

What have you done for me lately?

Why timing is as important as magnitude when analyzing a manager's distribution of active returns

9/26/14

The five- and 10-year active return series relative to an appropriate benchmark is an investment industry standard. Asset owners and consultants rely on these numbers to evaluate managers' past performance, as well as to quantify the probability of future outcomes. For asset managers, these numbers can make or break reputations, and their prominence—or lack thereof—in marketing materials is usually a telltale sign of how good their record is.

But what lies beneath the numbers can be more telling than the numbers themselves. And there is one dimension that is frequently overlooked: how specific time periods within the series contribute to, or unfairly skew, the end results. For example, great 10-year numbers can lose their luster when you discover they are being propped up by one or two uncharacteristically stellar periods early in the time series. After all, if most of the top returns occurred long ago, it's only natural to question whether the manager can repeat that performance in the future.

So, how can asset owners peel back the layers to uncover specific time periods that have had a disproportionate effect on a manager's long-term numbers?

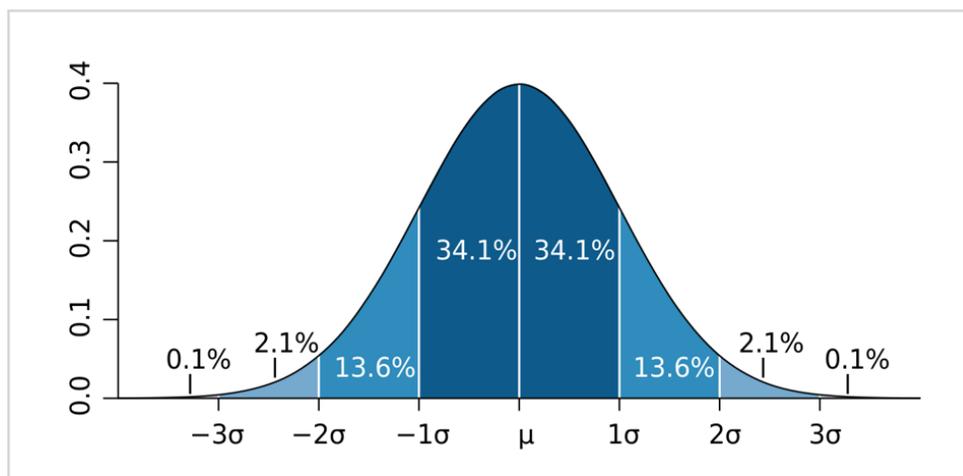
Before we address that question, a quick review of the statistical concepts of normal distribution and standard deviation might be useful.

Stats 101 redux

"Normal distribution" is a pattern of data distribution that occurs in many natural phenomena when measured over long time periods. Basically, it's your 5th grade teacher's "bell curve." Normal distribution is the most common type of distribution and is frequently used in portfolio analysis.

Figure 1 illustrates a normal distribution. The mean average return is represented by " μ " on x-axis of the graph. When a curve is normally distributed, we can expect that half of the returns will fall to the left of the mean and the other half will fall to the right. Given enough observations within a sample size, it is reasonable to assume that returns follow a normally distributed pattern, although this doesn't always happen.

FIGURE 1. NORMAL DISTRIBUTION AND STANDARD DEVIATION OF RETURNS



In this graph, the area in dark blue is less than one standard deviation from the mean. For the normal distribution, this accounts for 68.27% of the set; while two standard deviations from the mean (medium and dark blue) account for 95.45%; and three standard deviations (light, medium, and dark blue) account for 99.73%. Source: en.wikipedia.org.

So, back to the problem at hand: How can asset owners dissect a manager's long-term active returns to determine whether their return pattern is consistent or resting on the laurels of bygone glory days?

First off, it helps to accept the basic premise that an impressive long-term active return number is not a de facto indication of skill. A five- or 10-year return series can be skewed by one or more short bursts of outperformance that mask an otherwise mediocre performance history. And if those anomalous periods were also at the beginning of the time series, so much the worse.

> The wise asset owner will ask to see their manager's distribution of active returns based on multiple time periods.

Asset owners need to be very aware of the timing of a manager's return distribution, not just the magnitude. If their distribution pattern doesn't pass the "age" test, they should be prepared to discuss how and why performance has been lackluster, and demonstrate what, if any, investment process or organizational changes have been made to address it during the intervening years.

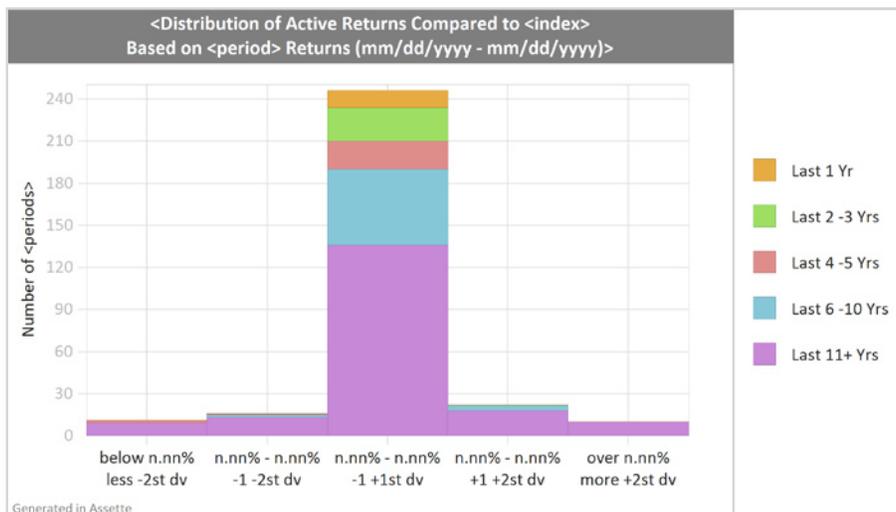
Spikes of outperformance aren't always a bad thing

There are situations where it's perfectly acceptable for a manager's 10-year numbers to be tied to one or two lights-out years. For example, a small-cap value manager might have to wait out a long large-cap growth-stock cycle before their approach is back in favor with the market. This could show up in their return distribution series as a stellar year 1 (the last year small-cap value was in favor), followed by disappointing years 2-10, but that's OK: It is exactly what you would expect to see if the manager is staying true to their mandate.

Revealing what lies beneath

The wise asset owner will ask to see their manager's distribution of active returns based on multiple time periods. That will allow you to thoroughly deconstructing the age of a manager's returns and use that information to frame meaningful conversations with the manager about what influenced performance during certain periods and how the manager plans to rectify—or replicate—those results in the future. One way to do that is by asking managers to provide you with a graph like the one in Figure 2.

FIGURE 2.



Source: Assette

This analysis looks at the distribution of active returns versus the benchmark by breaking it into various time periods. The first thing we can see in Figure 2 is that this manager's returns are normally distributed. Using data that includes more than 11 years of observation, their curve is a nearly perfect bell shape, just what one would expect.

But what's really interesting is that in nearly all periods, from one year to 11-plus years, the manager's returns were within one standard deviation +/- of their long-term mean performance. That indicates a portfolio strategy with relatively low volatility compared to the benchmark, and that low volatility has generally held regardless of the time period being measured. And, though there have been periods of more significant over- or under-performance—the "tails" to the left and right of the center of the graph—they have been limited to fewer than 20 time periods over the last six or more years, with one exception. The very narrow band of yellow to the left of center indicates a period in the past year of negative one-to-two standard deviation of returns, indicating more-than-average underperformance. This recent period of disappointing returns is rich fodder for discussion with your manager and consultant, but should not be a cause for too much concern, given the manager's very long-term return pattern.