



## It's Worth Repeating – What is Your Portfolio Withdrawal Rate?

We discussed portfolio withdrawal rates in a prior newsletter and because it's such an important topic, especially during market declines, we are republishing that newsletter here. Although we're focusing on rates of withdrawals here, the contribution rate is just as important— clients actively saving should continue to do so especially during market declines.

Your portfolio withdrawal rate is one of the most important rates you should know and track during your retirement. If the value of your portfolio is \$3,000,000 and you need to withdraw \$90,000 annually for living expenses, your withdrawal rate is 3% ( $\$90,000/\$3,000,000=3\%$ ). If you need to withdraw \$180,000 from a \$3,000,000 portfolio, your withdrawal rate is 6%.

At the end of every year, you should calculate your withdrawal rate. If the withdrawal rate is reasonable (we'll discuss what is reasonable later) and your portfolio increases in value after your withdrawals, you should be able to safely increase your withdrawals to keep up with inflation.

On the other hand, if your portfolio drops in value due to a bear market, it would be best not to increase your withdrawals - and possibility even to reduce them - until your portfolio recovers.

## Reasonable Withdrawal Rates

Reasonable withdrawal rates vary greatly depending on your age, your ability to reduce your withdrawals if there's a downturn, and your desire to increase your withdrawals in line with inflation as the years go by.

Over 20 years ago, Bill Bengen conducted one of the first safe withdrawal rate studies. He published his study in an article entitled, "Determining Withdrawal Rates Using Historical Data". He assumed portfolio withdrawals would increase each year in lockstep with inflation, regardless of portfolio performance. For the rest of this newsletter, we will refer to this approach as traditional safe withdrawal rates (TSWRs).

Bengen concluded that the probability of success over 30 years of an initial withdrawal rate of 4% with annual future inflation increases is 95%. This later became known as the 4% withdrawal rule. Increasing the withdrawal rate to 5% reduced the probability of

## Executive Summary

- One early retirement study noted that a withdrawal rate of 4% is relatively safe.
- Many researchers have evaluated withdrawal rates and related issues since then - proposing adjustments to the traditional 4% rule.
- One such proposal, the Target Percentage Adjustment (TPA) suggests modifying your withdrawals year by year.
- Being flexible in the face of market downturns and inflation can allow you to increase your withdrawals in retirement.
- Be sure to know what your withdrawal rate is from year to year.

success to 82% and increasing it to 6% reduced the probability of success to 61%.

In his study, Bengen modeled the actual market returns through past bull and bear markets rather than assuming hypothetical rates of return.

## The Ability to Reduce or Hold Withdrawals Steady During Bear Markets

Researchers have shown that initial withdrawal rates 50% higher than traditional safe withdrawal rates can be achieved - with the same probability of success - using more flexible withdrawal strategies. David Zolt describes one such strategy in an article entitled, "Retirement Planning by Targeting Safe Withdrawal Rates". He calls this withdrawal strategy the Target Percentage Adjustment (TPA).

This TPA approach requires you to assess and modify your withdrawals year by year. If, in any given year, the withdrawals exceed the target percentage withdrawal rate, the withdrawals for the following year are not increased by the inflation rate. If the actual withdrawal rate is less than the target withdrawal rate, the withdrawals are increased by the inflation rate.

The probability of success over 30 years using an initial withdrawal rate of 6% was 94% using this TPA approach. Using a withdrawal rate of 7% reduced the probability of success probability to 82%; and using an 8% withdrawal rate reduced it to 61%. These higher initial withdrawal rates come with the risk of loss of future purchasing power due to the likelihood that there will be no inflation adjustments in some years.

### Highest Initial Withdrawal Rate

Retirement Duration (Yrs)	Traditional Safe Withdrawal Rates (TSWR)					
	probability of success					
	70%	75%	80%	85%	90%	95%
10	11.5%	11.2%	10.8%	10.5%	10.0%	9.3%
15	8.4%	8.2%	7.9%	7.5%	7.1%	6.5%
20	7.0%	6.7%	6.4%	6.1%	5.7%	5.2%
25	6.1%	5.9%	5.6%	5.3%	5.0%	4.5%
30	5.6%	5.4%	5.1%	4.8%	4.5%	4.0%
35	5.2%	5.0%	4.8%	4.5%	4.1%	3.7%
40	5.0%	4.8%	4.5%	4.2%	3.9%	3.4%

