Retirement Drawdown Simulation

Evaluating the 4% Rule in an Era of Lower Projected Investment Returns

Withdrawal Rate

Years In Retirement	2.0%	2.5%	3.0%	3.5%	4.0%	4.5%	5.0%
20	1.61x	1.36x	1.13x	0.89x	0.67x	0.43x	0.17x
25	1.78x	1.44x	1.11x	0.73x	0.40x	0.07x	-
30	2.07x	1.49x	1.01x	0.50x	0.03x	-	-
35	2.38x	1.54x	0.90x	0.19x	-	-	-
40	2.67x	1.59x	0.68x	-	-	-	-
45	3.04x	1.60x	0.37x	-	-	-	-
50	3.43x	1.54x	-	-	-	-	-

Remaining portfolio balance as a fraction of starting amount.

On average, at a 3.0% annual withdrawal rate, 90% of the beginning portfolio remains after 35 years. For example, with a retirement portfolio of $1,000,000 and a withdrawal rate of 3.0% per year, an investor could spend approximately $30,000 annually, or $2,500 per month, adjusted over time for inflation, to supplement other retirement income sources (e.g., Social Security). After 35 years, the portfolio has a median remaining balance equal to about 90% of the starting amount, or approximately $900,000.

Assumptions

10,000 trial Monte Carlo simulation at each withdrawal rate | 70/30 stock/bond allocation with monthly compounding | Fat-tailed levy process for sampling equity performance

Fraction shown corresponds with median simulation result | Analysis uses default forward-looking capital market expectations programmed into the Honest Math portfolio simulator

Assumes 75% of the portfolio is subject to income taxes upon withdrawal at an effective rate of 20%