Beyond the Target Date

Ron Surz, Ron@TargetDateSolutions.com

What is the "right" glide path for a target date fund beyond the target date? This question is addressed in Dr Wade Pfau and Michael Kitces' Reducing Retirement Risk with a Rising Equity Glide Path, where they compare and contrast increasing equity glide paths to flat glide paths in retirement. Dr Wade Pfau is Professor of Retirement Income at the American College of Financial Services. He writes extensively on retirement savings and investments. Mr. Michael Kitces is a highly regarded financial planner who holds Masters Degrees in Financial Services and Taxation, plus extensive professional designations.

All current TDF glide paths are flat in retirement, except the patented Safe Landing Glide Path® (SLGP) that increases from 10% equity at the target date to 40% over 30 years. Kitces and Pfau (K&P) present several tables that examine the probabilities of success and failure, Success is defined as making your money last 30 years into retirement. Failure is calculated as the 1-in-20 worst case shortfall, measured in "years of spending" so for example a -16% shortfall in a 4% spending analysis means you run out of money 4 years (16 divided by 4) before the end of their 30-year analysis, i.e. in year 26.

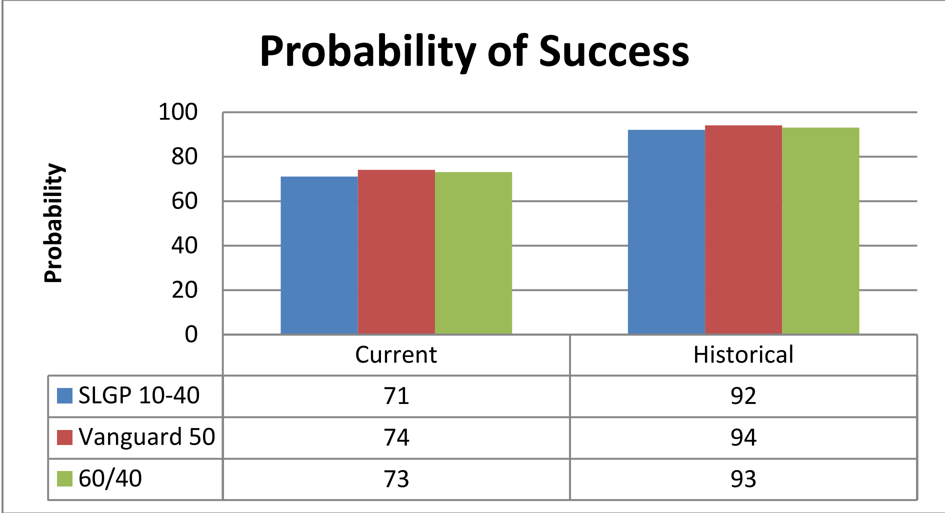
K&P examine two spending rules – 4% and 5% -- and many glide paths. The 4% Withdrawal Rule stems from a 1994 study by financial planner William Bengen. After testing a variety of withdrawal rates using historical rates of return, Bengen found that 4% was the highest rate that held up over a period of at least 30 years. The 4% withdrawal rule spends 4% of savings in the first year, & then that dollar amount increases by inflation in each subsequent year.

K&P find that the 4% Rule is currently not the slam dunk it used to be. K&P estimate the success probability of a 4% Rule to be more than 90% using historical capital market assumptions, but this probability drops to about 75% in today's market environment.

Many pundits have proclaimed the 4% Rule dead, at least for now, because real interest rates are zero. K&P say there's still life in the Rule, but not the vitality there used to be.

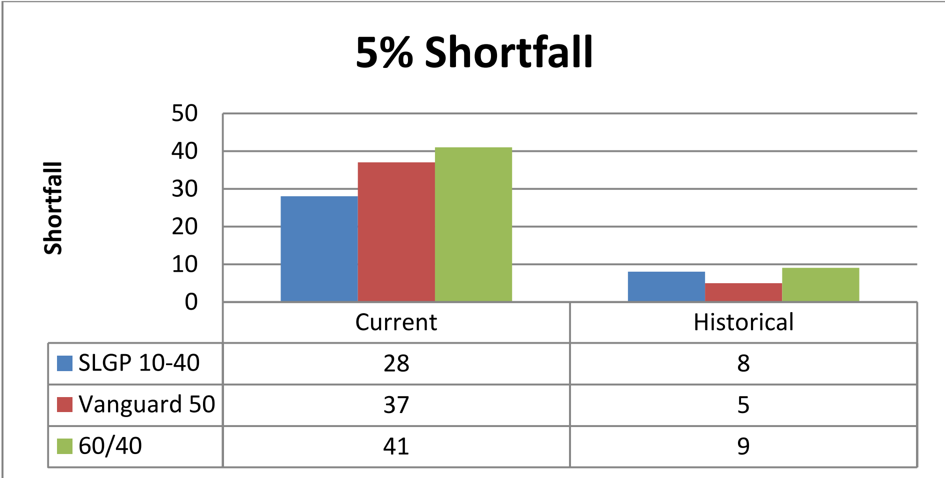
The table below shows the probability of success for 3 different glide paths:

