INVESTMENT PUBLICATIONS HIGHLIGHTS

STRATEGIC ASSET ALLOCATION: COMBINING SCIENCE AND JUDGEMENT TO BALANCE SHORT-TERM AND LONG-TERM GOALS

Peng Wang and Jon Spinney, *The Journal of Portfolio Management*, vol 44, no 1 (Fall 2017): 69–82

The authors developed a framework to allow investors to understand the trade-off between short- and long-term risks associated with different strategic asset allocations. Adding successful active management to portfolios is valuable and increases the likelihood of meeting long-term goals, with no impact on short-term operational needs. Over the long term, low spending rate policies lead to higher total payouts than high spending rate policies.

In determining strategic asset allocation, investors must weigh two competing goals: meet short-term commitments and maximize the long-term real value of the portfolio. Allocations that achieve long-term objectives leave portfolios prone to significant short-term drawdowns, but prioritizing short-term objectives may decrease the real value of the portfolio over time.

To quantify this trade-off, the authors simulate short- and long-term risks for various portfolio allocation combinations. Short-term risk, defined as annual portfolio drawdown, is estimated using the worst 1% of annual returns from a bootstrapped simulation. Long-term risk, defined as the probability of real portfolio value decreasing over a ten-year horizon, is modeled with different inflation and payout assumptions.

The authors find that conservative portfolios do minimize drawdown risk as expected, but these portfolios also have a high likelihood of failing to meet long-term return objectives. In contrast, risky portfolios have the lowest probability of losing real value over time, but expose investors to greater drawdown risk. The authors believe it's beneficial to construct a conservative portfolio rather than a risky one, as they find that a 15% drawdown may permanently decrease the endowment payout value, potentially hampering an institution's operations.

The authors also examine the impact of adding uncorrelated alpha into a portfolio. Uncorrelated alpha can be thought of as superior active manager skill. They find that the addition of alpha reduces long-term risk with no impact to short-term risk for a given allocation. Thus, if institutions are able to add alpha to portfolios, they can focus more on short-term constraints when constructing portfolios. The authors admit this takeaway is dependent on the institution's ability to select managers that deliver positive alpha over time.

The authors also consider portfolio spending policy. Similar to alpha, changes in spending rates influence long-term value with no effect on short-term drawdown risk, with reduced spending rates significantly reducing long-term risk. Over a 30-year period, however, low spending policies lead to greater total payouts than high spending policies. By lowering spending rates in the present, patient institutions can help ensure long-term endowment viability, while also enabling more operational support from the endowment in the future.

OPTIMAL TILTS: COMBINING PERSISTENT CHARACTERISTIC PORTFOLIOS

Malcolm Baker, Ryan Taliaferro, and Terence Burnham, *Financial Analysts Journal*, CFA Institute, vol 73, no 4 (Fourth Quarter 2017): 75–89

The authors examine well-known portfolio factors to identify the most prudent asset allocation. They find that a roughly equal allocation to four of these tilts produced the highest Sharpe ratio over their period of study. They also show that low beta is a distinct factor.

The authors review four portfolio tilts (low beta, value, small size, and high profits) in US equity markets over 1968–2014. In addition to these tilts, which they describe as persistent due to high levels of autocorrelation, they also review three high turnover trades (low growth, momentum, and reversal) and two fixed income tilts (duration and credit risk).

Using a simple mean-variance framework, the authors find that a roughly equal allocation to the four equity tilts and a small allocation to the two fixed income tilts optimized the annual Sharpe ratio. The authors also observe that the small-size tilt has the lowest Sharpe ratio (0.13) among all tilts. Despite the low Sharpe ratio, the authors allocate the highest amount to it because of its diversification benefits.

The authors note that many academics consider the low beta tilt as too similar to other low-risk tilts, such as value and high profit, but the authors find it is a distinct factor. Using regression analysis, they find that the value and high profits tilts explain only a small fraction of the risk associated with the low beta tilt. This fact gives the authors confidence that it deserves a separate allocation. ■