

Market Monitor

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It's all Greek to Me

Today we will focus on the fundamentals of investing. Namely the ABCs – or rather their Greek equivalents the Alpha Betas - of investing. Our themes for today are:

- What do alpha and beta mean when it comes to investing and why is the concept of beta confusing to investors
- What's new about alpha and beta in the institutional investing world and why should individual investors care?

Alpha and Excess Returns

Let's start with alpha, the first letter of the Greek alphabet. Recall that the *total* or *absolute* return of a security or a fund is the change in its price plus dividends minus expenses.

$\Delta \text{ Price} + \text{Dividends} - \text{Expenses} = \text{Total Return}$

In a passive index fund, the total return should come very close to equaling the return of the index or benchmark. For active investors – whether they are professional managers or individual investors, the goal is to achieve a total return greater than the index or benchmark. In other words, they are seeking an extra return *relative* to the benchmark return, commonly called excess return or alpha. Active professional managers are often compensated for their skill, which is defined as how much alpha they produce, subject to the risk they take. Obviously, active investors would like to invest in securities or funds that grow faster than the fund's underlying benchmark.

There are two precautions to consider with alpha. One is that alpha can be negative as well as positive. Everyone wants positive alpha, but it is hard to achieve. The evidence is strong that, over the long run, it takes special skill to beat a benchmark consistently. The second precaution is that positive alpha, while always desirable, can come at a time when the market is down, so that absolute returns are negative. This is when a manager beats the benchmark in a down market.

Understanding Beta

The next step is to bring beta into the picture. Both alpha and beta come from the statistics investment analysts use to relate a security or fund to a benchmark. As we have seen, alpha is the portion of the return in excess of, or falling short of,

the benchmark return. In contrast, beta tells us how an individual security or fund return moves in relation to a benchmark. It tells the analyst how much the return of a security or portfolio of securities changes when the return of the benchmark changes. It's a little like a correlation in that sense.

Traditionally, analysts talk about beta in relation to a broad measure of U.S. equities, such as the S&P 500 or the Russell 3000. A broad, actively managed U.S. equity fund would be more likely than a foreign bond fund to have a beta near to one, which means that when the Russell 3000 return changes, the fund's return changes identically or nearly so. A bond fund would be more likely to have a beta less than 0.5, which means that it will not be as volatile as the Russell 3000 – it may react less to ups and downs in that index. Of course, a portfolio of small foreign stocks is likely to have a beta greater than one since it will be more volatile than the Russell index.

Beta can be confusing because analysts use it to measure indices outside of the broad U.S. market. Beta can measure changes in a fund's return relative to its own benchmark, such as a foreign stock fund that tracks the Morgan Stanley EAFE index or a bond fund that tracks the Lehman Aggregate. In fact, a possible constraint that can be imposed on a fund manager is to ask him or her to create a portfolio with a beta close to one in relation to its benchmark, but to seek an alpha that is positive. So this portfolio

would track its benchmark closely, but would also hope to add excess return over the benchmark. So beta can mean one of two things depending on whether we're referring to the overall domestic stock market or a specific fund's benchmark.

A further wrinkle with beta arises because in the last few years some investment analysts and managers have thought about how alpha and beta can be separated. For the most part, a single fund or portfolio has both an alpha and a beta and a fund manager can adjust the beta so that it closely tracks the benchmark while still adding alpha. But some institutional investors are now beginning to treat alpha and beta separately. They believe that beta is "cheap" since it is like an index fund return. In other words, why pay high fees for active management? If an active fund has a beta of one, why not just buy something that looks like an index fund and look for alpha elsewhere?

In fact, institutional and high-net worth investors are beginning to look for alpha separately from their beta exposures. They may still want to track the benchmark, but in many cases can do so by purchasing low-cost index futures, which are cheaper than buying the underlying stocks in the index. They can use the money left over to look for alpha-like returns that are not correlated with the benchmark in question. Some traditional fund managers are beginning to look for ways to do this as well. A diversified balanced portfolio could be constructed for an

individual or an institution by purchasing a mix of index futures that will provide the desired portfolio characteristics and then use the rest of the resources to buy more expensive funds that will presumably produce significant alpha. Examples might include very concentrated stock or bond portfolios that don't track a benchmark, merger arbitrage hedge funds, macro markets hedge funds, or global tactical allocation funds.

This theory is gaining popularity, both in the institutional investment world and more recently among individual investors. Questions that have been raised about separating alpha from beta include the ability of managers to actually produce pure alpha that has no beta or correlation

with an index. That's because if an alpha strategy's beta approaches one with respect to an index, then it is not really separating alpha from beta.

So in this comment we've reviewed the meaning of alpha, which is like excess return relative to the benchmark, and the meaning of beta, which is the relationship between a fund's return and the return of either the overall market or a particular benchmark. And we've introduced the notion of alpha-beta separation, something you may hear more about in the near future.

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