REKENTHALER REPORT

What's Alpha?

These days, the statistic's interpretation is taken more figuratively than literally.

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The Statistic is Born

The conclusion of Friday’s column deserves further consideration. Alpha is among the most common of investment terms. It is also among the most confusing, given its multiple meanings. Today’s column will disentangle the threads.

The expression originated in 1967, appearing in “The Performance of Mutual Funds in the Period 1945-1964,” by Michael Jensen. (Consequently, alpha is sometimes called by traditionalists “Jensen’s Alpha.”) It was a mathematical result, providing the intercept on the y axis for a best-fit line--defined as alpha’s counterpart, beta, which describes a fund’s level of risk--on a scatterplot that places stock market performance on the x-axis and the fund’s totals on the y-axis.

Which is a mouthful. Had there been no illustration following the invention, alpha would likely have reached a limited audience. However, the picture extends the concept. The general direction of the beta and alpha immediately tell a fund’s story. In the example below, the gently rising line indicates a relatively conservative fund, with a beta of less than 1. Meanwhile, an intercept above zero shows that the alpha is positive, which means … well, therein lies the problem.
**Scientifically Speaking**

Jensen ascribed the greatest possible power to alpha. In his view, fund performance came from two sources: general and specific. The general source was the level of the fund’s stock market exposure, as measured by beta. The
specific source was the portfolio manager’s decisions, as captured by alpha. Consequently, one could rely fully and completely on the alpha statistic to judge the ability of portfolio managers.

The results left him unimpressed.

“The evidence on mutual fund performance discussed above indicates not only that these 155 mutual funds were on average not able to predict security prices well enough to outperform a buy-the-market-and-hold policy, but also that there is very little evidence that any individual fund was able to do significantly better than that which we expected from mere random chance.”

**One is Not Enough**

Nobody serious about investment research would write those words today, based solely on Jensen’s computation. They would recognize that funds could have ongoing exposures that make them behave very differently from the overall stock market. To cite a particularly dramatic example, Vanguard Small Cap Value Index VSIIX opened this millennium by gaining 22%, in a year when the S&P 500 lost 9%.

(Note: This column’s alpha examples are unrelievably positive, because why not? It’s fun to imagine success. But it should be remembered that alphas can as easily land below sea level as above it.)

That fund’s management, of course, didn’t succeed by predicting “security prices.” Rather, the fund thrived because its portfolio deviates sharply from the mainstream, and 2000 happened to favor that dissimilarity, just as the previous years had punished them. The alpha scores merely restated the obvious. We already knew that Vanguard Small Cap had enjoyed a great year; what we sought to know was why. On that question, alphas were silent.

As recognition grew that investment managers should neither be rewarded nor punished for their portfolios’ accidents, the alpha calculation became increasingly complicated. Initially, it expanded from comparing funds against the single benchmark of the U.S. stock market, to charting them against three factors: 1) stocks overall (the same as before), 2) company size, and 3) value/growth. This became codified as the Fama-French Three-Factor Model.
Factor Inflation
In the 1990s, academic researchers showed that portfolios that held average exposures to each of those three factors would have posted above-zero alphas, if they held only securities that had enjoyed high recent performances. This finding not only torpedoed the strict definition of market efficiency, which stated that price movements convey no clues, but also undermined the Three-Factor Model. If funds indexed to this “momentum” factor recorded positive alphas, then the measure could no longer be interpreted as revealing “manager contribution.”

You know what comes next, even if you don’t know what comes next. The Three-Factor Model became the Four-Factor Model. That, of course, was not enough. Dividend-yield funds frequently recorded positive alphas, even if they lacked exposures to the other factors. Owning illiquid stocks could prove profitable. Others found that, on a risk-adjusted basis, stocks that had relatively low standard deviations outperformed their more volatile rivals.

The models kept expanding. They will always expand, because there is no practical limit for the number of factors that are required to estimate the effect of the manager’s decisions. Specify 15 factors, the fund might benefit from a 16th. For example, no matter how many items that beta calculation incorporates, its alpha intercept will be skewed for a fund that always favors financials, if industry exposure is not one of the specified factors.

From Literal to Metaphor
In practice, then, while researchers (including Morningstar) continue to publish alphas, the statistic resists easy interpretation. Sometimes, a fund’s alpha is a reasonably good estimate of the managers’ contributions. Other times, it fails. Unfortunately, it’s difficult to distinguish between the two cases. Whether calculated by one factor or many, a fund’s alpha may provide useful insight into management’s abilities. Or it may not.

That’s not very helpful. For that reason, the investment industry now tends to use the term “alpha” loosely, rather than technically. We cannot know a fund’s true alpha; the best we can do is study the shadows on the cave walls, and guess at the shapes of the puppets that dance behind our heads. But we can define what alpha would be, if we possess the ability to identify it.
Some have described alpha as “knowing something that others do not.” That is too strict. If two people on the planet profit from the same investment approach, surely they each create alpha, even if they are not alone. On the other hand, benefiting from widely publicized and imitated trades, as hedge funds once did (with, for example, convertible-arbitrage strategies), is too public to qualify as true alpha. Such opportunities disappear once money piles into the trades.

Thus, my definition: Alpha is the result of decisions that cannot be captured by any factor model, no matter how intricate the model, because the insight that underlies those decisions has not yet become public knowledge. When and if the investment tactic does become known, then it no longer is alpha. It is instead one of the many components of beta.

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