Why Manage Risk?

By focusing on rate of return and ignoring risk, investors may actually torpedo themselves. High-risk strategies, even those that have high returns, may actually decrease the chance of an investor having a successful experience. Within a wide band investors may be far better served to focus on managing risk than stretching for additional return.

Investors focus with a laser-like intensity on a single factor of investment success: rate of return. It's simple to understand and reduces the entire multidimensional problem to a single number. A good strategy, or investment manager, has a high rate of return. A bad strategy or investment manager has a low rate of return. If only life were that simple!

Managing risk isn't nearly as glamorous as generating excess returns. But, excess returns are elusive while basic risk management is easily achieved.

Few investors have an intuitive feel for the impact of risk. Just mention standard deviation and most of them will his zone right out. It would be helpful if we replaced the term standard deviation with relative risk rating. It also should be required that fund managers place equal emphasis on risk rating along with rate of return and publish relevant comparative data for the appropriate indexes.

A primary duty of any fiduciary is to carefully weigh the tradeoffs between risk and return. Holding returns constant, a lower risk portfolio will have higher median returns. The primary tool in risk management is diversification which reduces risk without compromising rate of return.

While it's possible to imagine an infinite number of portfolios that might generate a 10% average return, only one of those will have the minimum risk level.

An investor choosing the between two strategies with equal expected returns would certainly prefer the one with a lower risk. Lower risk not only reduces the dispersion of returns it increases both median and average returns. High-risk strategies may produce a few winners with outsized returns, but many more investors will experience substandard and unsatisfactory results.

Investors are concerned with the certainty of results. After all, if you are a dead broke it's a small consolation that somewhere else in an alternative universe is an investor who struck it rich.

An accumulation example

Here's a table showing the distribution of returns for at different theoretical risk levels. We assume a 10% average return, a one hundred thousand dollar beginning balance, 30 year time frame, standard deviations of 10%, 20% and 30% respectively. Feeding these assumptions into a Monte Carlo simulator shows just how important managing risk is.

Standard Deviation
10%
20%
30%

As you can see, as risk levels increase while holding rate of return constant, results become skewed. The average returns are virtually identical. However, fewer and fewer trials result in average returns. Both the best results and worst become more extreme. The higher dispersion of returns introduces an entire new dimension of risk.

A very few trials yield mega results, balancing out the trials that fall under the average. Importantly, the median result decreases precipitously as risk increases. Median results are what the investor might expect rather than the average. More and more trials fall below the average result. This lower median return is the “cost” of the higher risk strategy.

This finding is consistent with the widely understood concept of variance drag. Because of variance drag, average (arithmetic) returns are always above compound (geometric) returns by an amount which increases as the volatility of the portfolio increases. Only in the case of no volatility are they the same.

Managing risk is every bit as important as targeting a rate of return. Volatility reduces the returns that investors care about which is the compound return that actually ends up in their pockets.