



How to Juggle Risk vs Reward in Retirement

Abstract

Retirement may be looming on the horizon.
Or perhaps you are already retired.
But how do you juggle the investment risks and the rewards?

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“I want to stay as close to the edge as I can without going over. Out on the edge, you see all kinds of things you can’t see from the center.”

Kurt Vonnegut

“If you take risks and face your fate with dignity, there is nothing you can do that makes you small; if you don’t take risks, there is nothing you can do that makes you grand, nothing.”

Nassim Nicholas Taleb

“If you are not willing to risk the unusual, you will have to settle for the ordinary.”

Jim Rohn



Risk and Reward go Hand in Hand

Low risk produces low reward.

Sometimes, high risk produces high reward.

But high reward can never be produced by low risk.



Understanding Risk

There are many types of risks. There is even a risk that this white paper will never be finished by the author. There is the constant risk of plane crashes, car crashes, disease, pandemic, injury, etc.

When it comes to your retirement you are facing one of the most important risks of your lifetime.

Most people feel that while they are working, they are just plowing savings into their 401k or 403b or other retirement plan, and they aren't thinking about it too much. They are doing all they can do. Nothing much to see here.

However, the preparation you put into your retirement will have a great impact on the value you get out of your retirement.

1) So, the first risk to face, is the risk of under-preparing.

When it comes to retirement preparations, people tend to have a lot of questions. How much should I save? When should I start? Should I pay down debt or throw more money into my retirement account?

To calculate a secure amount of retirement savings, you have to come to grips with what you currently are spending. Your retirement spending will be approximately 80% of your current pre-retirement spending. So, if you are spending \$100k/year (after savings and after taxes, which implies that your gross income is approximately \$140k/year), then your probable retirement spending will be \$80k/year. Next, you must consider how much income you will have in retirement. Some people will have a pension as income. Most people will have social security payments as income. Some people will have other sources of income. The easiest answer is that if your retirement income exceeds your retirement spending then you don't really even need your savings. But for most people, their retirement income is less than their retirement

spending, and therefore, they will need to take annual withdrawals from their savings nest egg. Then we calculate how big the nest egg should be to support your retirement spending.

The other common questions are kind-of “academic”. Should I save more now? Start now? Save later? Pay down debt or save? None of that matters. It’s just a side show. The bottom line is this: Will you have enough saved when it’s time to retire to support the withdrawals you will need to make from your nest egg, which will supplement your retirement income, so you can spend comfortably? If the answer is currently “no”, then you better start saving soon, saving more, and do it now. That could imply you need to make some uncomfortable changes to your currently lifestyle.

- 2) The second risk in preparing for retirement is over-preparing. Ok, that’s not really a risk. How can you over prepare? But let’s suppose it’s possible. The risk you have borne is simply the opportunity cost of having more fun spending money earlier in life, then having too much money in retirement and not being able to spend it all before you die. In well over 20 years of being a financial advisor, we’ve yet to meet this person. So, we are going to treat the probability of this risk as zero.
- 3) The third risk in preparing for retirement arrives as you approach the decision point.

Should you become very conservative as you approach retirement so that you reduce the risk of losing any money? Or should you plow on through?

The answer lies in your time horizon. In other words, how many more years of life do you want to plan for? Are you planning to pass away at retirement? Or is retirement just a signpost along the road – a very big neon sign, but still, just a sign? For most people, retirement is just a signpost along a road that will likely last until at least their mid-80s (20-30 years after retirement).



So, to answer this particular question correctly, we have to know how much you have saved and how much you intend to spend per year in retirement. If you have saved so much that you can’t outspend your retirement, resulting in almost no scenario where you run out of money before you die, then it’s safe to become very conservative as you approach retirement.

But most people have not saved enough. When they consider what they spend now, and that they are likely to spend approximately 80% of their current spending during their early retirement years, they find there are far too many scenarios where they run out of money long

before 20-30 years have gone by. So most people have to continue to save and invest with a long term consistent level of risk in order to achieve a retirement that is not likely to run out of funds.

A Custom Financial Plan

It is beginning to sound like we need to put together a budget, as we approach retirement, and through retirement, for the next 15-20 years or so. Then, after we complete the budget, we can stress test the budget to see our probability of not running out of money in retirement.

