A Weather Eye on Superannuation

Submission to Productivity Commission on "How to Assess the Competitiveness and Efficiency of the Superannuation System", August 2016.

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In Brief

This submission presents evidence that the Commission should broaden its inquiry to assess the effectiveness of our superannuation system. Pursuing the current narrow path would be sadly unproductive.

Super is demonstrably ineffective as a pillar in the retirement system, it is uncomprehended by all its stakeholders, unsustainable and poor value for money.

Super is inescapably inefficient by design. Applying Commission resources to assessing competition in the current system is a stretch too far when the basic determinants will best be influenced by rational reshaping of the system.

Introduction

At the outset, the Commission needs to be aware that the origin of the nation's super is political/industrial. Super, as we know it, did not emanate from targeted policy research, as in Sweden for example at about the same time. In Australia, inquiry and modelling was scant, mainly carried out by Treasury and focussed on fiscal implications. Only with this perspective can sense be made of the pervasive deficiencies in our super, which this submission will explain. Only with this perspective can it be imagined why nobody cared about risk and efficiency. Political and industrial priorities left no room for the basics to be addressed.

We have explained the political/industrial genesis in some detail in the Tax Policy Journal 2016 (copy of the paper provided). It presents convincing circumstantial evidence that the super structure inflicted on Australians was devised with motives other than simply the interests of citizens and taxpayers. As observed by the then Finance Minister[i1]:

> *Consistent with the policy of putting the interests of those with jobs ahead of those without jobs, the ACTU was in favour of compulsory employer-funded super. It will certainly provide better retirement incomes for those who have and keep jobs – especially highly paid jobs. But for those not in that fortunate category it will:*
>
> *(a) diminish their chance of getting a job, and*
>
> *(b) be a cost-ineffective investment because a very large proportion of the (smaller) contributions will be gobbled up by administrative expenses*
>
> *These are a dead weight social loss, but are a pot of gold for those, including unions, who can get into super fund management.*

And John Howard then as Opposition leader is reported[2] holding grave reservations:

John Howard claimed at that time that the superannuation deal was a disguised pay rise and nothing more, and that the real goal of the exercise was a massive transfer of economic power in the community to the trade union movement.

Reaction to the Commission's Draft Paper

Reading through the Commission's draft paper one feels that the fundamental issues have been missed. The concentration on 'method' to 388 pages, admirable as it might be, is pitched within apparently arbitrary boundaries. Much of the deduction is to be left to analysis of asset investment returns. This risks the wood being lost for trees. As an Irishman once suggested that thought is required about where to begin a journey.

The Commission would do the nation a singular service by broadening the horizon of this inquiry. While the Commission's intention to assess efficiency and competitiveness of our super is appropriate, the effectiveness of the current system in contributing to retirement

[1] *Confessions of a Failed Finance Minister,* Peter Walsh ,Random House,1995, p243

[2] *Choice of fund – myths and realities for members and markets*, Ross Clare, ASFA Research Centre 2003

policy should first be assessed. It would be entirely unproductive use of the Commission's talent and resources to become preoccupied with, and limited to, the efficiency and competitiveness of a system the effectiveness of which is highly questionable. Not only is that a waste, but Australia ends up with yet another review that does little but entrench and dignify the existing damaging conceptual basis of our super, and the consequent poverty of practice.

Intellectual Paralysis

Australia's super is in intellectual gridlock, clagged by self-interest of the finance and super industrys, since inception. That is about the only aspect of our super which is truly long term. The common complaint of short-termism is well founded. But funds' practices cannot be any other way as no conceptual basis exists to describe, or even discuss, long term investing.

Into the void created by our super twenty years ago spilled the intellectual trappings of the wealth management industry. There is an essay to be had on that topic alone, illustrating why "modern portfolio theory" is largely irrelevant. After more than twenty years of accepting compulsory contributions from hapless Australians who hope for a long term financial benefit, the industries' conceptualising of long term investing has not advanced beyond manipulating mean annual returns.

The statistical mean offers meagre information. Which is why meagre information is exactly what our vast national endeavour of super is built upon. Because the industries' understandings are so meagre, their practices are based on false premises. Because the critical risks remain unidentified , much less measured, citizens and governments are misled. A stultifying complacency has damaged the prospects of every individual conscripted into super and the taxpayer, in an ongoing debacle.

The intellectual malaise becomes especially corrosive when the policy makers also are captured. Again, that has been the case since the early days of super. Neither regulators nor Treasury has exhibited the necessary intellect or capacity to question current practices beyond an occasional constabulatory foray[3] .

