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More On Volatility



Last year, in a Research Perspective called “Taking a Look at Risk,” located at: http://www.kobreninsightmanagement.com/research_perspectives/rp_archive.html, we talked about risk and, in broad strokes, how we define it (relative volatility), monitor it and manage it. In this article, we will revisit that topic and attempt to explain a bit more about this important concept.

Relative volatility is simply the standard deviation of an individual security or portfolio divided by the standard deviation of the broad stock market (S&P 500). A relative volatility of 1.25 therefore means that the investment has been 25% more volatile than the S&P 500, and conversely, a relative volatility of 0.75 means it has been 25% less volatile.

Every client portfolio has a “neutral expectation” of its asset allocation and exposure to the stock market. And each portfolio also has a “neutral expectation” of what relative volatility should look like over time. The current level and trend of a portfolio’s relative volatility are important to monitor and manage. As fund analysts, this information is often critical when we examine the underlying mutual funds. If we see a notable change in relative volatility, we must learn why. Is it because the underlying fund is changing its asset allocation, perhaps making a significant change in cash holdings? Or is it because of a notable change in sector exposures? These are important questions we need to ask – and questions that a client has every right to ask of us regarding their portfolio.

Why do we measure volatility relative to the S&P 500? It could be argued that there are more representative equity market benchmarks, including the Russell 3000. Nonetheless, among the stock market benchmarks that the major media regularly covers, the S&P 500 is the least flawed and is arguably the leading proxy in most investors’ minds.

What Is The Best Time Frame To Use In Measuring Volatility?

What time frame is best to measure relative volatility? This may sound like a simple question, but it is actually extremely important as the time frame does make a difference in the calculation of the relative volatility. Relative volatilities could be measured using daily, weekly, monthly, quarterly, or yearly return streams. The best answer for each investor really depends on how often he or she looks at their return. That is their experience. If they look at their portfolio once a year, for instance, the volatility of the return should be based off annual returns. The industry, meanwhile, typically looks at monthly returns. This is primarily a product of older tools, monthly reporting cycles and industry inertia. At Kobren Insight Management, in analyzing a mutual fund, we prefer daily returns.

Why daily returns? For starters, we have a lot more confidence in our analysis of a mutual fund if we can examine its market exposures and risk characteristics over the last year based off daily return

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streams because we will have over 250 data points (each business day that the markets are open) to examine – not just 12 if we used monthly data. Also, because of the greater amount of data, the statistics are more stable and reliable to work with. In other words, the data isn't as jumpy and erratic. For example, using monthly data for a 12-month relative volatility can sometimes show a big change in relative volatility – though we haven't made any portfolio moves, asset class characteristics haven't changed, and there is little to no movement in the 12-month relative volatility using daily data. In sum, analysis using daily return streams is more representative of what's going on in the portfolio and how it is evolving.

What Kind Of Relative Volatility Can I Expect?

While, obviously, I can't speak directly to each client's portfolio here, I can provide some typical ranges of relative volatility depending on the broad investment objective of the portfolio. Generally speaking (using daily data), we try to keep client portfolios with a diversified growth objective to about two-thirds the volatility of the S&P 500, while portfolios with a balanced growth and income objective typically have about half the S&P's volatility. Clients with more conservative income-oriented portfolios tend to have about one-third the volatility.

Even clients with an all-equity portfolio can have less than 100% of the stock market's (S&P 500's) volatility. How? Because we believe that international securities should be part of a diversified portfolio, we include them in our neutral allocations. And, since international securities do not have perfect correlations with domestic securities, they provide a diversification benefit that can actually bring down the volatility of an all-equity portfolio.

In the end, as stated in the Investment Philosophy section on this website: "...the cornerstone of our investment philosophy is to build for each client a well-diversified, risk-controlled portfolio that is appropriate for that client's specific situation and objectives." We can't control market returns, but we can monitor and, to some extent, manage the level of risk in a portfolio. And, given those levels of risk, our goal is to maximize the total return (after-tax return for taxable clients) over time.

I hope this article was useful. If you have any follow-up questions, please feel free to contact me (john.vanneman@etrade.com).



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