

Required or desired returns? That is the question Vanguard Research April 2016

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- Investors who seek help with financial planning often come prepared with a target in mind as the return objective for their portfolio. However, for many investors, return objectives are rather subjective and influenced by factors (such as advertisements of fund performance, other media, or just "keeping up with the Joneses") that tend to inflate expectations. After all, higher returns are "better"—all else equal—right?
- Of course, with investing, all else isn't equal: Higher returns are associated with higher risk in the long run. Other investors may insist they want no risk at all, ignoring the potential threat to their future wealth. Advisors who help clients understand the often-overlooked difference between *required* returns and *desired* returns can provide a valuable contribution to those clients' investment outcomes.

It's often said that many people spend more time planning a two-week vacation than they do on their investment plan. Experience suggests that this witticism is not far off the mark. On their own, investors often ignore the important planning phase, focusing instead on filling their portfolios with investments featuring attractive recent returns. This is akin to buying the building materials for a house before the architect has drawn up the blueprints. Advisors who help their clients begin the investment process by understanding their objectives and constraints, and then help them use that knowledge to develop a formal investment plan, have armed those clients well for the uncertainty that investing entails.

Finding the return that fits the client

The financial planning process should result in an estimate of the return needed to accomplish an investor's objectives, taking into account that client's unique goals, time horizon, current asset base, liquidity needs, savings behavior, tax sensitivity, and risk tolerance, among other factors. This return—the *required return*—is typically a real (inflation-adjusted) return with an assumed inflation rate over the investment horizon.

Determining the required return can serve an important function in planning: to help narrow the range of asset allocation choices to a more manageable few. Most important, it helps frame the investment strategy around the investor specifically, rather than the pursuit of returns more generically. The required return is the return necessary to accomplish the goals that the investor has determined to be most important while bearing the level of risk that the investor feels is most palatable.

Desired versus required returns

A return objective that is different from the required return can be viewed as the investor's *desired return*. This may be the result of a number of influences, such as the investor's own past experience, expectations set by historical returns, or the investment media in general. Although required returns are an *output* from the investment plan, desired returns are an *input*—that is, a return target based on want more than need.

Potential pitfalls of desired returns

The key point about desired returns is that they are usually the product of some exogenous influence that is largely unrelated to the investor's objectives and constraints. In some cases, investors' own experiences can set them on the wrong path for success as they've defined it.

Maybe a recent market event has made an investor highly risk-averse and led him or her to focus on capital preservation. Devotion to investments such as certificates of deposit or money market mutual funds can make a goal of wealth creation extremely difficult to reach. For such investors, the required return is likely higher than the desired return, meaning that unless they can accept more risk, they will need to reduce their wealth goal, increase their saving rate, or both.

Other investors may expect market returns similar to those of the last 30 or 40 years, since that time parallels their own investment experience (Figure 1). From 1969 through 2015, the broad U.S. stock market returned about 10% annually, similar to the longer-run average for 1926–2015. However, the return on a 50% stock/50% bond balanced portfolio since 1969 was almost

Notes on risk

All investing is subject to risk, including the possible loss of the money invested. There is no guarantee that any particular asset allocation or mix of funds will meet an investor's objectives or provide a given level of income. Bond funds are subject to the risk that an issuer will fail to make payments on time, and that bond prices will decline because of rising interest rates or negative perceptions of an issuer's ability to make payments. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index. Diversification does not ensure a profit or protect against a loss in a declining market. Past performance is no guarantee of future returns.

Figure 1. U.S. market returns from a historical perspective

Nominal and real (inflation-adjusted) returns for 1926-2015 and for each portion of that period

| Average annual returns | | | | | |
|--------------------------|--|---|--|--|---|
| First part: 1926–1968 | | Second part: 1969–2015 | | Full period: 1926–2015 | |
| Nominal | Real | Nominal | Real | Nominal | Real |
| 3.36% | 1.73% | 7.45% | 3.13% | 5.40% | 2.42% |
| 5.19 | 3.52 | 8.25 | 3.89 | 6.70 | 3.68 |
| 6.01 | 4.34 | 8.61 | 4.24 | 7.28 | 4.25 |
| 6.78 | 5.10 | 8.93 | 4.55 | 7.82 | 4.77 |
| 7.50 | 5.80 | 9.24 | 4.84 | 8.32 | 5.25 |
| 8.15 | 6.44 | 9.51 | 5.10 | 8.77 | 5.69 |
| 8.75 | 7.03 | 9.75 | 5.34 | 9.18 | 6.09 |
| 9.29 | 7.56 | 9.97 | 5.54 | 9.54 | 6.44 |
| 10.18 | 8.44 | 10.30 | 5.86 | 10.13 | 7.02 |
| 1.74 | 0.13 | 5.21 | 0.97 | 3.48 | 0.55 |
| | 1926- Nominal 3.36% 5.19 6.01 6.78 7.50 8.15 8.75 9.29 10.18 | 1926–1968 Nominal Real 3.36% 1.73% 5.19 3.52 6.01 4.34 6.78 5.10 7.50 5.80 8.15 6.44 8.75 7.03 9.29 7.56 10.18 8.44 | First part: 1926–1968 Nominal Real Nominal 3.36% 1.73% 7.45% 5.19 3.52 8.25 6.01 4.34 8.61 6.78 5.10 8.93 7.50 5.80 9.24 8.15 6.44 9.51 8.75 7.03 9.75 9.29 7.56 9.97 10.18 8.44 10.30 | First part: 1926–1968 Second part: 1969–2015 Nominal Real Nominal Real 3.36% 1.73% 7.45% 3.13% 5.19 3.52 8.25 3.89 6.01 4.34 8.61 4.24 6.78 5.10 8.93 4.55 7.50 5.80 9.24 4.84 8.15 6.44 9.51 5.10 8.75 7.03 9.75 5.34 9.29 7.56 9.97 5.54 10.18 8.44 10.30 5.86 | First part: 1926–1968 Second part: 1969–2015 Full p 1926 Nominal Real Nominal Real Nominal 3.36% 1.73% 7.45% 3.13% 5.40% 5.19 3.52 8.25 3.89 6.70 6.01 4.34 8.61 4.24 7.28 6.78 5.10 8.93 4.55 7.82 7.50 5.80 9.24 4.84 8.32 8.15 6.44 9.51 5.10 8.77 8.75 7.03 9.75 5.34 9.18 9.29 7.56 9.97 5.54 9.54 10.18 8.44 10.30 5.86 10.13 |

