

## Spreadsheet Tracks Year-by-Year Portfolio Value

You must make three key decisions for your retirement financial plan: 1) Spending Rate and therefore the Constant Dollar Amount for Spending; 2) Mix of Stocks and Bonds (chart shows mix for stocks; the balance is bonds); 3) Investing Cost, which is the assumed net reduction from market returns incurred when we invest.

This table excludes the effect of using an off-the-top Reserve, approximately one year of spending. In a year of very poor returns, you'd tap the Reserve for spending: in effect, you skip a year of withdrawal from your Investment Portfolio.

Start Year	Beg Bal of Portfolio	W/D for	Start of Year	Mix	Return \$	End Year Bal B4 Invest Cost	Investing Cost	End B4 next W/D	
		Spending just prior to Jan 1 <b>4.40%</b>		Stock/Bond <b>85%</b>					Real Return Rate in Yr.
1	1969	1,000.0	44	956.0	-13.29%	(127.0)	829.0	1.5	827.5
2	1970	827.5	44	783.5	-0.38%	(3.0)	780.5	1.4	779.1
3	1971	779.1	44	735.1	10.43%	76.7	811.8	1.5	810.4
4	1972	810.4	44	766.4	13.14%	100.7	867.1	1.6	865.5
5	1973	865.5	44	821.5	-19.72%	(162.0)	659.5	1.2	658.4
6	1974	658.4	44	614.4	-30.34%	(186.4)	428.0	0.8	427.2
7	1975	427.2	44	383.2	24.30%	93.1	476.3	0.9	475.5
8	1976	475.5	44	431.5	17.21%	74.3	505.7	0.9	504.8
9	1977	504.8	44	460.8	-12.13%	(55.9)	404.9	0.7	404.2
10	1978	404.2	44	360.2	-3.32%	(11.9)	348.2	0.6	347.6
11	1979	347.6	44	303.6	2.05%	6.2	309.8	0.6	309.3
12	1980	309.3	44	265.3	13.03%	34.6	299.8	0.5	299.3
13	1981	299.3	44	255.3	-11.80%	(30.1)	225.2	0.4	224.8
14	1982	224.8	44	180.8	19.74%	35.7	216.5	0.4	216.1
15	1983	216.1	44	172.1	14.91%	25.6	197.7	0.4	197.4
16	1984	197.4	44	153.4	3.56%	5.5	158.8	0.3	158.5
17	1985	158.5	44	114.5	26.83%	30.7	145.3	0.3	145.0
18	1986	145.0	44	101.0	18.21%	18.4	119.4	0.2	119.2
19	1987	119.2	44	75.2	-0.33%	(0.3)	74.9	0.1	74.8
20	1988	74.8	44	30.8	10.67%	3.3	34.1	0.1	34.0
21	1989	NOT ENUF	44	#VALUE!	23.89%	#VALUE!	#VALUE!	#VALUE!	#VALUE!
22	1990	#VALUE!	44	#VALUE!	-7.37%	#VALUE!	#VALUE!	#VALUE!	#VALUE!
23	1991	#VALUE!	44	#VALUE!	24.96%	#VALUE!	#VALUE!	#VALUE!	#VALUE!
24	1992	#VALUE!	44	#VALUE!	6.26%	#VALUE!	#VALUE!	#VALUE!	#VALUE!
25	1993	#VALUE!	44	#VALUE!	8.32%	#VALUE!	#VALUE!	#VALUE!	#VALUE!
26	1994	#VALUE!	44	#VALUE!	0.40%	#VALUE!	#VALUE!	#VALUE!	#VALUE!
27	1995	#VALUE!	44	#VALUE!	33.31%	#VALUE!	#VALUE!	#VALUE!	#VALUE!
28	1996	#VALUE!	44	#VALUE!	15.54%	#VALUE!	#VALUE!	#VALUE!	#VALUE!
29	1997	#VALUE!	44	#VALUE!	28.55%	#VALUE!	#VALUE!	#VALUE!	#VALUE!
30	1998	#VALUE!	44	#VALUE!	24.25%	#VALUE!	#VALUE!	#VALUE!	#VALUE!

**Could take 20 years of full W/D for spending. Then NOT ENUF.**

The column of real returns comes from data published by Ibbotson, SBBI Yearbook, 2017.

The return data provided is for two classes of stocks, three of bonds, and one for short-term bills.

I used Large Company Stocks and US Gov't Bonds for the calculations here.