Asset Allocation Matters, But Not as Much as You Think

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We're all familiar with the 1986 finding by Gary Brinson, Randolph Hood, and Gilbert Beebower (BHB) that asset allocation explains 93.6% of the average fund's return variance over time. Ironically, their findings also rank among the most misunderstood in the financial literature, but, even if correctly interpreted, their findings do not answer a key question for advisors: What role do market movements and active management play in explaining return variance?

Roger Ibbotson, the founder of Ibbotson Associates, has published new research showing that those two factors matter a lot more than asset allocation in explaining the variation of returns over time. I spoke with Ibbotson last week about his research, which he published in two articles, *The Importance of Asset Allocation* and *The Equal Importance of Asset Allocation and Active Management,* both of which appeared in the March/April issue of the *Financial Analysts Journal.* The latter article was co-authored by James Xiong, Thomas Idzorek and Peng Chen.

Ibbotson is an outside advisor to Morningstar, having sold his firm to them in 2006. He is also a part-time professor at the Yale School of Management. His primary role, however, is as chairman and chief investment officer of Zebra Capital. Zebra recently introduced two mutual funds designed to capture the return premium associated with illiquid securities, and I also spoke with him about his research behind those funds.

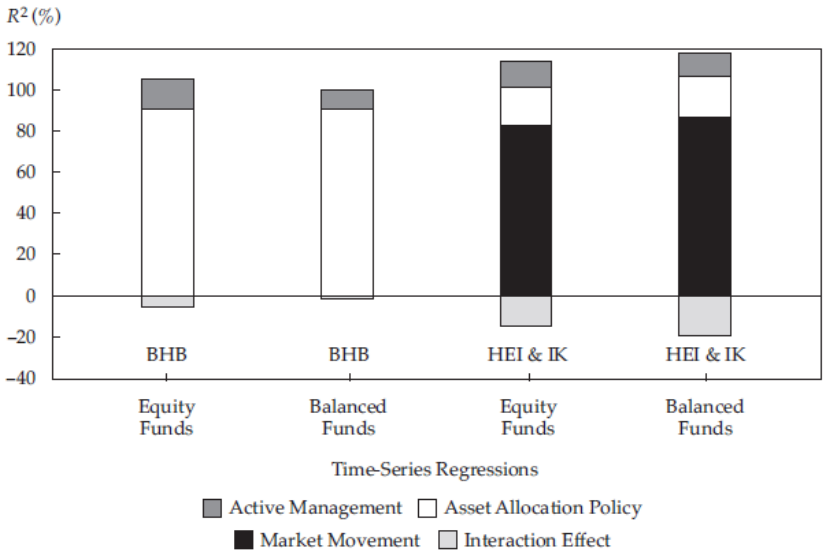
BHB revisited

The BHB result came from regressing the time-series returns of a universe of funds over a ten-year period. They compared each fund to a series of indices that reflected its policy mix. The problem with this approach is that it did not distinguish whether the variation in returns (measured as the r-squared) was due to the policy mix (asset allocation) or to movements in the overall market; those two factors were lumped together in the 93.6% result.

Subsequent research, including a paper co-authored by Ibbotson and Morningstar's Paul Kaplan in 2000, showed that most of the variation in returns owed to market movements. Instead of a time-series approach, they used a cross-sectional approach, comparing the annual returns for a universe of balanced funds. This approach neutralized the effect of market movements and showed that asset allocation explained approximately 40% of the variation across. Other studies found this figure to be anywhere between 33% and 75%, depending on the universe of funds and the time period studied.

Ibbotson and his three co-authors dug deeper by using a time-series approach to separate the contributions of market movements and asset allocation. Their findings are summarized in the following figure:

Figure 1. Decomposition of Time-Series Total Return Variations



Note: IK stands for Ibbotson and Kaplan (2000).

Source: Based on the mutual fund data results in Xiong, Ibbotson, Idzorek, and Chen (2010).

Each bar indicates how four factors explain the variation of returns: active management, asset allocation, market movements and an interaction effect. BHB did not distinguish between asset allocation and market movement; instead they attributed all variation to asset allocation. The more recent research, shown as the two bars on the right, shows the dominance of market movements in explaining the variation of returns, once they have been disentangled from asset allocation.

The role of active management

Another way to understand the contributors to return variance, Ibbotson said, is to consider a four-step process that looks like this: You begin by assuming you start with cash, then you go to an average asset mix, and then you go to the specific policy mix for a particular fund. Finally, you put in active management, which consists of actively managing your asset allocation plus actively managing your stock and bond selection, security selection, and of course paying some fees.

"Just going from cash to that average asset mix explains approximately 70% of the variation of returns," Ibbotson said, although in the BHB study it was a little more than that. When you go to the next piece, which is the policy piece, it explains another 15% or so. The last piece, active management, explains the remaining 15% in the variation of returns.

