

# EUREKA *report*



## How much is enough?

By Doug Turek  
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**PORTFOLIO POINT: Determining retirement needs is the million-dollar question with an uncertain answer, but there are guidelines.**

Many investors worry how badly their retirement plans have been crunched by this recent crisis. With the ASX down 50% over the last year the question 'How much is enough?' has a fresh relevance.

Some years ago my brother, who was then in his early forties, called me with a personal revelation: "Doug, I have worked out that if I sell everything I own, I have enough money to retire now ... but I have to live in a caravan park."

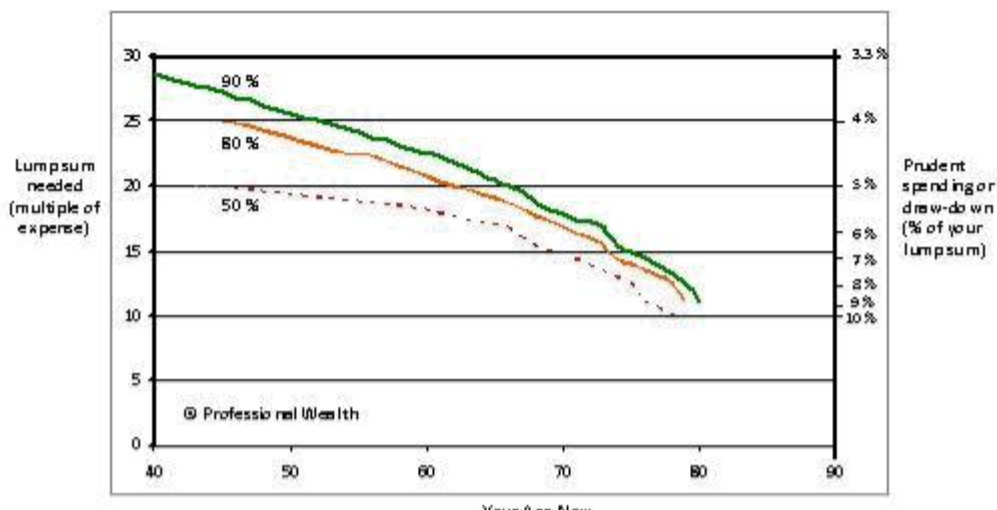
While interested, I wasn't sure of its relevance given his age and being mindful of his now ex-wife's different housing aspirations. And then he added: "So every day I go to work, all I'm doing is improving the quality of my caravan." It clicked with me then that this logic provides an interesting way to talk about retirement preparedness and the tradeoff between working longer and retiring sooner.

How big is your caravan? In other words, just how much can you live off now if you're retired or stop working. Also, if you have a specific lifestyle in mind then you can estimate what amount of capital you will need to set aside.

In an earlier article (see *The trouble with wealth projections*) I showed, using over 100 years of historical Australian share, bond and inflation data, that forecasts for retirement funding are always wrong; most fail to take into account investment and inflation volatility. Not surprisingly therefore, I can't guarantee estimates but I can suggest probable outcomes based on history. Other variables will also impact this including how long you live, your asset allocation, costs you incur, taxes you pay and your success earning a market rate of return.

The chart in Figure 1 should help you connect how many years your money will last with how much you can spend. The three lines shown provide answers depending if you want 90%, 80% or just 50% certainty ... the latter being no better than a coin toss and not what I would ever recommend.

The data for 90% certainty is also summarised in Table 1 in case you find that easier to follow.



**Figure 1:** How much capital you need to fund retirement living from your age now to age 90 with a 90%, 80% or 50% historic certainty, expressed as a multiple of first-year retirement expense (left axis). Also shown is what percentage of capital you can prudently spend in the first (or this) year of retirement (right axis).

Age now or retired	Multiple of expense needed	Prudent spending ratio (%)
40	29	3.5%
45	28	3.6%
50	26	3.8%
55	24	4.2%
60	23	4.4%
65	21	4.8%
70	18	5.5%
75	14	6.9%
80	11	9.0%

**Table 1:** Required retirement capital as a proportion of this or first year's retirement expense and prudent spending ratio to fund retirement to age 90, with a 90% historic probability.

This information can be used a number of ways.

If you want to know how much you need to save to fund a certain life style beginning at a certain age, then multiply the specific expense multiple for your age and probability by this expense. For instance, if you are aged 60 and want to fund an inflation adjusting retirement lifestyle until age 90 of \$100,000, then you need to have saved 23 times this amount or \$2.3 million (for a 90% certainty). If you are age 65, you'll find this requires only 21 times that amount, or \$2.1 million.

