

**Does Asset Allocation Policy Explain
40%, 90%, or 100% of Performance?**

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Full article printed in the *Financial Analysts Journal*,
January/February 2000

Does Asset Allocation Explain 40%, 90%, or 100% of Performance?

The answer to the question in the title depends on how you ask the question and what you are trying to explain. According to the well-known studies by Brinson et al., more than 90% of the variability of a portfolio's performance over time is due to asset allocation. In other words, market movement of the asset classes in which you are invested dictates 90% of the movement of your portfolio. So if you are trying to explain the *variability* of returns over time, asset allocation is very important.

Unfortunately, the Brinson studies are often misinterpreted. The 90% result has commonly been used to explain the *amount* of a typical fund's return and how much impact asset allocation has on the different returns between funds, i.e. *across funds*. To answer these questions a different study is required.

To address the controversy about the importance of asset allocation policy, we formulate three distinct questions:

- 1) What portion of the return *amount* is explained by asset allocation?
- 2) How much of the variation of returns *across funds* is explained by differences in asset allocation?
- 3) How much of the *variability* of returns across time is explained by asset allocation?

We believe that much of the controversy about the importance of asset allocation is due to treating the answer that Brinson et al. provided to question (1) as an answer to questions (2) and (3). The purpose of this paper is to address the controversy by asking and answering *all three* questions.

Data Sources and Methodology

We look at ten years of monthly returns on 94 balanced mutual funds and five years of quarterly returns on 58 pension funds. The 94 funds are all of the balanced funds in the Morningstar universe that have at least ten years of data ending March 31, 1998. Policy weights for each fund were estimated using returns-based style analysis over the entire 120-month period.

The same type of analysis was performed on quarterly returns of 58 pension funds over the five-year period 1993-1997. However, rather than using estimated policy weights and the same asset class benchmarks for all funds, the actual policy weights and asset class benchmarks of the pension funds were used. In each quarter, the policy weights were known in advance of the realized returns.

What portion of the return *amount* is explained by asset allocation policy?

Individual investors frequently misunderstand the results of the Brinson studies as an answer to this question. To answer question (1) we divide the compound annualized asset allocation policy return by the compound annualized portfolio return over a given time period. In other words, we create a portfolio of benchmark asset classes that matches your asset allocation policy. Then, we divide the return of the benchmark portfolio by your portfolio return. We find that, on average, the ratio is 1.0, or 100%. So, about 100% of the return *amount* is explained by asset allocation policy.

How much of the variation of returns *across funds* is explained by differences in asset allocation?

We answer question (2) by running a cross-sectional regression of entire-period compound annual fund returns on entire-period compound annual policy returns. For the mutual funds studied, 40% of the return difference from one fund to another is explained by policy differences, while for the pension fund sample the result is 35%. Thus, about 40% of the variation of returns *across funds* is explained by policy. For example, if one fund returns 5% more than another, then on average about 2% of the difference (40% of 5%) is explained by a different asset allocation, while the remaining 3% difference (60% of 5%) is explained by security selection, timing, and fee differences between the funds.

How much of the *variability* of returns across time is explained by asset allocation?

Brinson’s study answered this question. Following the same method as Brinson et al. we regress each fund’s total returns against its policy returns. We find that, on average, about 90% of a fund’s fluctuation is due to market fluctuations in the fund’s underlying asset classes—that is, its asset allocation.

Conclusion

Our analysis shows that while asset allocation explains about 90% of the *variability* of a fund’s returns over time, it explains only about 40% of the variation of returns *across funds*.

Furthermore, asset allocation explains a little more than 100% of the *amount* of returns. Thus, the answer to the question, “does asset allocation policy explain 40%, 90%, or 100% of performance?” is “all of the above” since the question can be interpreted in any or all of these three ways.

Measures of Performance	Percent of <i>variability</i> of returns across time explained by asset allocation policy	90%
	Percent of variation of returns <i>across funds</i> explained by differences in asset allocation policy	40%
	Percent of return <i>amount</i> explained by asset allocation policy	100%