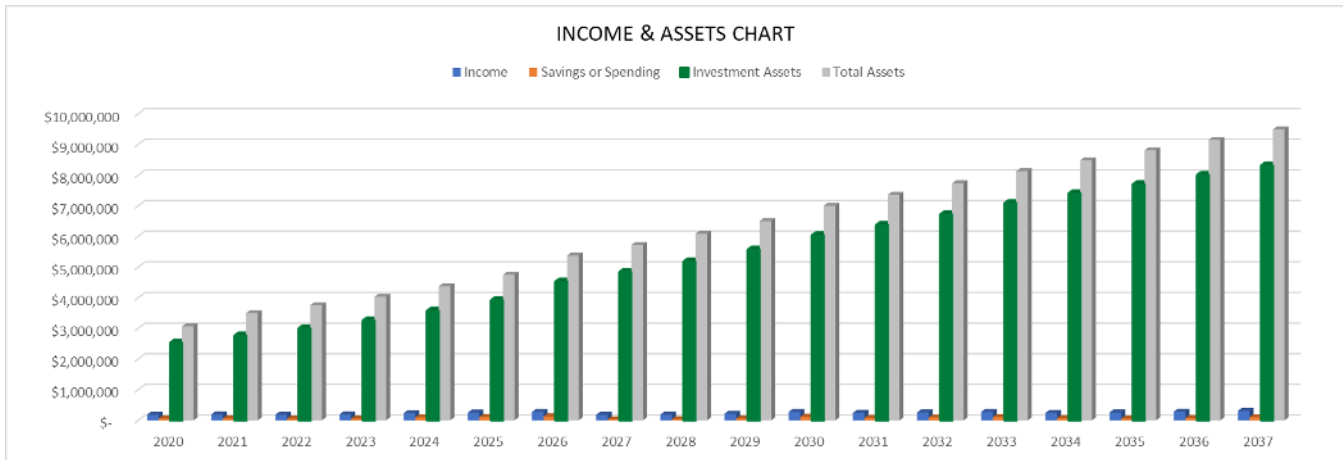
The budget begins with the current year, even if not yet retired, then proceeds through retirement.