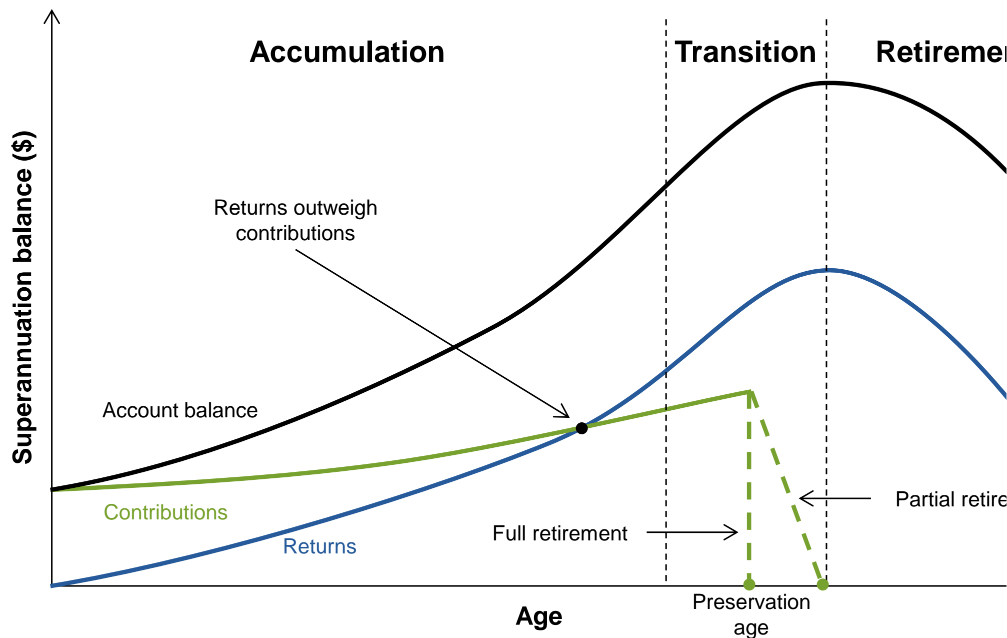
I hold some hope that the Productivity Commission can distinguish itself, but the rot is already evident in your draft paper. What we will call the 'mean-mentality' is already driving your thinking. That is not meant to be damning. It can be expected that an independent inquiry probing an industry would commence with its mentality and language. In what follows I illustrate the effect of the mean-mentality on stakeholders including taxpayers by way of a dialogue with two Australians, Hapless and Hopeless.

The Mean- Mentality

Your report describes our super system through the chart below (p26)

[3] For example, ASIC was requested by the government in 2005 ? to come up with a way of enabling Australians to understand what they would receive after a lifetime in super. That inquiry was abandoned, the regulator's staff at all levels being truly incapable of comprehending the term "risk". Nothing has advanced since, bar some tortuous work on 'dashboards' – still way off the mark.

Figure 2.1 **A simple schema of the three phases of superannuation**



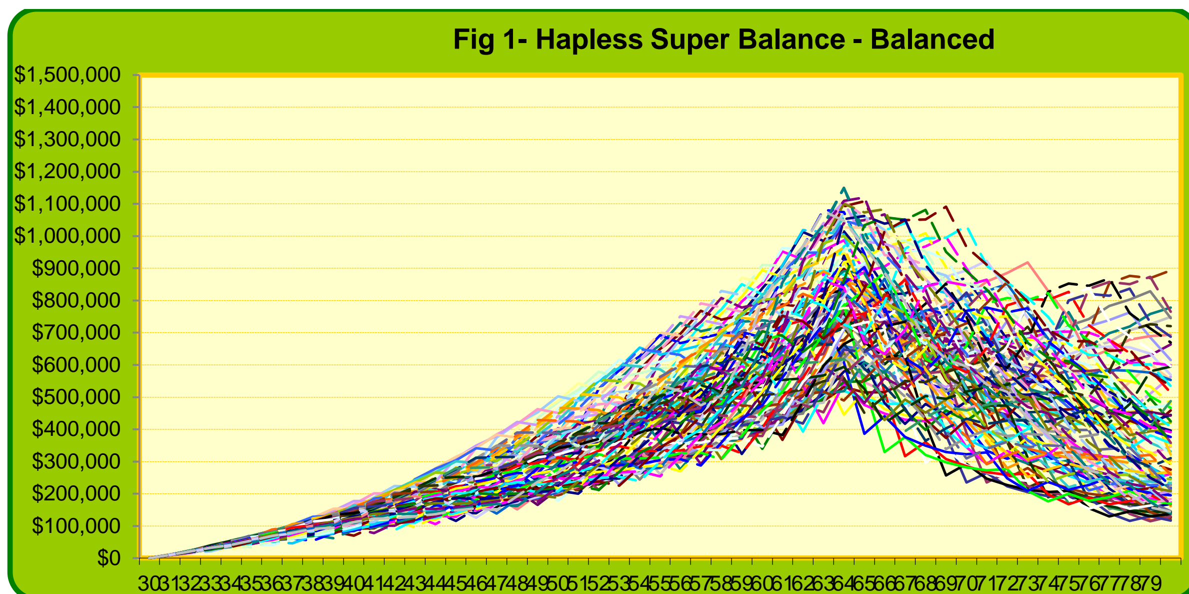
This provides a comforting picture of predictability as a citizen moves through life. While you call it a ‘simple’ picture, no description of the super journey has ever moved beyond imparting this comforting predictability.

The trouble begins when one realises that this ever so common depiction has zillions to one chance of occurring. The only reliable value is the starting account balance.
Why? Because this graph plots the average or mean balance at each year. And its reliability as an indicator of the future deteriorates with every year. By the time one gets to the bit that really matters, on retirement and thereafter, it is almost worthless as information on what sort of retirement to expect.

Perhaps there are a few policy makers who realise this. But why have we not moved beyond it? The generous answer is that this few have assumed it makes little difference in the end. Which is dead wrong.

