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Revisiting Portfolio Construction

Revisiting the seminal research behind asset allocation for changing market conditions.

REVISITING PORTFOLIO CONSTRUCTION

What the foundational research says about asset allocation, active management and the assumptions behind both

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01

The Portfolio-Construction Problem Has Changed

As stock-bond correlations have shifted positive, the diversification benefit of bonds has become less reliable. In periods when inflation risk and inflation uncertainty are elevated, both asset classes have tended to sell off together, challenging the canonical view that bonds cushion equity drawdowns. This makes the capital allocation decision more consequential today. To provide advisors with a clear historical framing to think about capital allocation, I have summarized 3 seminal papers in modern finance written decades ago that are relevant today.

02

What the Foundational Research Says

Almost everyone has heard that asset allocation determines more than 90% of a total fund's return. The statistic is routinely quoted by the media and investment practitioners. Unfortunately, it isn't true. This statement mischaracterizes the results of the 1986 study *Determinants of Portfolio Performance* by Brinson, Hood and Beebower (the BHB study).

The BHB study found that a pension fund's strategic, or policy, asset allocation was the dominant driver of the variation in its total fund returns over time (93.6%), underscoring the importance of how capital is allocated across asset classes in the portfolio construction process. The key phrase is *variation in total fund returns over time*—not the level of total fund returns. In other words, the broad exposures—how much is allocated to equities, bonds, alternatives, etc.—largely determined the pattern of ups and downs experienced by the portfolios.

So, if the objective is to give clients a smoother ride, asset allocation, not fund selection, is the natural place to start. That makes understanding what constitutes a genuinely distinct asset class or investment exposure critically important, especially among alternatives, where labels can obscure the underlying economic exposures and nonlinearities that actually drive returns.

A subsequent study by Ibbotson and Kaplan (2000) extended the BHB analysis to the cross section of total fund returns—asking how much of the difference in long-term performance among funds could be explained by differences in their policy asset allocations. In other words, if one fund returned 10% and another returned 6%, how much of that difference could be attributed to their respective allocations to equities, bonds and alternatives? The authors found that asset allocation policy explained approximately 40% of the variation in returns across balanced mutual funds and 35% across pension funds. While the study did not specifically seek to attribute the remaining variation, differences in costs and active management decisions—including investment style, fund selection and timing—are among the factors that could account for it.

So, if the objective is to improve the level of total fund performance, and not just the ride that clients experience, asset allocation still matters, but so do the investment decisions made within those allocations—including selecting the right funds and gaining exposure to the right risk premia.

The Ibbotson and Kaplan study also addressed a second question: *How did the return of the average fund compare with the return of its own policy benchmark?* On average, the study found that the policy benchmark generated all the return that the pension funds and balanced mutual funds ultimately earned. In other words, at the aggregate sample level, active management added no return.

HOW MUCH DOES POLICY ASSET ALLOCATION EXPLAIN? IT DEPENDS ON THE QUESTION

93.6%

Variation of a fund's returns over time
BHB (1986)

35–40%

Differences in long-term returns across
funds
Ibbotson & Kaplan (2000)

~100%

Level of the average fund's return
Ibbotson & Kaplan (2000)

Share of results explained by policy asset allocation, as reported in the cited studies. Balanced mutual funds ≈40%; pension funds ≈35%.

These results are consistent with the arithmetic described by Sharpe in *The Arithmetic of Active Management* (1991). Sharpe showed that active investors collectively cannot outperform the market because, in aggregate, they are the market. That means before costs, their gains and losses relative to the market must offset one another—after costs, active management, collectively, must underperform.

Importantly, Sharpe's arithmetic does not imply that individual managers cannot generate persistent positive active returns or alpha. It simply means that the outperformance of some active investors must be offset by the underperformance of others. The challenge for investors, therefore, is identifying managers capable of persistent outperformance—an objective worth pursuing, since even an additional 1% of annual return can compound into meaningfully greater spending capacity over time.

03

The Assumption Worth Questioning: Parameter Stability

One additional thought concerns the assumptions underlying classical financial theory and the tools practitioners use to make decisions. Financial theories and models necessarily simplify the real world to make complex problems tractable. Efficient markets, mean-variance optimization and CAPM all rely on assumptions that allow the theory to work. The problem is that markets do not always behave according to those assumptions. Many of the parameters we estimate—expected returns, volatilities, correlations and betas—are themselves time-varying. The mistake is treating the underlying population parameters as stable.