1. The standard 60/40 stock/bond mix that is the basis for the 4% Rule
2. Vanguard's flat 50% equity in retirement TDF glide path
3. SLGP's "Bounce Path:" that increases from 10% to 40% in retirement



As you can see, the probability of having your money last a lifetime is about the same with all 3 paths, albeit substantially lower today than it has been historically. This is not a good time to be retired.

But all is not equal if we focus on worst cases, defined as the bottom 5% shortfall, as you see in the next graph:



Here we see that current market conditions favor the protection of the SLGP glide path.

In summary, the SLGP in retirement has about the same probability of success as flat 50/50 and 60/40 mixes, but substantially less shortfall risk in today's market conditions. K&P conclude: ***the results reveal that rising glidepaths are even more effective, especially when they start off conservatively. The most favorable (i.e., least adverse) shortfall actually occurs with a glidepath that starts at only 10% in equities and rises to "only" 50% in equities***. [Sequence of Return risk](#) is highest as we enter retirement and the SLGP is designed to protect against this very harmful risk.

Tables 6 and 2 from Kitces & Pfau's [Reducing Retirement Risk with a Rising Equity Glide path](#)

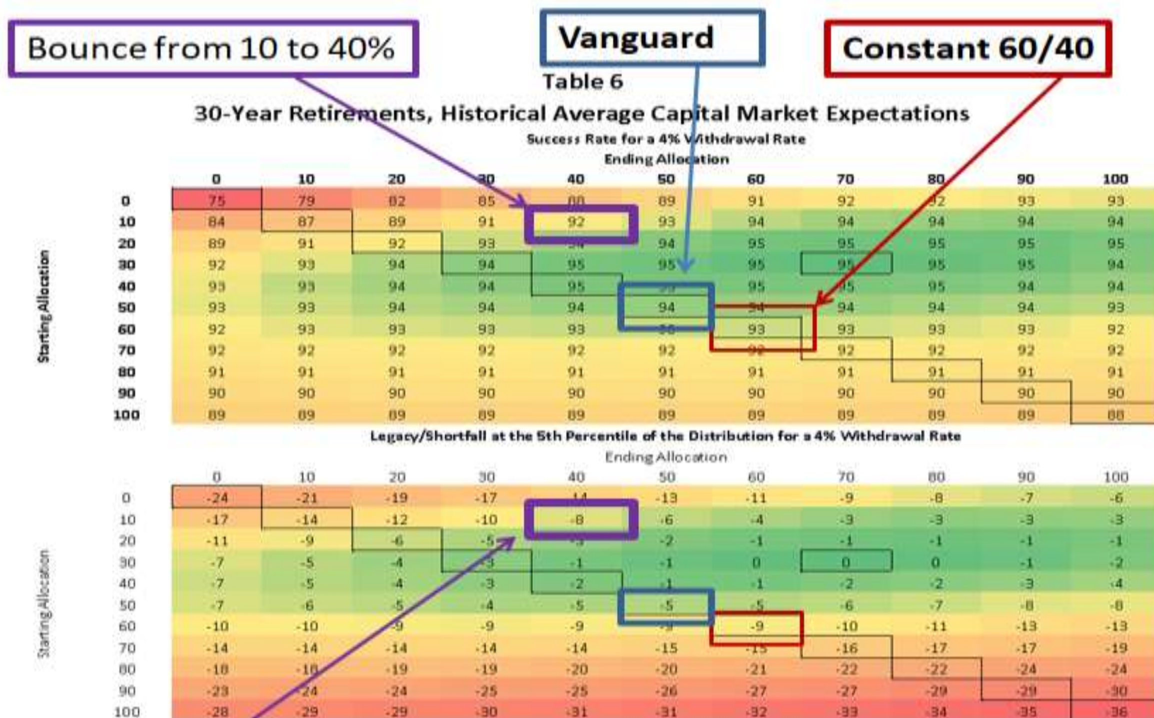


Table 6

30-Year Retirements, Historical Average Capital Market Expectations

Success Rate for a 4% Withdrawal Rate

Starting Allocation \ Ending Allocation	0	10	20	30	40	50	60	70	80	90	100
0	75	79	82	85	88	89	91	92	92	93	93
10	84	87	89	91	92	93	94	94	94	94	94
20	89	91	92	93	[illegible]	94	95	95	95	95	95
30	92	93	94	94	95	95	95	95	95	95	94
40	93	93	94	94	95	[illegible]	95	95	95	94	94
50	93	93	94	94	94	94	94	94	94	94	93
60	92	93	93	93	93	[illegible]	93	93	93	93	92
70	92	92	92	92	92	92	92	92	92	92	92
80	91	91	91	91	91	91	91	91	91	91	91
90	90	90	90	90	90	90	90	90	90	90	90
100	89	89	89	89	89	89	89	89	89	89	88

Legacy/Shortfall at the 5th Percentile of the Distribution for a 4% Withdrawal Rate