Policy makers need to know the risks that they are inflicting on citizens and taxpayers. And they need to be able to measure them and describe them is a way that is both relevant to you and comprehensible. The risk advice given to everybody in super is neither of these.

Let’s look at the prospects of **Hapless** – a thirty year old just kicked out of home, with his first steady job paying $ 60,000 who gets put into a default fund with balanced investment.



Contrast this prospective life journey with your ‘simple’ Figure 2.1.

Here we have identified a large number of pathways the super journey could take out to age eighty. Each path is equally likely but each has only a small (less than 1%) chance of eventuating. It is highly unlikely that Hapless’s super journey will fall outside the upper and lower boundaries shown at any time.

So the reality is very different from that imparted by the mean-mentality of the super industry.

HAPLESS: “What does it all mean?”

ANSWER: Well, Hapless, it looks complicated but it shows the reality facing anyone in super.

You could find yourself on a path which is a really bumpy ride and ends badly ie after a lifetime working you could have $500,000 at age 65 and then just $100,000 left at age 80 (providing you don’t take out any in a lump sum).

Or you could just sail through and come out far richer than expected – holding a balance of $900,000 at age 80 after having drawn an income out of the balance for 15 years.

And, as you can see, there are lots of in-between possibilities.

You cannot pick and choose which route you will take. Nor can you tell in advance what will happen to you within these boundaries – because you are at the mercy of financial markets.

HAPLESS: “ What good is this information?”

ANSWER: In its raw form like this you get a good feel for the span of the risks you run, visually. And you can look at the key points which are critical – like at retirement and in late

life. That is, these charts expose the uncertainty inherent in super; unlike the mean-mentality lines drawn by the super and finance industries which are badly misleading.

This is the stochastic reality of super.

HAPLESS: Sounds like a disease. How does it help me make decisions?

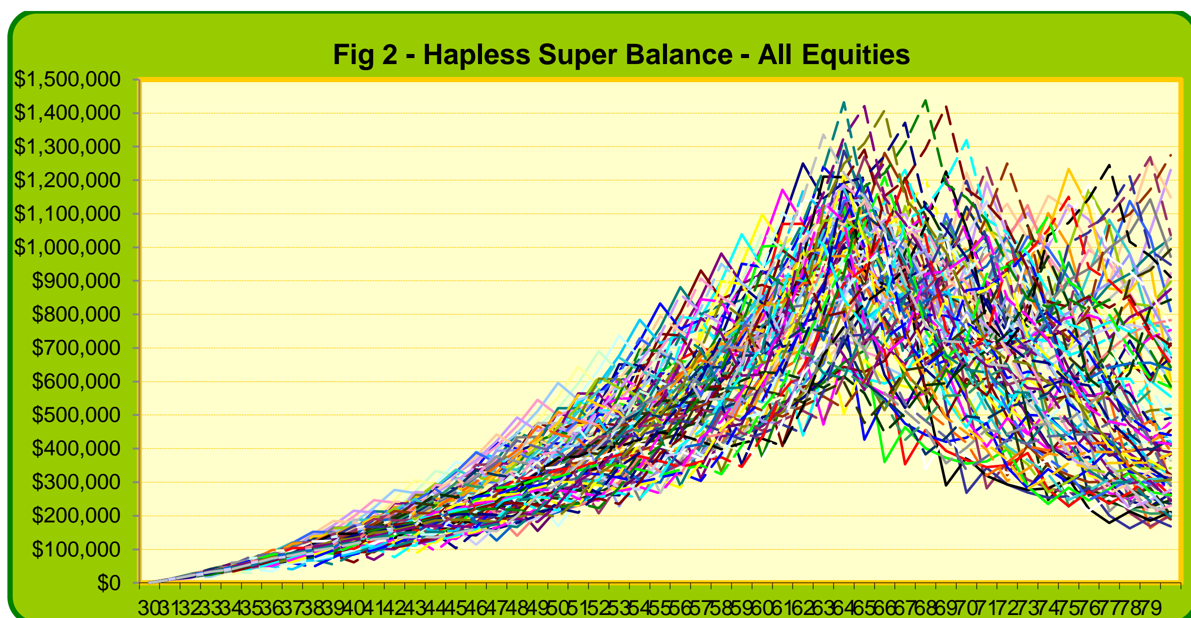
ANSWER: A disease is a good way of thinking about it – one that you don't know about which affects your future unexpectedly. There are ways of dealing with it, which boil down to you coming to terms with the risks you run and managing them.

Charts such as these can be converted into estimates of your chances in super. Let’s use just a bit more technical language. At each year on this super journey we can derive a probability density function, then take the integral that to find out the chances of exceeding any chosen balance at any time. For example, if you want to know what chance you have of obtaining $900,000 or more on retirement that can be calculated. Or if you want to be at least 80% confident of your outcomes over time then we can draw a line showing that boundary (such as in the Commission’s chart, but much lower).

Get it? You have to move to a mindset of chance – there is no way out of it with Australia’s retirement system. You can never be 100% sure. So you have ask yourself how confident you want to be of your retirement finances. That’s the beginning of managing the risk for your retirement.

HAPLESS: What can I do to get better rewards for my risk?

ANSWER: A few things, one of which is quite surprising. The balanced investments that you have are common practice; the industry regards them as moderate risk. People like you are told that to change to a portfolio of all shares will very risky. But, again, this is misleading advice, caused by the mean-mentality.

