PRIVATE WEALTH MANAGEMENT

Goals-Based Investing: Integrating Traditional and Behavioral Finance

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The author contends that traditional investment planning fails to recognize investors' behavioral preferences and biases, resulting in suboptimal performance. He proposes to integrate behavioral finance into the investment process by recasting risk–reward measures into a framework based on the investor's goals.

The recent bear market reinforced the value of diversification and modern portfolio theory. Behavioral preferences and biases, however, prevented many investors from enjoying those benefits. Rather than simply relying on traditional measures of annualized return and standard deviation, the author advises recasting such information in terms of meeting or failing to meet investor goals over the investment horizon. Such a custom approach, although more complex, should clarify risk exposure and boost investors' confidence. The author outlines the strengths and shortcomings of traditional measures and explains how to reconcile them with a goals-based approach.

Traditional risk measures do not fully capture market behavior and are of limited relevance to investors. Standard deviation assumes a normally distributed return pattern despite ample evidence of skewness, kurtosis, and heteroscedasticity. Behavioral finance also shows that investors are not risk averse but loss averse, suggesting measures based on the likelihood of loss, severity of loss (downside deviation—Nawrocki, *Journal of Investing*, 1999), or both.

Furthermore, expressing risk measures in terms of time intervals does not capture investor risk exposure to successive losses or to risks that come and go before the end of the period. The author advocates measuring risk as violating investor preferences or goals without specifying a time period. Although these measures are more difficult to calculate than such statistical measures as standard deviation, they can be based on Monte Carlo simulations and should be better aligned with the way investors perceive risk.

The traditional approach to risk profiling can be misleading. Interviews and questionnaires have been shown to have limited accuracy. But even accurate risk tolerance measures can lead to poor strategy implementation. A risk-tolerant investor does not need to hold a risky portfolio if a conservative portfolio will achieve his or her goals, nor is there merit in a conservative strategy that is unlikely to meet the investor's return objectives, even if the investor is risk averse. Furthermore, investors tend to have different risk tolerances for different objectives. Such mental accounting is difficult to incorporate into the traditional overall framework, which requires a single, overall risk tolerance. The alternative is to develop multiple strategies that can then be integrated into an overall portfolio by the advisor.

In addition to investor preferences, such as mental accounting and loss aversion, behavioral finance identifies investor biases, such as overconfidence, hindsight bias, overreaction, belief perseverance, and regret avoidance. The author contends that a goals-oriented approach helps investors avoid such biases.

A fully customized goals-based approach is complex, but strategies could be built around common goals, such as college saving, by simply pulling together investor-appropriate strategies. The author illustrates goals-based strategies for investing to meet lifestyle needs and for investing for a fixed horizon that can be modeled as an efficient frontier.

To plan for lifestyle needs, the author recommends defining reward as the expected sustainable spending rate of a given strategy and defining risk as the minimum sustainable spending rate. Risk and reward are then measured over the entire horizon rather than annualized. The author points out that institutional investors have long used asset/liability models to assess the implications of strategies and

suggests that individual investors who tend to be less familiar with theory and statistics would likely benefit from such analysis. Furthermore, the practitioner can align the results with traditional investment strategy because expected spending is derived from expected return and the minimum spending rate is derived from downside risk. The process would likely result in portfolios managed in absolute—rather than relative—terms.

To invest for a fixed horizon, the author suggests using expected portfolio value as the reward measure. Risk can be measured as the potential for loss or as the worst-likely portfolio value. In addition, the risk-free investment is defined as a zero-coupon Treasury maturing at the investment horizon. In conjunction with the risk-free asset, the remaining assets could be managed aggressively for return while assuring the minimum acceptable outcome. The practitioner must then determine whether such a portfolio may be too conservative, whether the horizon may change (rendering the zero risky), whether the return on the zero is sufficient, and whether the investor can tolerate interim volatility of the zero despite its ultimate certain value.

The author concludes that incorporating goals-based investing improves traditional investing in terms of measuring risk, profiling risk, and managing behavioral biases. At the same time, goals-based investing integrates the findings of behavioral finance within the context of portfolio theory.