Retirement Duration (Yrs)	Target Percentage Adjustment (TPA)					
	probability of success					
	70%	75%	80%	85%	90%	95%
10	12.9%	12.9%	12.5%	12.2%	11.7%	11.0%
15	10.3%	10.0%	9.7%	9.4%	8.9%	8.3%
20	8.9%	8.7%	8.4%	8.0%	7.6%	7.0%
25	8.1%	7.9%	7.6%	7.3%	6.9%	6.3%
30	7.6%	7.3%	7.1%	6.8%	6.4%	5.9%
35	7.2%	7.0%	6.7%	6.4%	6.1%	5.6%
40	6.9%	6.7%	6.4%	6.1%	5.8%	5.3%

Source: Zolt – Journal of Financial Planning

### Find a Safe Withdrawal Rate Using the Table Above

The table below shows the highest initial withdrawal rates with success probabilities of 70 to 95% for retirement durations from 10 to 40 years in five-year increments using the above two withdrawal methods (TSWR and TPA).

Quickly estimate your withdrawal rate and the duration of your retirement and see what the probability of success is for your withdrawal rate. How does it look? Is the probability of success high enough for your comfort level? Should you decrease your withdrawals to increase your chances of not running out of money? As you can see, a safe withdrawal rate is mainly a function of how long you need the income and how much you will need to increase your withdrawals over the years due to inflation.

### Initial Withdrawal Rates: Success Probability Over 30 Years

The table below does an excellent job of comparing the probability of success for various withdrawal rates using the two previously described withdrawal methods.

In general, for a person retiring at a traditional

retirement age of 65 and planning for a 30-year retirement, we believe an initial withdrawal rate of 5% or less is reasonable assuming one can forego inflation adjustments in years of poor portfolio performance.

### Other Risks and Issues Related to Portfolio Withdrawals in Retirement

What about Timing Retirement with Market Performance? The worst thing that can happen to a new retiree is to experience a severe bear market in the beginning years of retirement. Professionals call this sequence of returns risk. Because of this risk, it is helpful to keep withdrawal rates lower than necessary during the early years of retirement, and to maintain the flexibility to either reduce withdrawals during bear markets or at least forego increasing withdrawals during these periods.

### What about the Effect of Low Interest Rates?

Because we are in such a low interest rate environment, it is hard to earn anywhere close to 4% in guaranteed investments. Some studies have suggested that a withdrawal rate of 3%, not 4%, should now be considered the standard for a very safe withdrawal rate due to our historically low prevailing rates.

### What about the Possibility of Lower Stock Market Returns in the Future?

Some professionals are concerned that equity returns are not going to be as high as they have historically been. If this were to happen, then investors would of course have a harder time supporting higher withdrawal rates. It also implies that a higher risk portfolio may not provide the benefit it once did for a retiree.

### How Much of My Portfolio Should Be in Stocks vs Bonds?

Your level of comfort with market volatility plays a big role in the answer to this question; still, there are guidelines we can use from prior research. In Bill Bengen's 1994 traditional safe withdrawal rate study, he recommended starting retirement with no less than 50% stocks and getting as close to 75% as possible. More recently, some researchers - concerned with future stock

### Initial Withdrawal Rates: Success Probability Over 30 Years

Probability of Success	Success Assessment	TSWR	TPA
95% or >	superb	4.0% or <	5.9% or <
90% to 94%	excellent	4.1% to 4.5%	6.0% to 6.4%
85% to 89%	very good	4.6% to 4.8%	6.5% to 6.8%
80% to 84%	good	4.9% to 5.1%	6.9% to 7.1%
75% to 79%	fair	5.2% to 5.4%	7.2% to 7.3%
70% to 74%	borderline	5.5% to 5.6%	7.4% to 7.6%
69% or <	poor	5.7% or >	7.7% or >

Source: Zolt – Journal of Financial Planning

returns - have suggested starting with 30% stocks and going as high as 60% would be appropriate.

In David Zolt's research, he assumed portfolios were invested 40% in US Large Cap stocks, 10% US Small Cap stocks, and 50% in Intermediate-Term Government bonds.

## Takeaways

Given the risks and uncertainties, we believe that an initial withdrawal rate of 3% to 6% for a 65-year-old retiree is a reasonable beginning withdrawal rate. If you start retirement with a rate close to 6%, you should plan on limiting annual increases in your withdrawals. If you are able to start with a withdrawal rate closer to 3%, you will be able to increase it more safely with inflation over the years.

Most importantly, and one reason we highlight Zolt's work, is that your ability to adjust can have a profound effect on how well your investments can support you in retirement. Knowing what your withdrawal rate is and being in a position to reduce your withdrawals in the face of a market downturn are crucial.

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