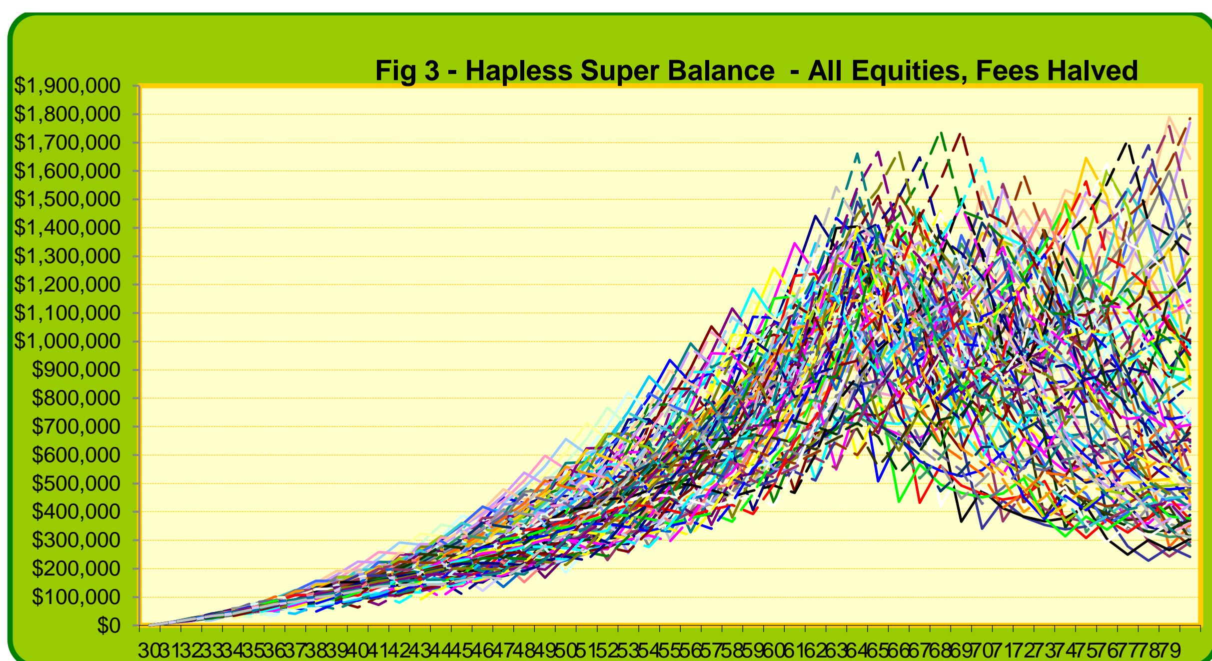


Observe how the whole tangle of potential balances has moved up. Your risk as defined by the lower boundary is reduced because the worst balances are much higher than from the balanced portfolio ie from around $100,000 at age 80 for balanced to around $200,000 for all- shares. And the upside is far better – you could end up with $1.2 million at age 80 even after drawing income for 15 years.

Our research into long term asset prices shows there are good reasons for this asset behaviour. It has to do with serial correlations in asset behaviour over time. But the whole industry has shown no interest in the time dimension in investing. Modern portfolio theory ignores time as a factor, yet that is what drives everything in super investing. People (and taxpayers) have suffered as a result. The finance and super industry have really struggled to move beyond the volatility of annual asset returns as a risk measure[4] – of little relevance because it can say nothing about the benefit and income results you want to know about.

Let's hope the Productivity Commission comprehends this, because its report seems to shy away from strategic asset allocation as a means of improving super outcomes.

Of course, it is right to look at reducing costs as a way of improving your super balance. Let's see what happens if we halve the annual fees – from 2% to 1%. Once more we see large gains, with the upper possibilities pushing toward $2 millon at retirement and even remaining at age 80, while worst outcomes also are much improved.



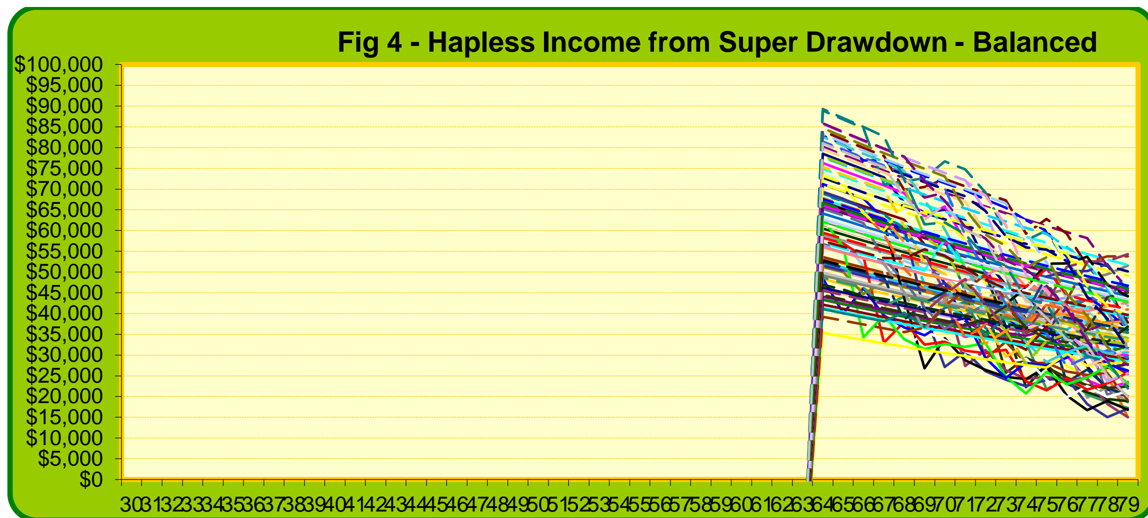
Note also that the density of outcomes is more uniform across the span of possibilities after retirement ie the distributions have flattened – which means there is reason to be optimistic about much higher outcomes. Lowering cost is immensely productive in ways not appreciated through the mean-mentality (as in the Mysuper review).

