

Understanding the rate and direction of retirement spending

Aaron Minney | Challenger | 30 October 2017

The first question a client often asks their adviser around retirement is "When can I afford to retire?"

This reflects the focus on their savings balance in the accumulation phase. With more thought, retirees want to know that the cash flows they can generate will support their desired lifestyle in retirement.

Having built some satisfaction that their balance is sufficient, the common question changes to "How much can I afford to spend?"

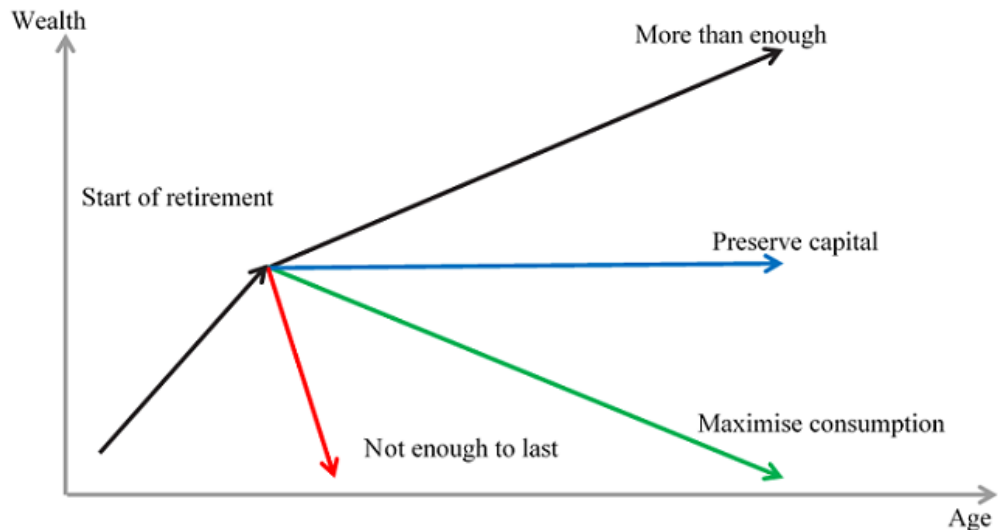
There is a very strong "It depends" element to answering this question. To understand the appropriate rate of spending, it is necessary to form a view about the likely impact on the retiree's capital. To bring this issue to life, consider spending as having a direction – spend too much and your savings will go "South".

HEADING IN THE RIGHT DIRECTION

Most models or rules of thumb on retirement spending don't address the end-point. At best, an assumption is made that the capital is exhausted at a time when the client will no longer need it. However, that is unlikely to produce the best result.

Accumulating assets to the point of retirement is a goal that will be consistent across most people. In practice, there is a range of different paths that can be taken after retirement. Four of these directions are illustrated in Figure 1 below and provide a good summary of what might happen.

Figure 1: The direction of consumption in retirement



At either extreme, there are those with more than enough wealth that, despite typically higher consumption, their wealth continues to grow – and those who don't have enough to last will run out early in retirement. In between, there are the two options of trying to preserve the value of initial wealth to pass on a legacy, and a path that maximises consumption but leaves little or nothing for the next generation.

In practice, most retirees will head down a middle path, aiming to not run out of capital and not necessarily spend it all. These two paths are quite interesting and the mathematics is discussed in a recent Journal of Retirement article.¹ The two key results are:

1. A spending rate that is equal to the geometric mean ($\mu - (\sigma^2/2)$) of an investment portfolio's return is expected to preserve the capital of the portfolio; and,
2. A spending rate calculated as an annuity factor, while using the same geometric mean as the assumed return and the appropriate life table, is expected to exhaust capital at the end of life.

A PREFERENCE TO SPEND ON THEMSELVES

A key determinant in retiree spending rates is whether or not they intend to leave some capital for their children to spend or whether they aim to spend it on themselves. A recent survey by National Seniors Australia highlights an increasing intention among seniors to spend it on themselves.²

The problem is that most retirees don't have a good idea of how much they can spend. The result is the frugality that we see with current retirees. They cut back their spending, worried that they will run out of money. Even retirees with modest assets on the Age Pension have

been seen to save, rather than spend.³ The result is that retirees don't spend all their money and leave some in their estate for the next generation. The evidence suggests that it is not an intentional bequest, but unused precautionary savings that the retiree kept "just in case" they needed it.

Intentional or not, many retirees are likely to end up moving in the direction between the green and blue lines in Figure 1. In this case, the most useful numbers for a retiree are the two different consumption levels along the alternative paths. A case study is useful here to highlight the difference in consumption levels between the two paths.

HOW MUCH MORE CAN RETIREES SPEND EACH YEAR?

Consider John and Jane, two 65-year-old Australians just at the point of retirement. They have:

- \$500,000 in retirement savings, all in superannuation
- Investments in a balanced profile, expected return $\mu = 7\%$ per annum and volatility $\sigma = 10\%$ per annum
- Assume Australian Age Pension conditions as at 1 October 2017, and they have \$40,000 in personal effects for means test purposes
- Inflation is expected to be 2.5% per annum
- Spending is assumed to fall by one-third when the first of John and Jane passes away.

Initially, John and Jane will be eligible for around \$21,000 a year as a part Age Pension. How much they spend beyond that will determine the path they take. The real geometric mean return on the portfolio is 4.0% per annum ($0.07 - (0.10)^2 = .025$). Thus, if they spend a total of only \$41,000 a year, they can expect to preserve the real value of their \$500,000 savings.

Alternatively, by spending \$57,000 a year, they would expect to be able to enjoy this lifestyle for as long as they lived. The higher spending reduces the couple's capital to the point where the expected value for the next generation would be nothing. In practice, there would be something in the estate if they do not reach life expectancy, and there would be a shortfall if they lived beyond life expectancy.

The key is the \$16,000 a year difference between the two directions. To preserve their savings, John and Jane would need to spend \$16,000 a year less than if they aimed to spend all their money on themselves. This is a significant proportion of their retirement spending and can make a large difference to their standard of living. It is almost enough to move them from the ASFA modest standard to the ASFA comfortable standard in retirement.⁴

One caveat on this is the use of expectations. This is because it makes the mathematics work. In practice, advisers will typically set a strategy with clients that involves a stronger chance of "success" than the average expectation. However, the gap between the spending rate that preserves capital and the rate that consumes capital will remain. A higher level of certainty will be achieved by spending less along each path.

SENDING CLIENTS IN THE RIGHT DIRECTION

Getting spending right in retirement is difficult. Before sending clients down a path in retirement, it's a good idea to get a clear understanding of where they want to end up. If they really want to spend their capital on themselves and not leave it to their children to spend, there is definitely scope to spend more of it on themselves. In the example, John and Jane could spend nearly 40% more each year, depending on the direction they wanted to take.

ENDNOTES

1. Minney, A. (2017) Adding Direction to the Consumption Rate in Retirement. *The Journal of Retirement*, 5(1), pp.106–116. This can be accessed for a limited time [here](#).
2. [Seniors more savvy about retirement income, National Seniors Australia, October 2017](#)
3. Wu, S., A. Asher, R. Meyricke, and S. Thorp, Age Pensioner Profiles: A Longitudinal Study of Income, Assets and Decumulation. ARC Centre of Excellence in Population Ageing Research Working Paper 2015/17.
4. <https://www.superannuation.asn.au/resources/retirement-standard>



[Aaron Minney](#) is Head of Retirement Income Research at [Challenger](#).
