

More detailed analysis: Impact on the value of Susan’s assets in nominal and real terms when comparing the low taper rate scenario and high taper rate scenario

By Jim Bonham

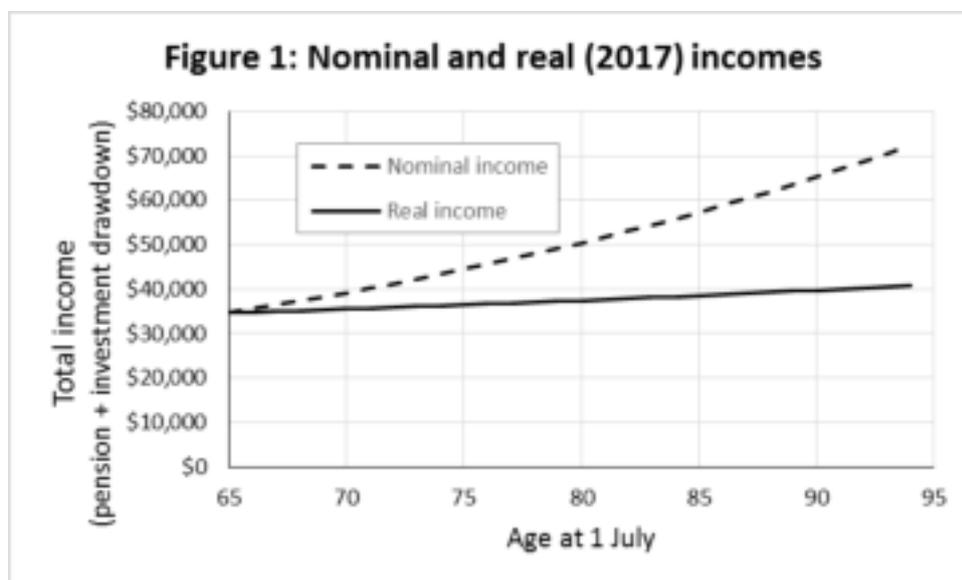
In the graphs to follow, I will show what happens to Susan’s finances in *nominal* dollar terms (i.e. in the dollars of the day) and also in *real* terms (adjusted for inflation so they are given in 2017 dollars).

Nominal dollars make some aspects of Susan’s finances easy to understand, but the real (2017) values show what happens to the buying power of her money: we all know that a dollar today won’t buy anything like what it would buy ten years ago – and we’re going to look up to 30 years into Susan’s future, so inflation matters.

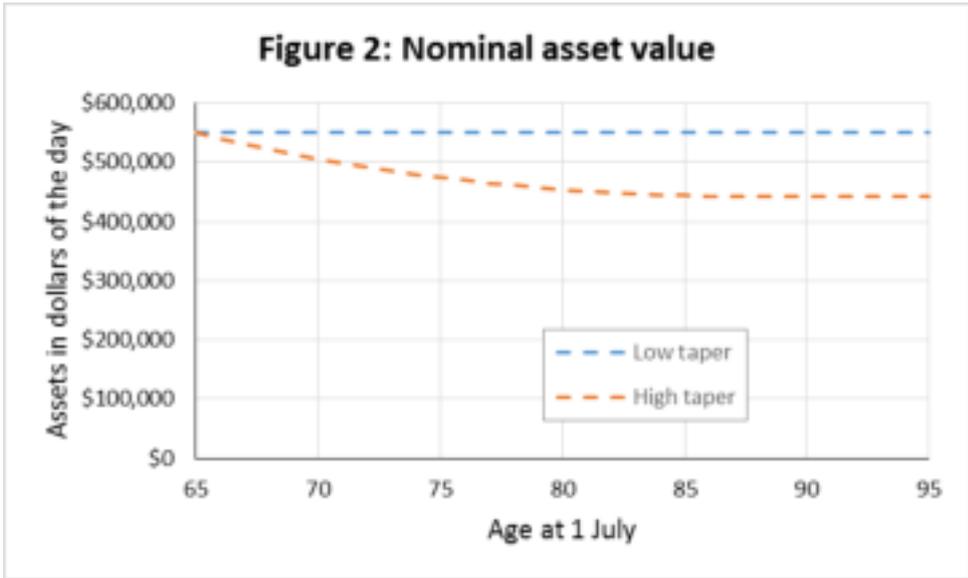
What happens to asset value?