Notes: Return data are based on quarterly rebalancing. When determining which index to use and for what period, we selected the index that we deemed to fairly represent the characteristics of that market, given the information currently available. For U.S. stock market returns, we used the Standard & Poor's 90 from 1926 through March 3, 1957; Standard & Poor's 500 Index from March 4, 1957, through 1974; Wilshire 5000 Index from 1975 through April 22, 2005; MSCI US Broad Market Index from April 23, 2005, through June 2, 2013; and CRSP U.S. Total Market Index thereafter. For U.S. bond market returns, we used the Standard & Poor's High Grade Corporate Index from 1926 through 1968; Citigroup High Grade Index from 1969 through 1972; Lehman Brothers U.S. Long Credit AA Index from 1973 through 1975; Barclays Capital U.S. Aggregate Bond Index from 1976 through 2009; and Barclays U.S. Aggregate Float Adjusted Bond Index thereafter. For U.S. cash reserve returns, we used Ibbotson 1-Month Treasury Bill Index from 1926 through 1977 and Citigroup 3-Month Treasury Bill Index thereafter.

Sources: Vanguard calculations, based on data from Standard & Poor's, Dow Jones & Co., MSCI, Citigroup, CRSP, Barclays, and Morningstar, Inc.

as high—more than 9%, far above the long-run average—thanks to extremely strong gains by U.S. bonds following the historic peak in interest rates in the early 1980s. While on its face a 50%/50% portfolio may seem a reasonable, middle-of-the-road baseline for long-term return expectations, in fact it would be a thoroughly imprudent benchmark for that purpose now. In this regard, things *are* different today, because the double-digit interest rate declines that fueled those well-above-average bond returns certainly are not probable in today's environment.

Still other influences abound, from the "bestperforming funds" lists and advertisements to the friends-and-neighbors effect, otherwise known as "keeping up with the Joneses." All of these sources can make it seem reasonable, and even easy, to achieve higher returns. In some ways the underlying thinking seems quite logical—comparing returns for funds of similar styles, or investors with similar characteristics—but therein lies the error: Similar is usually not similar enough to be relevant. Each portfolio should be built to reflect the specific needs of the individual or institution that it serves, not as a base for trying to outperform a "peer group" of investors whose unique needs have led to largely dissimilar objectives and constraints.

Use required returns to help improve the probability of investment success

Not surprisingly then, it is common for a client's desired return to be *much* higher than the required return. This can result in an allocation skewed—sometimes quite heavily and unnecessarily—toward higher-risk assets, which in turn can lead to problematic outcomes.

Investment plans based on desired return, if higher than the required return, can unnecessarily increase the short-run volatility in the portfolio's value, which may be more than some investors are able to bear.

Helping clients to set expectations using required returns is likely to improve their chances of meeting their long-term financial goals, and it may even create more wealth for them in the end. In part this is because an asset allocation targeting the required return is likely to be more conservative. While it is true that a more conservative portfolio can reasonably be expected to provide lower relative returns, it is also true that the lower volatility associated with such a portfolio can help the investor to stay with it for the long run and thus have a better chance to capitalize on the expected long-term risk premia.

Investors who are aware of their required return may also find it easier to maintain their planned capital contributions through savings and retirement plans, an important tool for creating wealth.

Conclusion

Understanding the difference between required and desired returns can be highly beneficial to a client. Although the required return is often overlooked, we believe it is the most logical and relevant measure for

a portfolio's "success"—much more so than an arbitrary return targeted for reasons unrelated to the investor's unique circumstances. Expectations based on historical asset-class return relationships¹ may be helpful, but only if the investor first recognizes that returns have been—and should continue to be—highly variable in the short term. With investing, time is of the essence, but patience and discipline are more so.

Many investors will find that the return necessary to achieve their long-term goals is meaningfully less than their desired return. This means that their portfolios can include higher allocations to assets with more certain values in the future, helping them to temper portfolio volatility and, in turn, the temptation to make radical changes during times of market duress. A further benefit: Although there will always be investors who desire higher returns, this framework may help make it obvious that the extra risk they are taking in pursuit of higher returns is being undertaken voluntarily; that is, because they want higher returns, not necessarily because they need them.

Ironically, for many investors the means to a better investment outcome and greater wealth may be a more balanced portfolio with *lower* expected returns, rather than one focused on higher returns. Headlines and hyperbole can change daily. An investor's longer-term objectives, however, are far less variable.

1 Although the returns of an asset allocation in the future will not exactly repeat historical returns, certain past relationships do offer a reasonable basis for expectations. For example, although equity and bond risk premia (relative to less price-variable assets such as U.S. Treasury bills) can and do change over time, it would seem reasonable for investors to expect higher long-term returns as an incentive to bear the higher risks associated with equities and bonds.

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