[44] The probability of negative investment returns over modest period, as in product 'dashboards, derives from annual volatility and is no better.

Income and Systemic Unsustainability

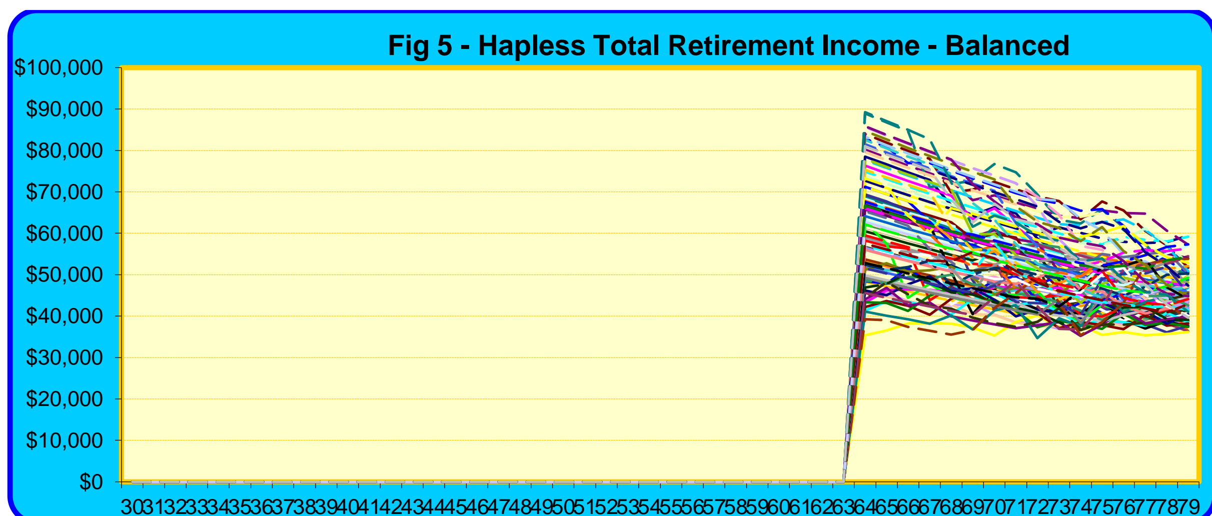
HAPLESS: What about income after retirement?

ANSWER: Good question - income is what you are ultimately interested in. Again, you cannot be sure of your income. But the uncertainty is less because the taxpayer takes on a lot of your risk. Let's go back to your start point with balanced investments and rip-off fees. Shown below is the spread of your annual income possibilities for that case.



Your income possibilities are wide, from $40,000 to $90,000 pa to begin - that can't be avoided. When you hear 'thought leaders' proclaiming that people should have an income objective which is some proportion of their working income(eg 60%), then you know they are sadly overpaid.

Observe that your income will fall as you progressively take a set amount out of your balance. So by age 80 your balance could sustain only as little as $15,000 pa. It is here that the taxpayer coms to the rescue. Provision exists to have your super income topped up by the age pension. When the two are combined your total income possibilities look better:



Observe that your worst cases have been removed. The taxpayer has taken on the risk of every possibility below about $40,000. You might think you can sleep reasonably soundly. But you cannot really because this linkage with the age pension is fiscally unsustainable.

This is where the super's systemic risks are concentrated and policy makers have little clue about them; because the mean-mentality is hiding reality again. To illustrate, the government is assuming your income from balance drawdown is the mean value – so most of that downside which is shown in your Figure 4 is not counted by the government when it projects its age pension liability. Chance will have it that periods will arise when much more age pension is demanded than is expected. Those periods of low investment returns are likely to coincide with broader budget revenue pressures.

Treasury stumbled across this flaw some years ago and chose to avoid addressing it. Even with Treasury's blunt mean-mentality modelling a simple sensitivity analysis revealed the problem.[5]

Deep flaws exist in the super pillar of Australia's retirement system; its effectiveness is questionable on the grounds of sustainability.

Standard Practice Is Widely Damaging

Strategic investment wisdom has long advocated that funds' default settings should be a balanced portfolio for the accumulation phase, moving to a defensive setting on retirement. This logic stems from the mean-mentality where risk is taken to be the standard deviation of annual returns of an asset (ie its volatility). The assertion is that a defensive portfolio (fixed interest, cash) will be acceptably predictable for the ageing.

HAPLESS: A financial adviser says I should change to safer investments in my old age. What's that mean?