In the *low taper* case, Susan’s real income (in 2017 dollars) rises steadily but slowly over the 30 years of her retirement, from \$34,669 to \$40,790. Exactly the same happens in the *high taper* case, because matching income is the whole point of her *high taper* strategy.

Her nominal income rises faster than real income, as shown in Figure 1:

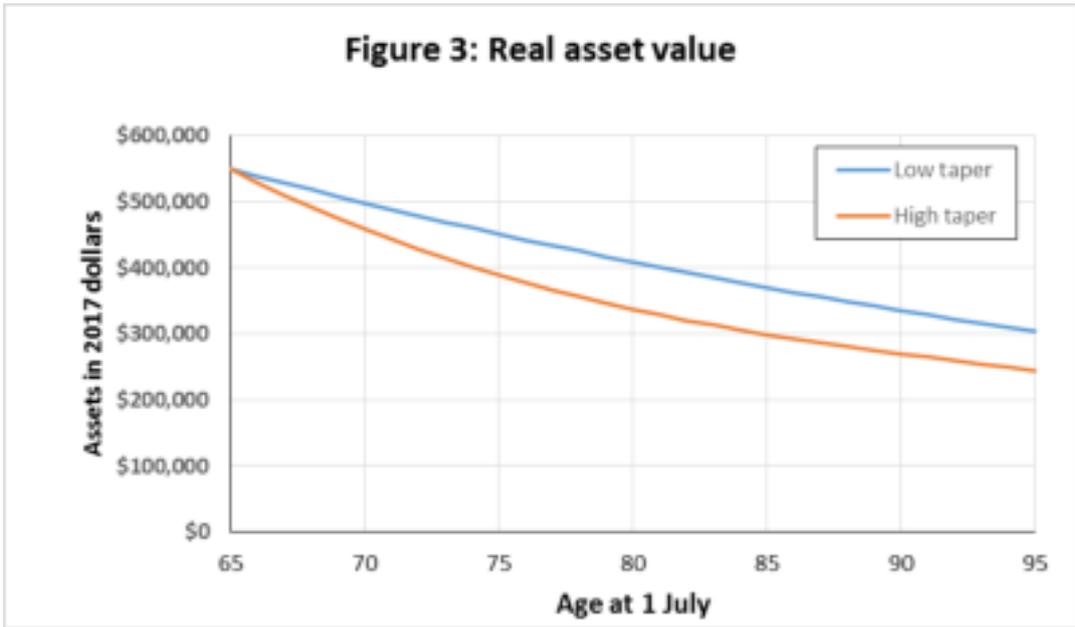


The story is very different for Susan’s assets:



In nominal terms, although the initial *high taper* hit is small as mentioned above, after 16 years she only has about \$450,000 left. A few years later this has settled down to about \$442,000 where it remains – a drop of about 20% compared to the *low taper* case, in which her nominal capital was preserved.

The real value of Susan’s assets declines steadily regardless of the taper rate:



During that last 15 years, the real asset value is about 20% lower in the *high taper* case, like the nominal asset value. This equates to a loss (in 2017 dollars) of about 11% of her initial capital, but that comes on top of a loss of 45% in real asset value simply as a result of inflation so it’s a pretty severe hit.

Retirees amassing wealth

The inexorable degradation of real capital which is such a startling feature of Figure 3 is something our politicians don't talk about much and when they talk about retirees amassing or preserving wealth in retirement, they are usually referring to nominal wealth as per Figure 2. Misleading? Indeed. Listen carefully.

Just in passing, because I don't want to pursue the point in detail here, if Susan wanted to preserve her real asset value in the *low taper* case, she would only draw the investment return after fees and inflation, i.e. 2.5% or \$13,750 initially, making her initial income just \$573 per year above a full pension. This gives another perspective on Susan's wealth: it's almost impossible for her to retain the real value of her assets, let alone amass more, even in the *low taper* case.

Value of capital

The government would say that it is appropriate that Susan has used some of her assets to help fund her retirement, rather than just pass those assets on to her beneficiaries. But the loss of assets does not just affect her estate: it is money that would have provided some resilience against emergencies, or to help with care late in life.

This latter purpose of capital – resilience – is tremendously important. Although plenty of government support is provided in, for example, health care, you can often do a lot better with some money behind you. Not all treatments are well-covered by Medicare; some are extraordinarily expensive, or lead to long term living costs; and it may come as a shock that “elective” surgery only means that the condition is not (yet) life-threatening.