Starting Allocation \ Ending Allocation	0	10	20	30	40	50	60	70	80	90	100
0	-24	-21	-19	-17	-14	-13	-11	-9	-8	-7	-6
10	-17	-14	-12	-10	-8	-6	-4	-3	-3	-3	-3
20	-11	-9	-6	-5	[illegible]	-2	-1	-1	-1	-1	-1
30	-7	-5	-4	-3	-1	-1	0	0	0	-1	-2
40	-7	-5	-4	-3	-2	-1	-1	-2	-2	-3	-4
50	-7	-6	-5	-4	-5	-5	-5	-6	-7	-8	-8
60	-10	-10	-9	-9	-9	[illegible]	-9	-10	-11	-13	-13
70	-14	-14	-14	-14	-14	-15	-15	-16	-17	-17	-19
80	-18	-18	-19	-19	-20	-20	-21	-22	-22	-24	-24
90	-23	-24	-24	-25	-25	-26	-27	-27	-29	-29	-30
100	-28	-29	-29	-30	-31	-31	-32	-33	-34	-35	-36

Shortfall of -8% means you run out of money 2 years (8/4) before the end of the 30-year analysis

Table 2
30-Year Retirements, Harold Evensky's Capital Market Expectations

Success Rate for a 4% Withdrawal Rate

Starting Allocation (rows) / Ending Allocation (columns)

	0	10	20	30	40	50	60	70	80	90	100
0	55	59	62	64	[illegible]	68	70	70	71	71	71
10	62	65	67	69	71	72	72	73	73	73	73
20	67	69	71	72	[illegible]	74	74	74	74	74	74
30	70	72	73	73	74	74	74	74	74	74	74
40	72	73	73	74	74	74	74	74	74	74	73
50	72	73	73	73	74	74	73	73	73	73	73
60	72	72	73	73	73	73	73	72	72	72	71
70	71	72	72	72	72	72	72	71	71	71	70
80	71	71	71	71	71	71	71	70	70	70	69
90	70	70	70	70	70	70	69	69	69	68	68
100	69	69	69	69	69	68	68	68	67	67	66

Legacy/Shortfall at the 5th Percentile of the Distribution for a 4% Withdrawal Rate

Starting Allocation (rows) / Ending Allocation (columns)

	0	10	20	30	40	50	60	70	80	90	100
0	-32	-31	-30	-29	-29	-29	-28	-28	-28	-28	-29
10	-29	-29	-28	-28	-28	-28	-28	-28	-28	-29	-30
20	-29	-28	-28	-28	[illegible]	-29	-29	-29	-30	-30	-31
30	-29	-29	-30	-30	-30	-31	-31	-32	-32	-33	-34
40	-32	-32	-32	-32	-33	[illegible]	-34	-34	-35	-36	-37
50	-34	-35	-35	-36	-36	-37	-37	-38	-39	-39	-40
60	-38	-38	-39	-39	-40	[illegible]	-41	-42	-43	-43	-44
70	-42	-42	-42	-43	-44	-44	-45	-45	-46	-47	-47
80	-45	-46	-46	-47	-48	-48	-49	-49	-50	-50	-51
90	-49	-50	-50	-51	-51	-52	-52	-53	-53	-54	-55
100	-53	-54	-54	-55	-55	-56	-56	-57	-57	-58	-58