INCOME	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Income Bill	\$ 200,000	\$ 206,000	\$ 212,180	\$ 218,545	\$ 321,102	\$ 327,855	\$ 334,810	\$ 120,597	\$ 121,335	\$ 122,095	\$ 122,878	\$ 123,685
Income Mary	\$ 56,000	\$ 57,680	\$ 59,410	\$ 61,193	\$ 63,028	\$ 64,919	\$ 66,867	\$ 78,873	\$ 80,939	\$ 83,067	\$ 85,259	\$ 10,000
Social Security Bill	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 32,659	\$ 33,312	\$ 33,979
Social Security Mary	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 12,596	\$ 12,847
IRA RMD - Bill	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 116,280	\$ 128,206
IRA RMD - Mary	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
IRA BDA - Bill	\$ 4,065	\$ 6,724	\$ 7,583	\$ 8,569	\$ 9,704	\$ 11,015	\$ 22,437	\$ 25,558	\$ 29,201	\$ 33,476	\$ 38,523	\$ 44,524
IRA BDA - Mary	\$ 35	\$ 43	\$ 48	\$ 54	\$ 60	\$ 68	\$ 77	\$ 86	\$ 98	\$ 111	\$ 127	\$ 144
Pensions - Bill	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000
Pensions - Mary	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 15,222	\$ 15,222	\$ 15,222
Current Withdrawal from investments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Income Fr Investment Real Estate	\$ -	\$ (30,600)	\$ (31,212)	\$ (31,836)	\$ (32,473)	\$ (33,122)	\$ (33,785)	\$ (34,461)	\$ (35,150)	\$ (35,853)	\$ (36,570)	\$ (37,301)
Cap Gains, Dividends, Interest	\$ 20,021	\$ 28,481	\$ 31,074	\$ 33,440	\$ 36,076	\$ 40,236	\$ 45,093	\$ 50,808	\$ 53,428	\$ 56,274	\$ 60,053	\$ 66,014
Pre-Tax Income	\$ 280,121	\$ 268,328	\$ 279,083	\$ 289,964	\$ 397,497	\$ 425,971	\$ 460,499	\$ 256,462	\$ 264,852	\$ 322,053	\$ 462,680	\$ 412,319
Retirement Savings - Bill	\$ (24,000)	\$ (24,000)	\$ (24,000)	\$ (24,000)	\$ (24,000)	\$ (24,000)	\$ (24,000)	\$ (24,000)	\$ (24,000)	\$ (24,000)	\$ (24,000)	\$ (24,000)
Retirement Savings - Mary	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Taxable Income	\$ 256,121	\$ 244,328	\$ 255,083	\$ 265,964	\$ 373,497	\$ 401,971	\$ 436,499	\$ 232,462	\$ 240,852	\$ 298,053	\$ 438,680	\$ 388,319
Less Taxes	\$ 71,714	\$ 53,752	\$ 71,423	\$ 74,470	\$ 138,194	\$ 148,729	\$ 161,504	\$ 51,142	\$ 52,987	\$ 83,455	\$ 162,312	\$ 143,678
After Tax Savings/Income	\$ 184,407	\$ 190,576	\$ 183,660	\$ 191,494	\$ 235,303	\$ 253,241	\$ 274,994	\$ 181,320	\$ 187,864	\$ 214,598	\$ 276,368	\$ 244,641
Sale (After Tax) of 2nd Home	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
NET INCOME	\$ 184,407	\$ 190,576	\$ 183,660	\$ 191,494	\$ 235,303	\$ 253,241	\$ 274,994	\$ 181,320	\$ 187,864	\$ 214,598	\$ 276,368	\$ 244,641
EXPENSES												
Vacations	\$ 12,000	\$ 12,360	\$ 12,731	\$ 13,113	\$ 13,506	\$ 13,911	\$ 14,329	\$ 14,758	\$ 15,201	\$ 15,657	\$ 16,127	\$ 16,611
Mortgages	\$ 60,000	\$ 72,500	\$ 72,500	\$ 72,500	\$ 72,500	\$ 72,500	\$ 72,500	\$ 72,500	\$ 72,500	\$ 72,500	\$ 72,500	\$ 72,500