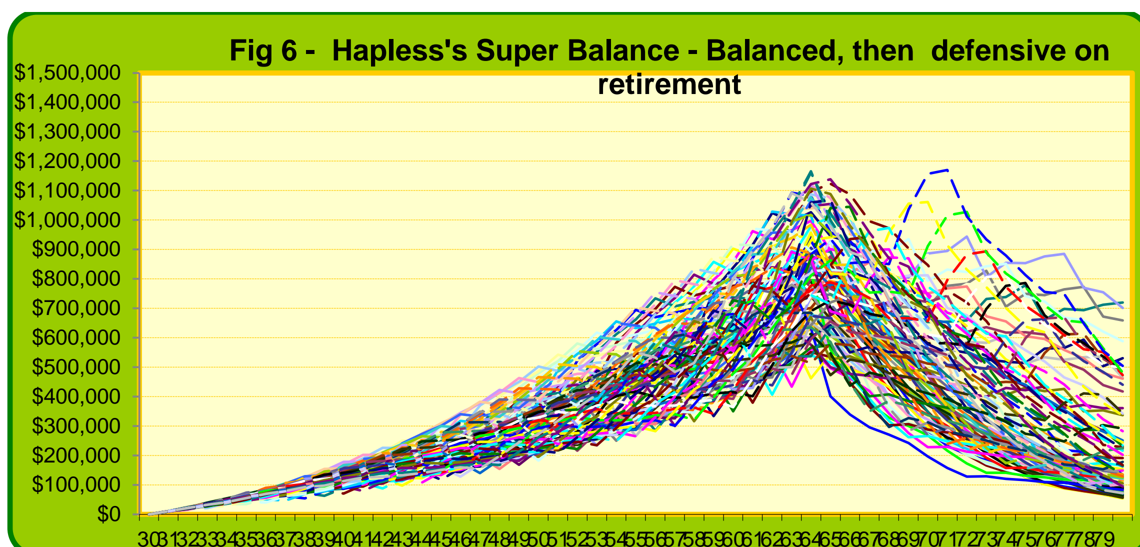


Fig 6 - Hapless's Super Balance - Balanced, then defensive on retirement

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[5] *The Adequacy Of Australian Retirement Incomes - New Estimates Incorporating The Better Super Reforms,* Paper presented to the Fifteenth Colloquium of Superannuation Researchers, University of New South Wales,19 & 20 July 2007,Dr George Rothman, The Treasury, Canberra. http:// rim.treasury.gov.au/content/CP07_1.asp
For discussion see: *Superannuation tax, adequacy and uncertainty*, Agnes Pentland, Tax Policy Journal, 2008.

ANSWER: This is **a**nother reason to treat advisers with suspicion. As you can see above, your balance after retirement will still be highly uncertain with 'safer' investments. However, the risk you run of having less money than you need is greater. At age eighty you could have as little as $50,000. And the density of outcomes at that age is mainly less than $150,000. So going to this defensive portfolio will really damage your prospects – compare it with Figure 1. And check it with Figure 2 to see a really productive strategy also having less risk on the downside. Who said greater return requires greater risk? The mean-mentality, of course.

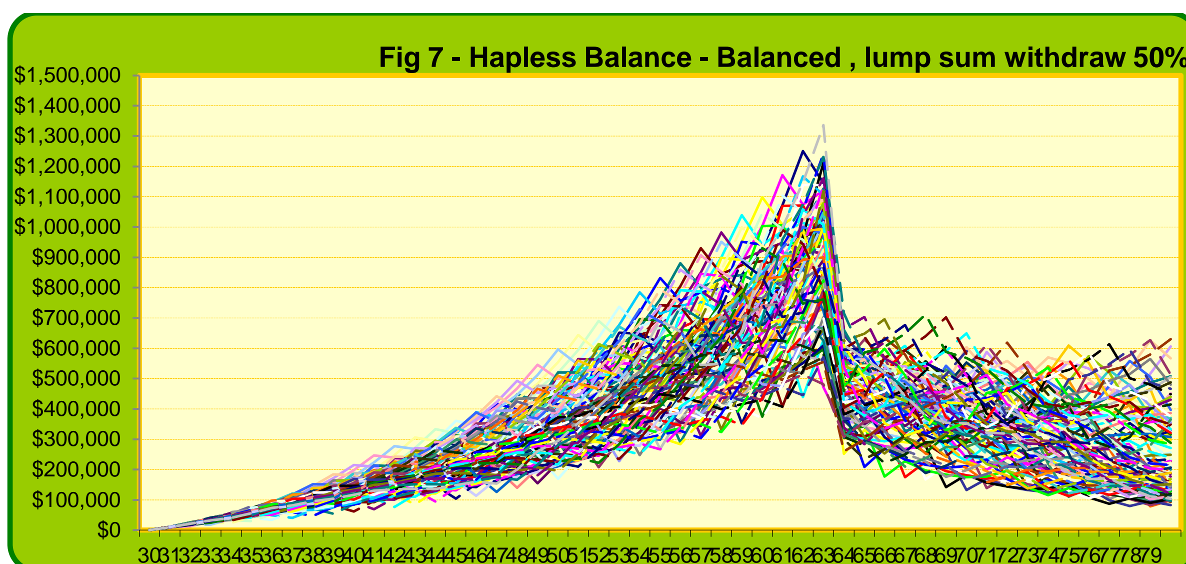
The beliefs and advice of the super and finance industries are plainly misleading. If they had shown any curiosity about the product they are meant to deliver (retirement benefits and income, not annual investment returns), everybody should be better off, with less risk. And the taxpayer would be much less vulnerable, because the call on the age pension would be reduced.

