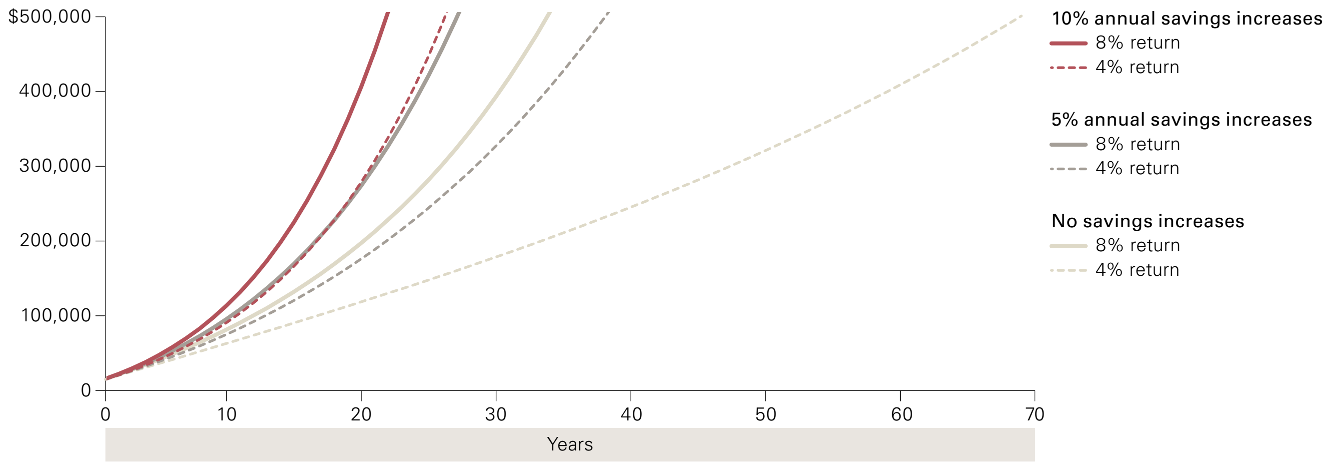
Maintain perspective and long-term discipline

Increasing the savings rate can dramatically improve results

Years needed to reach a target using different contribution rates and market returns



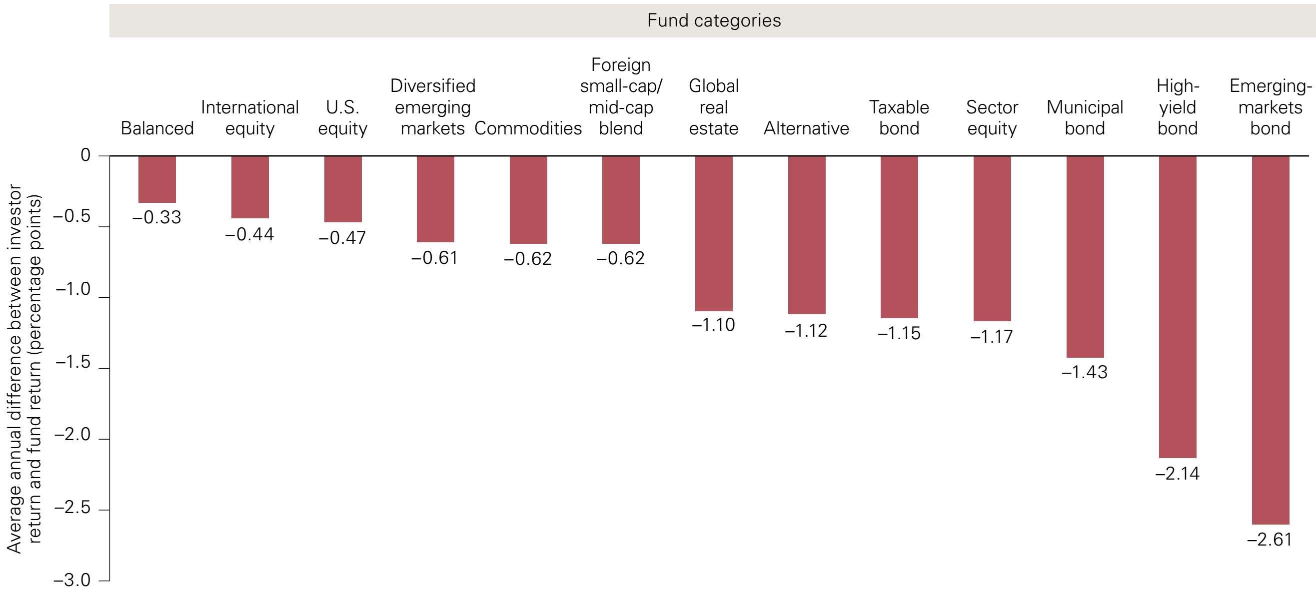
Notes: *Past performance is not a guarantee of future results.* This hypothetical example does not represent the return on any actual investment. The calculations assume a starting balance of $10,000; an objective of $500,000; and a contribution of $5,000 each year. Contributions are not adjusted for inflation, but the portfolio balance and the portfolio objective are adjusted for inflation at each year-end.

Source: Vanguard.

- Increasing the savings rate can have a substantial impact on wealth accumulation. To meet any objective, one must rely on the interaction of the portfolio's initial assets, the contribution or spending rate over time, the asset allocation, and the return environment over the duration of the time horizon.
- Because the future market return is unknowable and uncontrollable, investors should focus on factors that are in their control—namely asset allocation and the amount contributed to or spent from the portfolio over time.
- The adjacent figure shows a simple example of the power of increasing contribution rates to meet a given objective. It reinforces the idea that a higher contribution rate can be a more powerful and reliable contributor to wealth accumulation than trying for higher returns by increasing the risk exposures in a portfolio.

How investors' returns lagged their funds' returns, 2002–2016

When investors chase performance, they often get there late



Notes: The average difference is calculated based on Morningstar data for investor returns and fund returns. Morningstar Investor Return assumes that the change in a fund's total net assets during a given period is driven by market returns and investor cash flow. To calculate investor return, the change in net assets is discounted by the fund's investment return to isolate the amount of the change driven by cash flow; then a proprietary model is used to calculate the rate of return that links the beginning net assets and the cash flow to the ending net assets.

Sources: Morningstar and Vanguard calculations. Data cover the period from January 1, 2002, through December 31, 2016.

- In volatile markets, with very visible winners and losers, market-timing is a dangerous temptation. However, the opportunities that are clear in retrospect are rarely visible in prospect.
- The adjacent figure shows the typical investor's track record, looking at the difference between the average annual returns achieved by the funds and by investors, based on their buy/sell decisions. Note that investors in niche funds have often earned much less than the funds themselves—in part because many invest only after a fund starts looking "hot."
- Because investing evokes emotion, investors should arm themselves with a long-term perspective and a disciplined approach. Abandoning a planned investment strategy can be costly, and research has shown that some of the most significant derailers are behavioral: the failure to rebalance, the allure of market-timing, and the temptation to chase performance.

For more information about Vanguard funds, contact your financial advisor to obtain a prospectus or, if available, a summary prospectus. Investment objectives, risks, charges, expenses, and other important information about a fund are contained in the prospectus; read and consider it carefully before investing.

All investing is subject to risk, including possible loss of principal. Diversification does not ensure a profit or protect against a loss.

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