But financial resilience is also important on the day (we all have them) when the washing machine self-destructs and the car sputters to a halt on the freeway; or when a close relative or friend needs some serious support.

A significant burden is removed from the government's shoulders if retirees have the financial resilience to cope themselves with many of these financial shocks.

Unfortunately the government seems to pay no heed at all to these important purposes for capital in retirement; they always talk as if the only purpose of holding capital is to generate income for day to day living, which is both simplistic and naïve, and in the end is against their interest too.

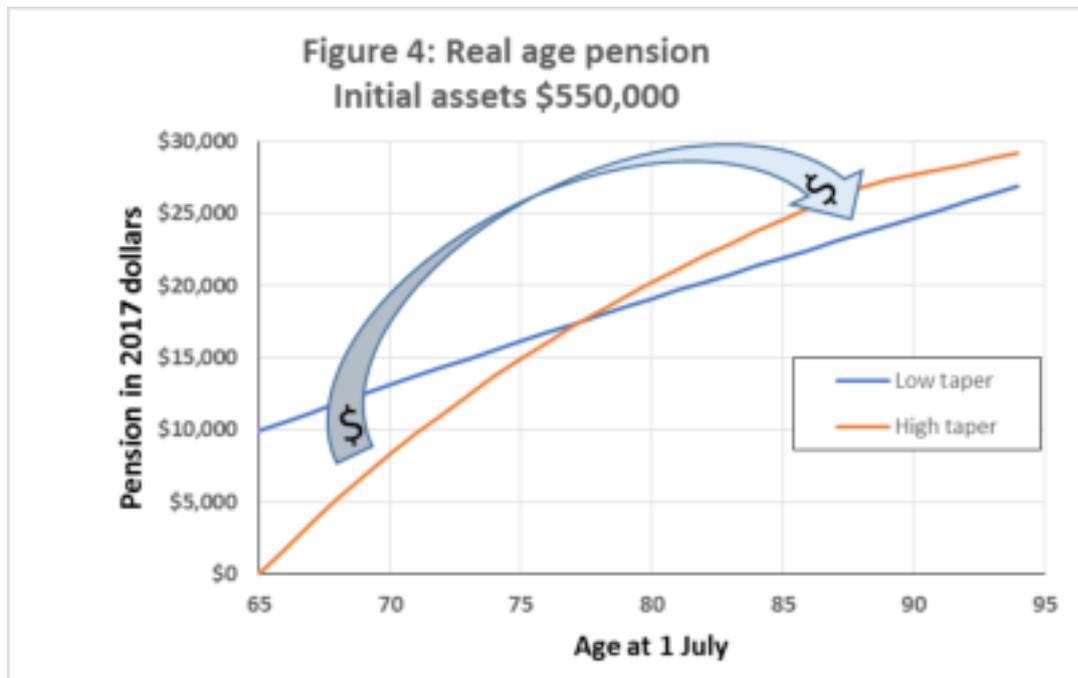
Having said that, let's get back to income which the main story here. It should be obvious that depletion of Susan's assets also reduces the income they earn, which will make Susan more reliant on the pension as she gets older. We'll see how that unfolds below, as the story gets stranger.

Pension costs

Although Susan loses \$59,843 in real asset value after 30 years, the government has only saved \$18,770 (in 2017 dollars).

Susan loses \$3 of assets for every \$1 of pension the government saves, which is incredibly inefficient. What on earth is going on?

Figure 4 helps make it clear:



Up until Susan turns 77, the government pays her less pension under the *high taper* rate, saving \$56,962 (in 2017 dollars) during this period. But from 77 on, her assets have decreased so much as a result of topping up her income that the government ends up paying her more pension than they would have if the taper rate had remained low.

They give back \$38,192 (so their net real saving through Susan's lifetime is only \$18,770) but all this does from Susan's point of view is stem some further erosion of capital: she will never recover the capital she lost in the early part of her retirement.

This situation arises because the *high taper* curve in Figure 4 is steeper than the *low taper* curve, and that is because:

- More rapid drawdown of assets in the *high taper* case pushes Susan's pension higher
- The higher asset taper further increases the rate at which this happens

This double whammy is an essential consequence of trying to raise revenue by changing the taper rate. It is not a consequence of the particular strategies I have assumed for Susan. Any strategy in which the real value of assets declines significantly through retirement will give essentially the same result (the numbers will be different, but the same effect will occur).