Where the Wheels Fall Off

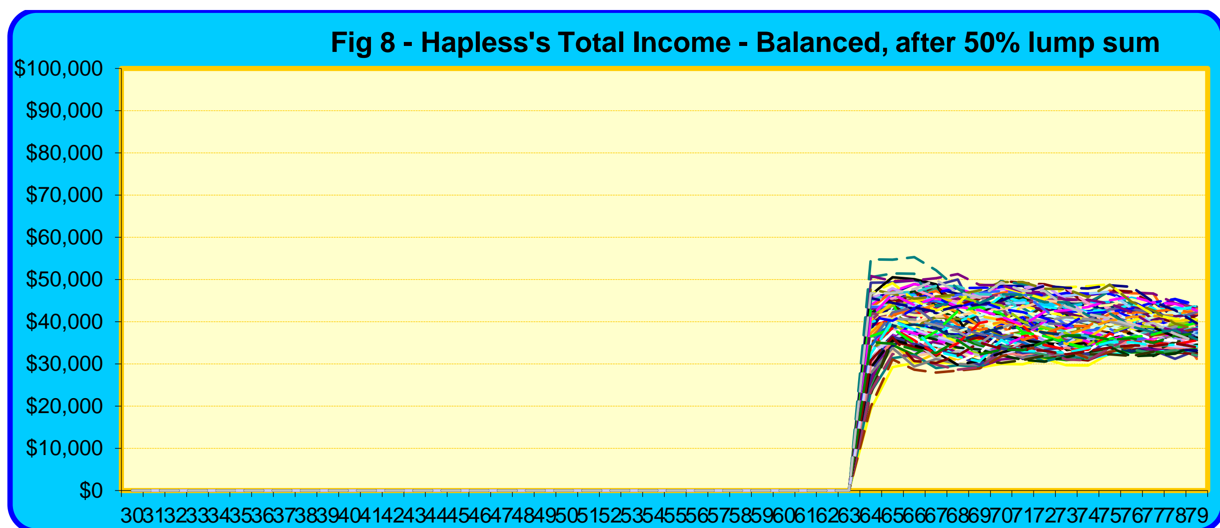
All of the above assumes behaviours which follow the elementary path of accumulation followed by converting all savings to income. At this point Hapless is beginning to wonder about his other dreams.

HAPLESS: I've always wanted to get a Landcruiser and caravan when I retire. What if I take a bit of my savings as a lump sum?

ANSWER: Lots of folk do that. The way the super system is set up so you can take out as much as you want for any purpose without paying any tax on it. And you can still do well in retirement, because the government then tops your income up with more age pension.



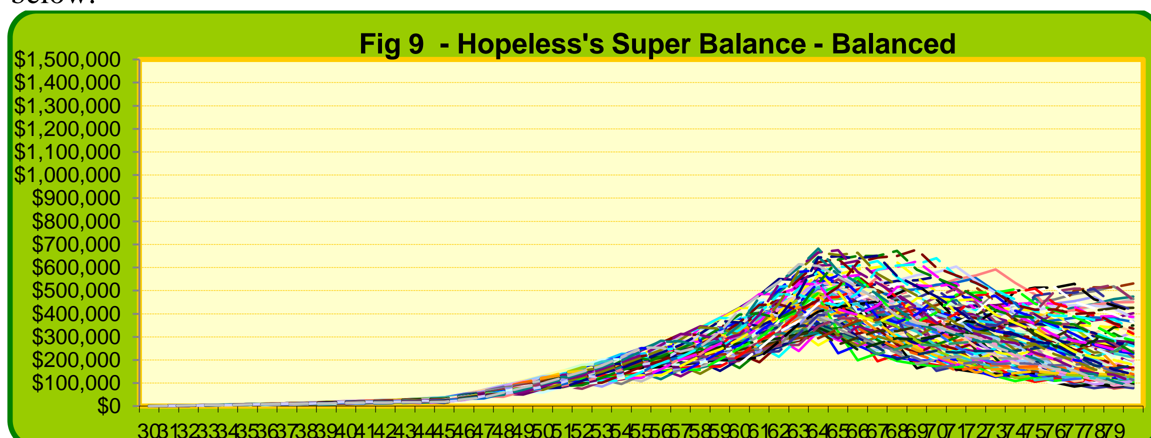
You see much smaller balances to generate income in retirement. However, the reduction in income will be modest around the lesser possibilities, and it will be more predictable because it is mainly the age pension (Figure 8 compared to Figure 5). Whereas without super, you would receive an income from the age pension of about $20,000 pa, the worst case now is about $30,000 and it could be as much as $50,000. –see Figure 8. However you might not sleep so well knowing that plenty of others are piling into this lurk, and if the system is unsustainable even without this practice you shouldn't be surprised if the wheels fall off government benefits just when they are really needed.



At a policy level, the combination of significant tax concessions through Hapless's life being convertible, tax free, into expenditures removed from the retirement income equation, and guaranteed by access to age pension, severely degrades the effectiveness of super against the objective of enhancing retirement income through substantial tax concessions.

