlation

Perhaps we are witnessing an increase in correlations between hedge funds and equities which isn't all that bad in and of itself in that the argument is to have hedge funds replace equities in the portfolio. To the extent correlations increase substantially , making hedge fund risks much more equity-like, we would be concerned. We see no reason to believe why correlations relative to bonds should change going forward but we believe it is important to continue to monitor all these relationships. We feel as though correlations will continue to fluctuate as they have in the past.

Are we telling all our clients to immediately sell all their equities and either build their own hedge fund program or engage a fund-of-funds? No. But we are asking them to consider this analysis and ask some hard questions. We think that at the very least this analysis and conclusions which suggest the utilization of hedge funds as an equity surrogate within their portfolio, is powerful enough to warrant further discussion and serious consideration.

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