Property Taxes	\$ 6,033	\$ 12,214	\$ 12,580	\$ 12,958	\$ 13,347	\$ 13,747	\$ 14,159	\$ 14,584	\$ 15,022	\$ 15,472	\$ 15,936	\$ 16,415
Living Expenses (based on pre-retirement \$150k/yr less Vaca less Prop Tax)	\$ 71,967	\$ 55,926	\$ 58,249	\$ 60,611	\$ 63,012	\$ 65,454	\$ 127,936	\$ 130,460	\$ 133,026	\$ 135,634	\$ 138,286	\$ 140,981
Other Living Exp (college, car, home imprv, Healthcare, etc)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Sub-total Expenses	\$ 150,000	\$ 153,000	\$ 156,060	\$ 159,181	\$ 162,365	\$ 165,612	\$ 168,924	\$ 172,303	\$ 175,749	\$ 179,264	\$ 182,849	\$ 186,506
Net Savings or Spending	\$ 34,407	\$ 37,576	\$ 27,600	\$ 32,313	\$ 72,939	\$ 87,629	\$ 106,070	\$ 9,017	\$ 12,115	\$ 35,334	\$ 93,519	\$ 58,135
Retirement Savings/Spending - Bill	\$ 24,000	\$ 24,000	\$ 24,000	\$ 24,000	\$ 24,000	\$ 24,000	\$ 24,000	\$ 24,000	\$ 24,000	\$ 24,000	\$ 24,000	\$ 24,000
Retirement Savings/Spending - Mary	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL SAVINGS OR SPENDING	\$ 58,407	\$ 61,576	\$ 51,600	\$ 56,313	\$ 96,939	\$ 111,629	\$ 130,070	\$ 33,017	\$ 36,115	\$ 59,334	\$ 117,519	\$ 82,135
Taxable Assets	\$ 890,034	\$ 971,059	\$ 1,044,992	\$ 1,127,375	\$ 1,257,377	\$ 1,409,151	\$ 1,587,739	\$ 1,669,624	\$ 1,758,576	\$ 1,876,647	\$ 2,062,922	\$ 2,219,448
Tax-Deferred Assets - Bill	\$ 711,360	\$ 768,269	\$ 829,730	\$ 896,109	\$ 967,797	\$ 1,045,221	\$ 2,497,234	\$ 2,697,013	\$ 2,912,774	\$ 3,145,796	\$ 3,397,459	\$ 3,543,674
Tax-Deferred Assets - Mary	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 254,147	\$ 274,479
IRA BDA Assets - Bill	\$ 104,000	\$ 107,930	\$ 109,302	\$ 109,856	\$ 109,390	\$ 107,661	\$ 312,378	\$ 313,137	\$ 310,585	\$ 303,895	\$ 292,053	\$ 273,812
IRA BDA Assets - Mary	\$ 1,050	\$ 1,096	\$ 1,138	\$ 1,177	\$ 1,214	\$ 1,246	\$ 1,272	\$ 1,291	\$ 1,301	\$ 1,299	\$ 1,283	\$ 1,249
Company Retirement Plans (ex 401, Simp)	\$ 818,121	\$ 909,491	\$ 1,008,170	\$ 1,114,744	\$ 1,229,843	\$ 1,354,150	\$ 1,500,007	\$ 1,655,528	\$ 1,823,890	\$ 2,008,321	\$ 2,208,019	\$ 2,419,905
TOTAL MARKET ASSETS	\$ 2,524,566	\$ 2,757,845	\$ 2,993,333	\$ 3,249,261	\$ 3,565,621	\$ 3,917,430	\$ 4,518,630	\$ 4,836,593	\$ 5,177,126	\$ 5,562,958	\$ 6,033,785	\$ 6,366,575
Spending as % of Market Assets	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Primary Home Net Equity	\$ 542,000	\$ 558,260	\$ 575,008	\$ 592,258	\$ 610,026	\$ 628,327	\$ 647,176	\$ 666,592	\$ 686,589	\$ 707,187	\$ 728,403	\$ 750,255
Investment RE Net Equity	\$ -	\$ 180,000	\$ 185,400	\$ 190,962	\$ 196,691	\$ 202,592	\$ 208,669	\$ 214,929	\$ 221,377	\$ 228,019	\$ 234,859	\$ 241,905
TOTAL ASSETS	\$ 3,066,566	\$ 3,496,105	\$ 3,753,740	\$ 4,032,481	\$ 4,372,338	\$ 4,748,348	\$ 5,374,476	\$ 5,718,114	\$ 6,085,093	\$ 6,498,164	\$ 6,997,047	\$ 7,358,735

