

# Spending

The goal for investors supporting retirement living through portfolio withdrawals is to achieve a spending rate that neither falls short over time nor results in a constrained quality of life along the way. As all investments contain some type of risk, achieving a specific spending rate is not 100% certain. An 80% probability of success is considered a safe harbor for balancing these outcomes. Expected levels of returns and risks are important determinants of this probability. At this time, it seems appropriate to set returns somewhat below long-term levels while maintaining risks at historical levels. A review of current tradeoffs can provide perspective for spending rates ahead.

## Q PERSPECTIVE

For a given probability of success, annual spending rates are a function of life expectancies and portfolio returns and risks. **Table I** shows an array of spending rates over a range of life expectancies and portfolio equity allocations for an 80% safe-harbor probability of success. Standard mortality rates provide objective measures of life expectancy. A 35-year life expectancy corresponds to the joint mortality of two 55-year olds while a 10-year life expectancy corresponds to that of two 85-year olds. Equity allocation is a proxy for expected portfolio return and risk. While higher return is expected from taking more risk, there are levels of portfolio risk at which the 80% safe-harbor spending rate actually begins to decline.

For a given level of portfolio return and risk, probabilities of success are a function of life expectancies and annual spending rates. **Table II** shows an array of success probabilities over a range of life expectancies and annual spending rates for a 60% portfolio equity allocation. Probability of success indicates the odds of depleting portfolio assets prior to an identified life expectancy. With current return and risk expectations, annual spending rates higher than 5% meet the 80% safe-harbor probability of success only for shorter life expectancies. Taking a higher spending rate with a probability of success below the 80% safe-harbor is a personal choice, but a 50% level is potentially a mere coin-toss with respect to a successful outcome.

For a given life expectancy, probabilities of success are a function of portfolio returns and risks and annual spending rates. **Table III** shows an array of success probabilities over a range of portfolio equity allocations and annual spending rates for a life expectancy of 25 years. This horizon corresponds to the joint-lives mortality for two 65-year olds. For lower annual spending rates, higher probabilities of success can be reached by taking more portfolio risk. At certain allocation levels, however, taking more risk reduces the success probability. For spending rates above 5%, success probabilities increase with higher equity allocations but fail to reach the 80% safe-harbor.

## INVESTMENT IMPLICATIONS

How much can I spend from my portfolio each year? How long will my portfolio last? I want to enjoy my retirement years without running out of money. These are common questions and concerns. Answers can be provided, but they are estimates dependent on key inputs: horizon, returns and risks, risk tolerance. Each input adds a level of uncertainty, but these uncertainties can be managed if not fully controlled. Important to any outcome is the size of the portfolio at the outset and regular portfolio additions over time.

**TABLE I**

ANNUAL SPENDING RATES (80% Probability of Success)						
LIFE EXPECTANCY (YEARS)	EQUITY ALLOCATION					
	0%	20%	40%	60%	80%	100%
35	3.0%	3.4%	3.6%	3.6%	3.5%	3.3%
30	3.2%	3.6%	3.8%	3.9%	3.8%	3.6%
25	3.6%	4.0%	4.2%	4.2%	4.1%	3.9%
20	4.1%	4.5%	4.7%	4.8%	4.7%	4.5%
15	5.0%	5.4%	5.6%	5.6%	5.6%	5.4%
10	6.7%	7.1%	7.3%	7.4%	7.3%	7.1%

**TABLE II**

PROBABILITY OF SUCCESS (60% Equity Allocation)						
LIFE EXPECTANCY (YEARS)	ANNUAL SPENDING RATE					
	3%	4%	5%	6%	7%	8%
35	88%	75%	61%	47%	35%	25%
30	90%	79%	66%	52%	40%	30%
25	92%	82%	71%	59%	48%	38%
20	94%	87%	78%	68%	57%	48%
15	96%	91%	85%	77%	69%	60%
10	98%	96%	92%	88%	82%	77%

**TABLE III**

PROBABILITY OF SUCCESS (25-Year Life Expectancy)						
EQUITY ALLOCATION	ANNUAL SPENDING RATE					
	3%	4%	5%	6%	7%	8%
100%	88%	79%	69%	59%	49%	41%
80%	90%	81%	71%	60%	49%	40%
60%	92%	82%	71%	59%	48%	38%
40%	92%	82%	70%	57%	45%	34%
20%	91%	80%	66%	52%	40%	29%
0%	87%	74%	59%	45%	33%	23%