

# Is the 4 Percent Rule Too Low or Too High?

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In his October 1994 article for the *Journal of Financial Planning*, William Bengen brought more rigor to our understanding of sustainable withdrawal rates by demonstrating the role of sequence of returns risk. The sustainable withdrawal rate can fall well below that implied by the average portfolio return over the retirement period, because a market decline early in the retirement period digs a hole that is difficult to overcome. Naturally, Bengen could use many simplifying assumptions in his research, since he aimed to show how sequence risk should temper client expectations downward from numbers like 7 percent. But the idea of the 4 percent rule took hold.

Historically in the United States, one could withdraw 4 percent of his or her retirement date portfolio, adjust this amount for inflation in subsequent years, and sustain withdrawals over 30 years using a diversified portfolio with 50 percent to 75 percent stocks.

This does not mean that retirees should always use a 4 percent withdrawal rate. By adding greater realism

to the underlying assumptions, one can identify a number of factors suggesting numbers both higher than and lower than 4 percent. Some of these factors require specific knowledge about a client's circumstances and preferences, suggesting an important role for planner expertise and communication with clients.

“Clients who pay investment fees ... cannot rely on 4 percent working for them.”

## Reasons Why a 4 Percent Withdrawal Rate May Be Too High

**Limited historical experience.** The U.S. historical experience does not provide a long enough timespan to be confident about 4 percent as a worst-case scenario withdrawal rate. My first article published in the *Journal* (“An International Perspective on Safe Withdrawal Rates: The Demise of the 4 Percent Rule?” December 2010) demonstrated how the 4 percent rule has not worked nearly as well in most other countries except Canada. And my research with Michael Finke and David Blanchett suggests less confidence for 4 percent in the current low interest rate environment (“The 4 Percent Rule Is

Not Safe in a Low-Yield World,” from the June 2013 *Journal*). With low yields, clients may be pushed to spend principal, digging a hole for their portfolio that will be hard to overcome even if interest rates rise back to historical averages in the next five to 10 years.

**Fees and investment performance.** The 4 percent rule is based on an assumption that investors precisely earn the underlying indexed market returns with annual rebalancing. Clients who pay investment fees or who otherwise underperform the indices because of poor timing or asset selection decisions cannot rely on 4 percent working for them. With returns of 1 percent less than market indices, which could result from fees or underperformance, the safe withdrawal rate falls by about 0.5 percent.

**Taxes.** The 4 percent rule is based on a tax-free or tax-deferred portfolio. For those spending from a taxable portfolio, taxes will play a bigger role than one may expect. Not only are taxes paid on withdrawals, but taxes must also be paid on reinvested dividends, interest, and capital gains when they accrue. This limits the opportunity for compounding growth as assets are also removed for tax payments.

**Bequest motives.** The 4 percent rule assumes a retiree has no desire to leave a bequest or to build in an additional safety margin. In the worst-case scenario, wealth depletion can be expected. This causes the retiree to play a game of chicken as wealth plummets toward zero. Building in an additional safety

margin further reduces the sustainable withdrawal rate.

**Planning horizon, part 1.** The 4 percent rule is based on a planning horizon of 30 years. When Bengen prepared his initial research, this was a conservative assumption for the longest living member of a 65-year-old couple. Today this is no longer the case. Recent estimates from the Society of Actuaries suggest that 30 years is about the life expectancy for the longest living member of a healthy and educated 65-year-old couple. A conservative projection these days may be 35 to 40 years, which may require an additional 0.5 percent reduction for the safe withdrawal rate.

### Reasons Why a 4 Percent Withdrawal Rate May Be Too Low

Not all of the news for the 4 percent rule is bad. Clients may still decide to spend at 4 percent or higher.

**Broader global diversification.** The 4 percent rule assumes only a few asset classes are used in client portfolios. What matters for sustainable withdrawal rates is the interaction of portfolio returns and volatility. Creating a more globally diversified portfolio can potentially produce return/volatility characteristics supporting a higher withdrawal rate. Similarly, advisers who implement strategies that reduce some of the downside volatility for client portfolios through the use of financial derivatives or other strategies can justify supporting a higher withdrawal rate.

**Planning horizon, part 2.** An 85-year-old client does not necessarily need to be constrained to the 4 percent rule. It is important to remember that the 4 percent rule is based on a 30-year horizon. Sustainable withdrawal rates increase accordingly for shorter horizons. For instance, keeping Bengen's other assumptions the same, the worst-case withdrawal rate over 10 years is close to 8 percent, and over 15 years is close to 6 percent.

**Optimal drawdown strategies.** Academics generally frown upon the 4 percent rule as an inferior spending strategy. Moshe Milevsky and Huaxiong Huang summarized this well in a March/April 2011 *Financial Analysts Journal* article when they wrote, "Wealth managers should advocate dynamic spending in proportion to survival probabilities, adjusted up for exogenous pension income and down for longevity risk aversion." Several important points are contained within this sentence. The first idea is that one should intentionally plan to spend more when they are sure to be alive, while reducing spending at a time which may never exist. Otherwise, a client sacrifices too much by cutting spending in early retirement to allow for the same spending much later on when odds of surviving are low. With lower future spending, the initial withdrawal rate can be increased. As well, most clients will have income streams available from outside their financial portfolios ("exogenous pension income"), such as Social Security. This reduces the impact of financial asset depletion, which could make a client more comfortable with spending more aggressively above a safe rate.

Finally, both of these factors will be tempered somewhat to the extent that a client is particularly fearful of outliving their financial assets. Greater aversion requires planning for less spending over a longer time horizon, and it also increases the attractiveness of payouts from income annuities.

**Spending may decline with age.** For biological reasons, spending may naturally decline as people reach higher ages. The 4 percent rule assumes constant spending in inflation-adjusted terms throughout the retirement period, but actual retirees do tend to reduce their discretionary expenditures as they age and spend more time at home. On the other hand, health expenses tend to

rise with age. To the extent that spending can be assumed to decline at higher ages, a client is justified to use a higher initial withdrawal rate at the start of retirement.

**Adjust spending for portfolio performance.** Optimal retirement income strategies will involve changing one's spending in response to evolving market returns and their impact on wealth. The constant inflation-adjusted withdrawal strategy from a volatile portfolio without guarantees is inferior to other strategies no matter the types of evaluation measures or retiree circumstances. Both Bengen and Jonathan Guyton explored this issue starting more than a decade ago in the *Journal*. In his October 2004 article ("Decision Rules and Portfolio Management for Retirees: Is the 'Safe' Initial Withdrawal Rate Too Safe?"), Guyton analyzed how the initial withdrawal rate could be increased when clients are comfortable making reductions to their inflation-adjusted spending after portfolio declines cause their current withdrawal rate to exceed specified thresholds.

The 4 percent rule and the probability of running out of financial wealth are just one piece of a larger puzzle that needs to be solved to help clients fully enjoy their retirement. For many clients, 4 percent should not be treated as safe. Nevertheless, that does not necessarily mean that a higher withdrawal rate must be avoided.

Determining how to combine all of these factors requires experience and careful consideration by the planner. Two articles that go into greater depth about combining various considerations like those described above include Bengen's August 2006 *Journal* article, "Baking a Withdrawal Plan 'Layer Cake' for Your Retirement Clients," and Michael Kitces' "20 Years of Safe Withdrawal Rate Research" published in the March 2012 issue of *The Kitces Report*. ■