You can see how Bill's income drops dramatically in year 2027 above. That's because Bill retires in 2027, but Mary retires in 2031. Bill & Mary are spending about \$150k/year and plan to continue to spend that much in retirement. They start out year 2020 with a total of about \$2.2m in total assets including 401ks, IRAs, and brokerage accounts.

The budget is a great tool and creates the “expected” path through time. Our program can run the budget out as far as necessary into the future.

More important, and easier to see, is the graph of all those budgetary numbers as shown below:



Again, the graph shows the “expected” path of Bill & Mary’s finances through time. The important thing about the graph is that it is sloping upwards, which indicates that their assets are building, not running out.

But now, we need to stress test the “expected” path of Bill & Mary’s finances. Because, honestly, while the stock market generates on “average” about 10%/year return, we all know that the actual returns are lumpy, 5% one year, -10% the next, +15% the next, etc. What if there is a serious downturn, recession or even depression? Will Bill & Mary still make it through retirement without running out of money?

We utilize a statistical tool called the monte carlo analysis to run the path through time, over and over. In fact, we can run their numbers, hundreds, even thousands of times to see the probability that Bill & Mary have enough money and won’t run out in retirement.

After running Bill & Mary’s numbers, thousands of times, we came up with 3 major scenarios, each with a sub-scenario as follows:

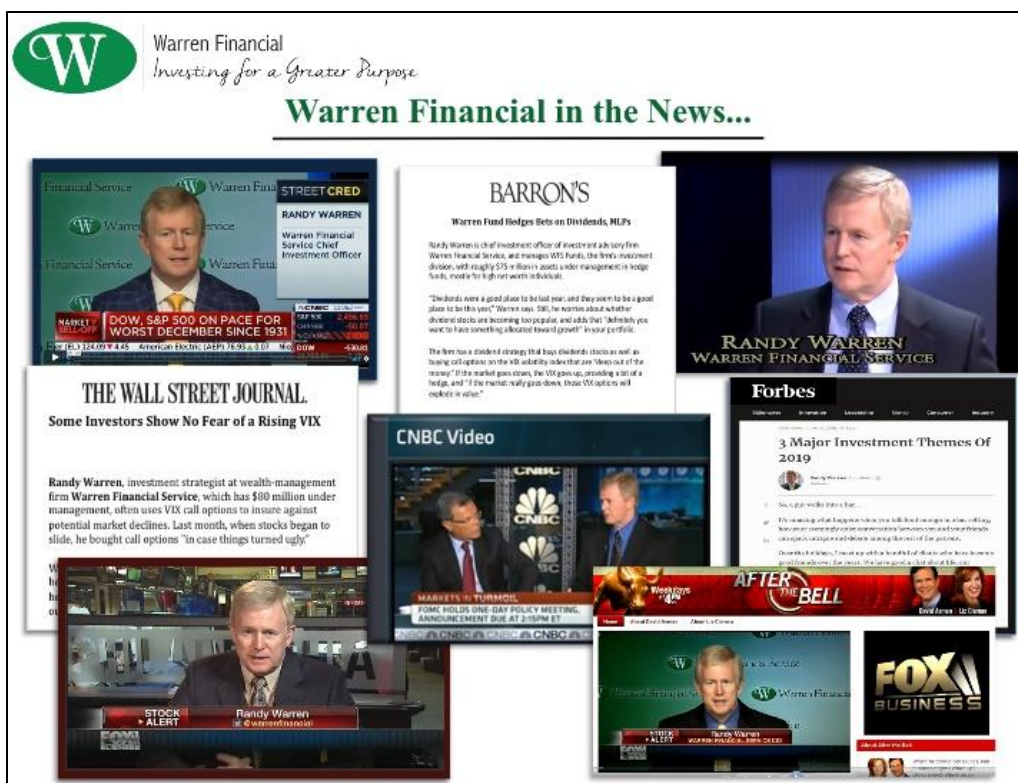
STATISTICAL SCENARIOS				
Scenario	Additional Assumptions	Failure Rate%	%Annual Return	\$Avg ending assets
1	Asset alloc: 80/20% \$170k	26.1%	8.9%	\$8.5m
	WF Effect Off			
1-A	Asset alloc: 80/20% \$170k	8.4%	11.1%	\$15.1m
	WF Effect On			
2	Asset alloc: 80/20% \$150k	17.2%	9.0%	\$9.5m
	WF Effect Off			
2-A	Asset alloc: 80/20% \$150k	4.5%	11.2%	\$16.9m
	WF Effect On			
3	Asset alloc: 80/20% \$140k	8.5%	9.2%	\$10.4m
	WF Effect Off			
3-A	Asset alloc: 80/20% \$140k	2.3%	11.1%	\$18.4m
	WF Effect On			

The optimal scenario is 2-A where there is spending of \$150k, yet the failure rate is only 4.5% meaning there is better than a 95% probability of success for Bill & Mary. The only difference between scenario 2 and scenario 2-A is that scenario 2-A has the Warren Financial effect turned “on”. The idea here is that if Warren Financial is managing your money, we can do at least as well in the future as we have done in the past – more specifically, we can limit losses to about -20% no matter how bad the market gets, and it may be possible to outperform on the upside by 1% or so. Notice the impact of “active” Warren Financial management on the Failure Rate. With the WF Effect off in scenario 2, the failure rate soars to over 17%, but with the WF Effect On, the failure rate drops below 5%. The net effect on spending is that Bill & Mary can spend \$10k more per year with WF managing their assets, then they would be able to otherwise. We believe the WF effect is a conservative estimate.




What is the best way to get involved?

Talk to your Warren Financial advisor. It takes some time to get to know you, but eventually, we can create the optimal path through retirement and stress test that path thousands of times.

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