

Fiduciary Focus: A Counterintuitive Lesson

W. Scott Simon | 9-02-04 |

Last month in this column, I [pointed out](#) that advisors who market their investment skill exclusively on the basis of return (i.e., their track records) can appear foolish and--what's worse--may be exhibiting imprudent fiduciary conduct.

Advisors can appear foolish because the return generated by an investment or a money manager is a random variable over which they have very little control. In fact, a wide variety of sources tells us that any investment (or money manager) with a good track record from the past is just as likely to perform poorly in the future as it is to continue doing well.

When advisors place undue emphasis on return, they define investment prudence in terms of portfolio performance, not fiduciary conduct. That is directly opposite of how the Uniform Prudent Investor Act defines prudence: in terms of fiduciary conduct not portfolio performance. Advisors that engage in such activities may be exhibiting imprudent fiduciary conduct.

A well-known money manager concedes: "We know that the past [i.e., superior track records] is meaningless [as a way to find future investment winners], but it is all we have." This money manager obviously understands that track record investing has no value. He seems unconcerned, though, about his knowing participation in an activity he deems useless. This remarkable acknowledgment--particularly coming from someone that manages billions of dollars--can result, I would argue, in imprudent fiduciary conduct.

But is it really true that track record investing (and identification of investment skill itself) is "all we have"? Decidedly not! Although it seems counterintuitive, advisors can enhance portfolio wealth more effectively by consciously managing risk rather than trying to score big in the random game of identifying investment winners.

In short, the better way to increase return is to concentrate more on managing risk and less on trying to increase return via stock-picking or market timing.

This approach to investing and managing the portfolios of your clients is fully in accord with the principles of modern prudent fiduciary investing. It seems, though, as noted, to be counterintuitive: "Say what? You're telling me that the better way to increase return is to manage risk instead of trying to pick investment winners? What are you smoking, dude?"

I'm not smoking anything (well, at least I'm not inhaling). In fact, a little-known mathematical rule known as "variance drain" shows advisors why emphasizing management of portfolio risk instead of attempting to pick investment winners can lead to enhanced portfolio return.

Variance drain holds that, as between two portfolios with the same beginning value and the same average return, the one with the greater variance will have a lower compound return and thus less

ending wealth. Before providing an example of variance drain, it may be helpful to define the meaning of variance, average return, and compound return.

Variance is a measure of portfolio risk. (Those of you used to seeing standard deviation employed as a measure of risk will be comforted to know that standard deviation is the square root of variance, and that variance is the square of standard deviation.)

More expansively, variance measures the degree to which the period-by-period returns (-11% in 2001, -18% in 2002, and +21% in 2003, for example) of a portfolio are expected to deviate from the statistically expected mean return (+10%) of the portfolio for a given period of time (2001-2003). The more the returns are expected to deviate from the portfolio's expected return, the greater the variance of the portfolio--and the greater its risk. As Nobel Laureate Harry Markowitz made clear in his seminal article on Modern Portfolio Theory in 1952, variance of return (i.e., risk) can be minimized for a given level of expected return.

Average return is determined by adding up the individual returns over a number of periods (such as years) and then dividing that sum by the number of periods. Compound return is determined by taking the total return over a number of periods and raising that to the power of one over the number of periods, then subtracting one.

The following example shows how variance drain can, unexpectedly, penalize those that attempt to maximize portfolio return. Those of you that are as mathematically challenged as I am can ignore the calculations in the brackets; they are included only to satisfy those with mathematical brains superior to us dummies. Just take your time and go through the example slowly.

Assume that Portfolio A has \$100 and achieves a +10% return in year one and a -10% return in year two. The portfolio's average return is 0% per year [$10\% - 10\% = 0 \div 2 = 0$]. Assume that Portfolio B has \$100 and achieves a +30% return in year one and a -30% return in year two. The average return of this portfolio is also 0% per year [$30\% - 30\% = 0 \div 2 = 0$].

Both portfolios obviously have the same beginning value (\$100) and the same average annual return (0%). The compound returns of the portfolios are different, though, because Portfolio B has greater variance of returns (+30% and -30%) than Portfolio A (+10% and -10%). This means that the ending values of the portfolios will also be different.

The compound return of Portfolio A is -0.5% per year [$\sqrt[2]{(1+.1)(1-.1)} - 1$], which results in an ending value of \$99 [$\$100 \times \{(1-.005)^2 - 1\}$]. The compound return of Portfolio B is -4.61% per year [$\sqrt[2]{(1+.3)(1-.3)} - 1$], which results in an ending value of \$91 [$\$100 \times \{(1-.0461)^2 - 1\}$].

Both portfolios are penalized by variance of return, but Portfolio A's series of returns has a lower variance (1%) than Portfolio B's (9%). As a result, Portfolio A suffers a smaller penalty (an ending value of \$99) than Portfolio B (an ending value of \$91). This means that Portfolio B has an actual dollar loss that is nine times greater than Portfolio A (-\$9 vs. -\$1)--even though both portfolios have the same average return (0% per year).

To summarize: When there are two portfolios with the same beginning value and the same average return, the portfolio less diversified (by definition, since its manager seeks to maximize portfolio return by trying to find a relatively few concentrated winners that will beat the market) will have a larger variance and a lower compound return than the well-diversified portfolio with a smaller variance and a higher compound return. The bottom line: The well-diversified portfolio usually generates more ending wealth than the less diversified portfolio.

The mathematical rule of variance drain means that efforts to maximize percentage return in each time period with the goal of maximizing long-term dollar values increases the possibility that there will be a shortfall in expected dollar values. Counterintuitively, then, an advisor may fail to carry out its client's objectives not because it didn't seek to maximize return, but because seeking maximum return is often inconsistent with maximizing the probability of a successful outcome in expected dollar values.

Given extreme volatility in percentage returns over extended time periods, variance drain can affect ending dollar values dramatically. For example, during the decade of the 1930s, when U. S. small-company stocks plunged in value and experienced equally dramatic rebounds, this asset class achieved an average return of 19.72% per year. But compound return, which summarizes the accumulation of actual ending wealth in a portfolio, was just 1.38% per year during that decade.

The (counterintuitive) lesson for advisors: Reducing portfolio variance of returns--that is, keeping the size of fluctuations in portfolio values low--is a more effective way of enhancing wealth than trying to score big in the random game of identifying investment winners.

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Simon provides services as a consultant and expert witness on fiduciary issues in litigation and arbitrations. He is a member of the State Bar of California, a Certified Financial Planner® and an Accredited Investment Fiduciary Auditor™. Simon's certification as an AIFA™ qualifies him to conduct independent fiduciary reviews for those concerned about their responsibilities investing the assets of endowments and foundations, ERISA retirement plans, private family trusts, public employee retirement plans as well as high net worth individuals.

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