

Explanation of Spreadsheet Tool (Excluding Social Security V 2.0) written by Ian McGugan, Business Reporter for the Toronto Globe and Mail

November 2014

Ken Steiner has devised a powerful tool for allowing you to see how much you can safely spend in retirement.

Full disclosure, though: The first time I encountered the tool, I felt baffled and frustrated. The spreadsheet doesn't spend a lot of time explaining its terminology or its results.

Think of it as a Wusthof knife for retirement planning. It's capable of cutting through dense material with a flick of the wrist. It can also gouge your thumb if you don't use it properly.

Having sustained my share of nicks, let me share a few observations that may make your introduction to the tool a bit less onerous than my own. I think you'll wind up agreeing that what Ken has built is powerful, ingenious and highly useful to anyone who is in retirement or close to it.

THE BASIC NOTION

Ken's great contribution is allowing you to see how you should adjust your spending in retirement based upon what actually happens.

This, granted, doesn't sound like such a big deal at first. But it's a large step forward from the popular alternative, which is to rely upon simple, inflexible rules for withdrawing money.

The best known guideline is the 4 per cent rule, which states that someone planning a 30-year retirement should count on spending a steady 4 per cent a year of his or her initial portfolio.

Under this rule, the retiree is allowed to adjust the annual amount for inflation but that's it. No matter if the market plummets or if it soars, the retiree is supposed to stick to 4 per cent of his or her starting portfolio. So if you retire at 65 with a \$1-million portfolio, you take out an inflation-adjusted \$40,000 a year for the remainder of your life.

The 4 per cent guideline is based on what has worked in the past, but it has numerous issues: What happens if you want to plan for more than a 30-year retirement? What happens if you have a medical or family emergency and need to exceed your spending limit for a year or two? What happens if you want to leave a big bequest?

Its biggest single issue, though, is that it forces most people to live on an unnecessarily tight budget. The 4 per cent guideline is all about safety – it's a rule of thumb that was designed to ensure your money will survive even another Great Depression.

However, if you don't happen to encounter a major market disaster in the first decade of your retirement, the rule will often leave you three decades into retirement with more money than you had originally. That's great for your heirs, not so good for you, especially if you've had to live a Spartan, meager existence to stay below the artificial 4 per cent ceiling.

THE FASCINATING LIFE OF SAM

You can see the power of Ken's spreadsheet if you look at how life might progress for Sam, a fictional retiree, who has accumulated a million bucks in savings but doesn't have any other private pensions or annuities.

Sam is 65 and figures he should plan on a 30-year retirement. To make things simple, we'll assume that he's single and doesn't have any other dependents.

To reflect Sam's situation, we put \$1,000,000 in the "Accumulated savings" box. We also stick zeroes in the boxes for "Immediate life annuity" and "Deferred annuity" since Sam doesn't have any of those investments. We write 30 in "Expected payout period" to show Sam's expected 30-year retirement.

For now, let's stick with the spreadsheet's recommended assumptions and use 5 per cent for "Expected Annual Rate of Return on Savings" and 3 per cent for "Expected Annual Rate of Inflation".

Let's also assume that Sam wants his withdrawals to keep pace with inflation. To reflect that, we'll put 3 per cent in the "Annual desired increase in payments" box.

Finally, we'll assume that Sam, true to his solitary nature, doesn't care about leaving any money behind. So we'll enter zero in "Desired amount of savings remaining at death."

Now, with all those numbers entered, we look down at the "Results" section of the spreadsheet to see our payoff.

We find that Sam's "Total spendable amount for the year (excluding social security or other inflation-adjusted income)" is \$43,449.

This means he can safely spend that amount this year, plus what he collects from Social Security (for Canadians like me, that means Canada Pension Plan (CPP) and Old Age Security (OAS)).

Pretty simple, right? In addition to his Social Security (or CPP/OAS), Sam gets to spend \$43,449 from his \$1,000,000 nest egg this year.

This is where you roll your eyes and ask what the big deal is. The 4 per cent rule says Sam could spend \$40,000 from his bankroll; the spreadsheet says Sam can spend \$43,449. Not much of a difference, you sneer.

True enough: The 4 per cent rule is a good approximation of what someone starting out in retirement should spend. But let's play with the spreadsheet a bit.

Let's imagine Sam 10 years from now. He's avoided any major market downturns and has been able to generate just enough returns to offset his withdrawals. So he still has his million bucks but he's 10 years older, which means he only has to plan for 20 more years of retirement instead of 30 years.

To reflect that, change the number in "Expected payout period" to 20 from the original 30.

Notice the big change in Results. According to the “Total spendable amount for the year” box, Sam should now feel free to spend \$59,655 this year. That is a big jump from the (inflation-adjusted) \$40,000 that he would spend if he were sticking to the 4 per cent rule.