“The mistake is treating the underlying population parameters as stable.”

The issue is not that these theories lack value. They provide enormously useful frameworks for thinking about markets and constructing portfolios. The danger comes from treating their simplifying assumptions as enduring features of the real world. If the underlying parameters change materially across market regimes, an allocation that appears optimal based on one set of relationships may be poorly suited to the state that follows. That is exactly what investors experienced in 2022, when the negative stock-bond relationship on which many traditional portfolios had come to rely broke down, with painful consequences for diversification.

04

Summary

Control volatility and drawdown: Focus on asset allocation.

Improve total fund returns: Focus on asset allocation, fund selection, the underlying risk premia and implementation costs.

Question the assumptions: It's important to understand the assumptions that the theories and tools make. What happens when the parameters underlying those assumptions change?

Today, investors have tools that make answering these questions easier than ever. At RegimePilot, we use readily available AI tools to build and run bootstrapped Monte Carlo analyses with 100,000 randomized portfolio paths to better understand the range of risks associated with our equity strategies. Advisors and allocators can do the same. The analysis that once required specialized software and resources is increasingly accessible to anyone. We are happy to share the prompts we use.

Equity strategy adaption is important: Equity market returns are state and regime dependent. Investment teams that can adapt to capture opportunities within and across market states offer a stronger opportunity to enhance returns and minimize losses than teams that run static single period processes.

05

References & Research Notes

The discussion draws on three foundational studies that shaped how practitioners think about asset allocation, active management and portfolio construction. The notes below summarize what each paper examined and its relevance here.

Brinson, Hood and Beebower (1986)

Gary P. Brinson, L. Randolph Hood and Gilbert L. Beebower, “Determinants of Portfolio Performance,” *Financial Analysts Journal*, Vol. 42, No. 4 (July/August 1986), pp. 39–44. DOI: 10.2469/faj.v42.n4.39.

The study decomposed pension-plan performance into investment policy, market timing and security selection. Its best-known result was that policy asset allocation explained 93.6% of the variation in a plan’s quarterly returns over time—not 93.6% of the level of total return. BHB therefore provides the starting point for the paper’s discussion of how broad capital-allocation decisions influence portfolio behavior.

A note on interpretation. Chris R. Hensel, D. Don Ezra and John H. Ilkiw, “The Importance of the Asset Allocation Decision,” *Financial Analysts Journal*, Vol. 47, No. 4 (July/August 1991). Hensel, Ezra and Ilkiw argued that BHB’s results depend on the baseline used. Their critique reinforces the importance of distinguishing the return provided by broad market exposure from value added through portfolio implementation—a distinction that becomes particularly relevant when considering whether exposures should remain static across changing market conditions.

Ibbotson and Kaplan (2000)

Roger G. Ibbotson and Paul D. Kaplan, “Does Asset Allocation Policy Explain 40, 90, or 100 Percent of Performance?” *Financial Analysts Journal*, Vol. 56, No. 1 (January/February 2000), pp. 26–33. DOI: 10.2469/faj.v56.n1.2327.

Ibbotson and Kaplan separated three questions: how much policy explains a fund’s variability through time, differences in long-term returns among funds, and the average return level. Using balanced mutual funds and pension funds, they found roughly 90% for time-series variability, about 40% for cross-sectional return differences, and approximately 100% for the average return level. The distinction leaves meaningful room for implementation, manager selection, costs and active decisions to affect differences in outcomes among funds.

Sharpe (1991)

William F. Sharpe, “The Arithmetic of Active Management,” *Financial Analysts Journal*, Vol. 47, No. 1 (January/February 1991), pp. 7–9. DOI: 10.2469/faj.v47.n1.7.

Sharpe established an arithmetic identity: before costs, active investors in aggregate must earn the return of the market they collectively own; after costs, the aggregate active return must be lower. This is an aggregate statement, not a claim that no individual manager can outperform. Here, Sharpe helps distinguish the average result for active management from the separate question of whether particular managers or processes can generate persistent positive active returns.

06

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