



FORESEEING FAT TAILS

Being able to predict trends is a crucial skill in hedge fund investing.

In the past few years there has been tremendous interest from the institutional community in the diversification potential of hedge funds and hedge strategies in general. However, much of the analytical work showing hedge fund strategies to be attractive diversifiers is premised upon the returns that were available in the 1980s and 1990s; as current hedge fund strategies become more popular, one crucial element investors need to focus on is that hedge fund managers and hedged strategies are not simply seeking to manage portfolios for the sake of generating returns, but are very focused on the risk characteristics of their portfolios as well.

As institutions have invested more actively in hedge fund strategies, many have felt that reality has been inconsistent with their expectations, specifically in terms of the expected returns generated from hedged strategies. One of the reasons for this disappointment is that many investors do not pay enough attention to the risk characteristics of the strategies they are investing in, and don't look at the trends in terms of the risk these strategies have generated.

We looked at the dispersion of volatility of returns over 24-month windows for managers categorized in different strategy universes by the Hedge Fund Research database. There are certain caveats that go with each database provider—for instance, survivorship bias is clearly a problem. However, what we are trying to do in this analysis is simply identify certain trends taking place. The 24-month windows start with the period from June of 2000 as the first snapshot, and then roll forward in 24-month increments, thus spanning one of the more difficult periods within hedge fund strategies but also a period of some of the most vibrant returns for investors.

The analysis presents a breakdown of quartiles of return volatility generated within each strategy. It is consistently evident—whether it be convertible bond arbitrage, equity hedge, directional equity strategies, or even distressed debt—that there is a compression in the dispersion of volatility generated by hedge funds.

More specifically, the lowest quartile of volatility has also declined in magnitude. For merger arbitrage, the last two years have been a more challenging time to generate return. For the riskier quartile of managers that fall within this strategy, there has been significant reaching for return by managers who have been willing to take greater risk. The second strategy that interestingly does not exhibit the same general compression in risk characteristics would be the macro universe: macro managers generally have greater flexibility and tend to be competent risk managers because of the types of risks and directionality of risk that they imbed in their portfolios. Likewise, they are often highly skilled risk managers who will target a consistent risk profile.

In order to analyze the investment opportunity set and the dynamics taking place within strategies, there is a tool that we refer to as a risk-return snail trail. In this we use proprietary data and develop a three-dimensional exhibit to look at rolling volatility and returns over time. This is a useful tool in order to gain a perspective on what types of trends are taking place within the risk-return universe. This focus is important because we know some hedge fund strategies tend to exhibit what are commonly referred to as fat-tail distributions: specifically, they are strategies that tend to generate very attractive returns, but with a significant probability of dramatic losses within the distributions of returns as well. The snail trail analysis is useful in identifying a trend: higher annualized rates of return are evident at ever-lower volatilities. For strategies that clearly have a fat-tail distribution, this is a helpful tool to understand the precarious nature of those returns going forward. One has to take great care not to simply add those strategies which have generated attractive returns in the recent past, but to look at what the trend is in both return and risk profile of those strategies in analyzing the asset allocation process amongst hedged or hedge fund strategies. ■