Note, if you are 60 now and don't plan to retire until age 65, then you'll still need 21 times expenses at age 65. But do note that \$121,000 might be a better expense estimate for what \$100,000 buys in five years time (assuming 4% inflation). In other words plan to save \$2.5 million.

If you want to know what is a prudent level of expenditure for your age in retirement, then read off from this chart or table the percentage of your capital to spend. For instance, if you are now aged 50, there is a 90% chance based on history that you could live off 3.8% or 1/26th of your current savings balance for the next 40 years without working. If you have set aside \$1 million then this is \$38,000 before increases for inflation each year. That might buy a lot of red wine and surf wax if you choose to give it all up after a bad day at work and move to a caravan by the sea.

You can also use this chart to test how certain it is your money might last based on your current spending rate if you are now in retirement. If, for instance, you are aged 70 and spending an amount equal to about 5% of investments, then this chart suggests there is about a 95% chance you'll be able to weather all financial storms over the next 20 years. If you're spending 7% then your chances may be 50:50 that you'll need to access other assets like your home or have to slow down spending. If you're drawing down 4% then you need to do a better job spending the kids' inheritance and should upgrade to business class on your next overseas flight!

This is based on research into how an annually rebalanced 60% Australian equity/40% Australian 10 year yielding bond portfolio fared funding an inflation-adjusted drawdown for retirements beginning as early as 1885 and ending as late as 2007. If you have more in bonds and cash to help you sleep at night, then you need a bit more money or should spend less. Having more in equities might help but it also introduces more uncertainty because of volatility.

I'm allowing for 1.5% in fees and taxes – you might pay more or less depending on your investment style and how much of your money is inside super. Studies show many actually under perform the market so that these estimates can be overly optimistic. Unfortunately, even over 120 years, past returns still don't predict future performance. If things don't go your way you may be able to remedy this by spending less once you realise you are off course, or simply spend less when you are older.



This time last year most investors would have said these benchmarks were too conservative. After seeing how inflation can arise and markets collapse you probably now understand the great uncertainties with retirement funding. Work done by Jim Otar using US data suggests investors should spend only 4% of capital in the first year of retirement beginning at age 65 (25 times). I'd suggest a more aggressive 4.8% (21 times) could be spent. The difference comes from the greater dividend income of Australian shares and slight overall outperformance, which may or may not continue.

In an earlier article, Scott Francis reasoned you might be able to draw down 5.5% of your capital from age 60 (see *Tap your super, but how much?*). A higher drawdown can be rationalised if you are willing to take on more risk or vary other factors such as asset allocation and tax rate.

For greatest peace of mind, I suggest you do these calculations based on today's depressed (pun intended, sorry) investment balance. This gives you a benchmark if we have a very slow "L" shaped recovery. If you think we will have a more traditional "V" shaped recovery, then you should model what your investments were worth, or will be again after a recovery. For those just on the threshold of retiring, analysis suggests a permanent 20% decline in portfolio value could be about a three or four-year set back.

If you find you don't have enough, postponing retirement or at least working for expenses may be more practical than choosing to spend less. With time your needs for capital decrease, your investments get a chance to grow faster than inflation and you may add to your nest egg through further saving.

Some plan on spending less later in retirement. These benchmarks assume you spend the same amount, inflation adjusted to age 90. If instead you plan on reducing spending by 20% in the second decade of retirement and another 20% in the last decade of retirement (both after adjusting for inflation), then you might be able to draw down nearly 1% more than these benchmarks suggest.

If you receive income support for instance from the age pension or an old-style, defined benefit employer pension, then this calculation can be used to work out how much more on top of those regular income payments you might be able to spend, funded by your personal investments.

You can also use this to test out the competitiveness of lifetime annuities, where available. If an institution will pay you a CPI-adjusted living expense over your lifetime for a cost of 20 times, or 5% if you are under 65, then think twice before thinking you can easily do better, especially if your parents are still alive at age 90. Products that offer guaranteed or protected returns, inflation proofing or longevity protection could play a useful role by limiting your risk, and therefore the amount of capital you need to set aside.

"How much is enough?" is for many the million dollar question which unfortunately has an uncertain answer. Hopefully these historical benchmarks provide some guidance, especially during these unsettling times.



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