The BHB study combined the first two steps to arrive at its 93.6% figure. Ibbotson said that the results from all these studies are sensitive to the universe of funds and the time period used in the study, which explains the differences between the BHB results and his own.

The key insight in Ibbotson's latest research that a cross-sectional approach automatically eliminates market effect, because one just picks up the differences between funds. Over time, if you don't take the market effect out, you get the BHB results. His approach, using a time-series analysis, allows the variation in returns to be decomposed into how your policy mix and active management differ from the market.

Implications for advisors

As an advisor, a key question you must ask is which of your decisions will have the greatest impact on portfolio performance. On this score, Ibbotson's research supports what most would consider intuitively obvious – one's decision to be in or out of the market, versus being in cash, dominates. On average, that decision explains approximately 70% of the variation in portfolio returns, with the remaining 30% split roughly evenly between active management and asset allocation.

However, as Ibbotson and other researchers have cautioned, that result does not answer a key question that advisors often ask: How much of the level in returns in *their* portfolio does asset allocation explain? The answer, which Ibbotson called "trivial," is that asset allocation explains the passive (beta) component of return and active management explains the active (alpha) portion.

Most advisors, Ibbotson said, have already made the decision to be in the market, and what they really control is the last two steps in the four-step process: the specific asset allocation and the degree of active management. Based on their clients' age, risk preferences, and other factors, advisors determine an appropriate asset allocation and active/passive strategy. "Now you know how important asset allocation and active management are in affecting the answer," Ibbotson said.

The illiquidity premium

Let's now turn to Ibbotson's research on the liquidity premium.

On May 1, American Beacon introduced its Zebra Large Cap (AZLAX) and Small Cap (AZSAX) funds, which are sub-advised by Ibbotson and Zebra Capital. The underlying concept behind these funds is that there is a liquidity premium. Over time, illiquid securities generate higher returns than liquid ones, and the funds concentrate their investments in illiquid securities to generate alpha.

In the bond market, it's fairly easy to observe the liquidity premium. Off-the-run Treasury securities are priced lower (and yield more) than on-the-run securities of equivalent maturity and coupon. Zebra has taken this concept and deployed it in the equity markets, where Ibbotson said he has found "surprisingly large liquidity premia."

One way Zebra measures liquidity is through the V/E ratio, which is the trading volume of a company divided by its earnings. The lower the V/E ratio, the higher will be the liquidity premium. This metric supports the funds' goal of buying stocks with strong fundamentals and earnings that Zebra believes are undervalued.

How much excess return can one expect from a low-liquidity strategy? To answer this, one must also control for factors such as market capitalization and value-versus-growth. Using data from 1972-2009, Ibbotson found, for example, a nearly 12% difference in average return among small-cap stocks between the lowest-liquidity quartile of stocks and the highest-liquidity quartile of stocks. Over the same time period, within value stocks, the lowest-liquidity quartile outperformed the highest-liquidity quartile by over 7%.

The liquidity premia were also present in large cap and growth stocks, as well as in high- and low-momentum stocks, to varying degrees.

For liquidity to be considered a unique factor, separate from market capitalization, growth/value, and momentum, it must also have a low correlation to those factors, and that has been the case. From 1996 to 2009, the large-cap fund had a -0.04 correlation to a market-cap strategy, a 0.22 correlation to growth/value, and a -0.45 correlation to momentum. For the small-cap fund, the correlations were 0.39, 0.10 and -0.44, respectively.

Before embracing these funds, advisors will want to answer several questions.

Can these results be replicated "out of sample"? As impressive as these results may be, they could still be the byproduct of data mining. A true out-of-sample test would require either replicating these results across multiple markets (other than US equities) or showing that they persist over a longer time interval.

How will the funds perform in a financial crisis or severe bear market? At such times, prices for illiquid securities are likely to be severely depressed. These open-ended funds will be vulnerable to redemptions by individual investors who panic or otherwise seek liquidity, forcing the funds to sell securities at precisely the time they would want to buy them. Zebra has run low-liquidity strategies in its hedge funds, where investors are presumably subject to lockups and the managers are free to pursue performance with a long-term time horizon. Open-ended funds must accommodate daily redemptions, which could be highly problematic for this strategy in a time of crisis.

If these funds become popular, will the liquidity premia disappear? To some degree, it might seem this is virtual certainty. As the funds grow in size, trading volume will increase for the securities they hold. They could then be forced to sell those holdings and buy others that they previously found unattractive.

Competition could also further erode the liquidity premia.

That said, Ibbotson's liquidity premia measurements are impressive. Advisors will need to carefully assess whether these results will persist as funds like Ibbotson's grow in size.