The increase reflects the fact that Sam’s money now has to last for a much shorter period. It also shows how bad the 4 per cent rule can be in reflecting your individual financial situation.

Ken’s spreadsheet can reflect a lot more of what is happening in your life than the 4 per cent rule. At the risk of sounding like one of those side show guys touting a kitchen slicer, let me quickly show you a few more of its nifty features:

--Let’s say Sam decides to retire at 55 instead of 65. He now has to count on a 40 year retirement. Change the “Expected payout period” to show 40 and you see that his spending during that first year should fall to \$35,494.

--Let’s say Sam decides to stick to retiring at 65 but is unfortunate enough to hit a major market meltdown right away. His bankroll melts away to \$750,000 over the next five years. You can stick in the new numbers (\$750,000 and a remaining payout period of only 25 years) and find that his spending from his bankroll should shrink to \$37,426.

--Let’s say Sam gets lucky and retires at 65 into a raging bull market. Five years later, his portfolio, despite the annual withdrawals, has grown to \$1.5-million. Write in the new numbers (\$1.5-million and a remaining retirement period of only 25 years) and you find that Sam can now look forward to spending \$74,853 this year.

--Let’s say Sam meets his ideal woman at his retirement party. They move in together immediately and Sam wants to make sure she will be well looked after. His new priority is to leave her at least \$250,000 when he dies. To reflect this, enter that amount in the box entitled “Desired amount of savings remaining at death.” Everything else being equal (i.e. million-dollar portfolio, retirement at 65, etc.), Sam now finds he has to trim his spending from his bankroll during that first year to only \$40,936.

SO IS THIS PERFECT?

Well, okay, the spreadsheet is great, but it’s not an all-powerful tool for planning your retirement.

It leaves out taxes, for instance. Those are simply too individual to accommodate within a simple spreadsheet. Especially if you have a complicated tax situation, talk to a professional to make sure your planned spending plan doesn’t result in an unnecessarily large tax hit.

It also leaves out minimum withdrawals from retirement accounts. Especially in Canada, those can be a major issue once you pass 71.

The spreadsheet also poses challenges for people who are holding much of their wealth in real estate and plan to sell it years from now. Given the unpredictability of real estate prices, it’s difficult to come up with an expected rate of return on real estate holdings. You may want to consider these investments separately.

But all of those issues being noted, I still think Ken’s spreadsheet is a powerful tool for planning your retirement. It allows you to plan your spending, year by year, during retirement, using real numbers, rather than settling for a one-size-fits-all rule of thumb.

SOME COMMON POINTS OF CONFUSION

If you have a typical corporate pension – one that doesn't offer any protection against inflation – that pension is equivalent to an annuity and should be entered in the box entitled "Immediate life annuity."

If you have a pension that goes up automatically in line with inflation (probably because you worked for the government), don't enter it on the spreadsheet. Simply add that amount to what you can spend each year. Ditto if you have one of those rare inflation-protected annuities. The spreadsheet is designed to reflect the uncertain payouts from non-inflation-protected investments, rather than the certain payouts from inflation-protected ones.

Deferred annuities are just beginning to be widely offered in the United States and are very rare in Canada. If (like most people) you don't have one, simply enter zero in the boxes that refer to deferred annuities.

The "Expected annual rate of return on savings" is a nominal figure, not a real one. In other words, it includes inflation. So Ken's recommendations for a 5 per cent return assumption and a 3 per cent inflation rate amounts to saying that you can expect a 2 per cent rate of return in real, or inflation-adjusted, terms.

Some people seem to find a 5 per cent assumption for returns to be overly conservative. You are, of course, free to change this number, but I'd urge caution. Better to underestimate how much you will make and be pleasantly surprised than the alternative.

Inflation is similar. Given today's economy, you may want to push your expected inflation rate down to 2 per cent. But if you do so, I would suggest that you also push your expected return down to 4 per cent, so you are still counting on the same 2 per cent real return as in Ken's original recommendations.

HOW TO USE THE SPREADSHEET

The whole point of the spreadsheet is to allow you to adjust your spending, year by year, to reflect real results. So don't just use it once; run it once a year to see how you're doing.

Take a moment and examine both of the spreadsheets that accompany the main page. (You access them by clicking the "Runout" and "Inflation-adjusted runout" tabs at the bottom of the main page.) These show how your capital is likely to run down over the years. One shows the likely rundown in nominal terms; the other adjusts for the impact of inflation. Looking at both can give you a sense of what to expect over the coming years.

Remember, though, that real returns are going to be far lumpier than the smooth path displayed on a spreadsheet. For that reason, you may not want to adjust your spending quite as much as the spreadsheet would suggest after a particularly strong or weak patch in the market. For more on that, I would suggest reading Ken's post from Oct. 30 on smoothing your withdrawals.