Super is Little Help to Many

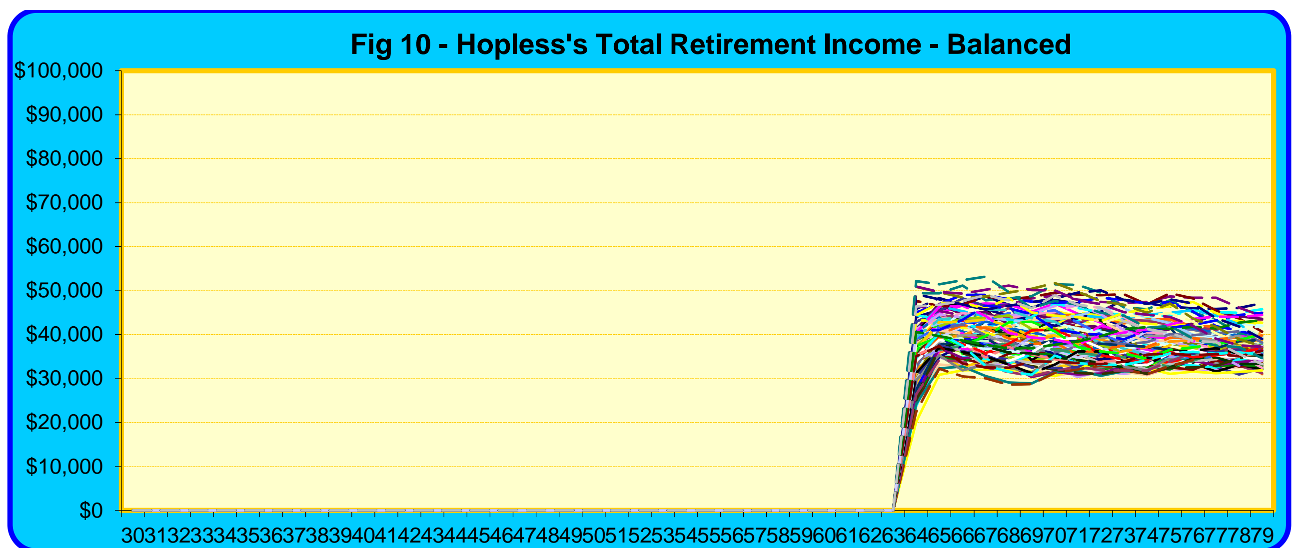
Minister Peter Walsh observed on the creation of super, it is ineffective for improving the retirement of those not conventionally employed. Let's look at another Australian we call Hopeless, who at 30 years old had studied at uni after leaving school, had part-time bit jobs and become a full time mum working one day a week. She expects to be unable to work full-time until age 45, then will have about average income. Her expected super journey is shown below.



Hopeless can see that her retirement income prospects from the super balance look much like Hapless's after he has removed 50% of his balance as a lump sum (Figure 7).

HOPELESS: It looks like all that time I expect to work fulltime after the kids have given me room will have little effect on my income in retirement, right?

ANSWER: That's not quite right. Even though you have started late you can expect to have significantly more income than the age pension of around $20,000 pa (Figure 10).



But you most probably will be drawing heavily on the age pension all your life. The effect on the taxpayer is about the same as Hopeless's after he has trousered half his lump sum – but you won't have a Landcruiser and caravan.

HOPELESS: But I would probably prefer to have the money I have to put into super for the precious few years I am able to work – particularly as I don't know if my money is being managed intelligently and in my interests alone.

ANSWER: That is a reasonable view, taken on better information than anybody out there has. The trouble is that governments' have never really understood what they are forcing people into when they compel them to 'contribute' to this super contraption.

Superannuation is marginally effective pillar of retirement policy for the cohort that has significant lifetime outside the employed workforce, underwritten more heavily by the taxpayer than government's realise.

And super loses effectiveness from the individuals' retirement perspective and the taxpayers', when the proceeds of accumulation years are cashed in.

Effectiveness – The Acid Test

Because the essence of our super system is not understood by any of the stakeholders, and its future is unsustainable, any sane soul would proclaim it to be ineffective. But the acid test for

effectiveness is value for money. The question is whether super is value for money, in spite of fundamental failings.

The effectiveness of super should be measured against its policy objective of increasing retirement income beyond the age pension or substituting for it, through income tax concessions. Currently that increase is made possible by workers 'contributing' 9.5% of their pay to super throughout their working lives. A conservative estimate is that the government loses $17 billion annually in foregone tax revenue due to the tax concession on this 9.5% cut in workers' incomes.

Accepted evaluative practice is to derive a benchmark which embodies the essence of the objective, from established principles for allocating taxpayers' money. The benchmark we use is the simple alternative of *ending the compulsory contributions and using the resulting $17 billion boost to tax revenue to directly fund higher age pensions*.

The logic for this benchmark has been well put by Arthur Seldon[6] :

> *The community is hardly obliged to keep a retired skilled worker in a larger car than a retired semi-skilled worker, or a retired office manager in smoked salmon because he was accustomed to it.*

A Seldonian approach would apply a flat rate increase to the age pension - the primary target for super being lesser income workers; indicatively the lesser half.

To assess the effectiveness of the current system *w*e used the Treasury RIMHYPO model for retirement incomes, taking the median worker in the 'best case' of saving over a full working life and all the balance directed to boosting long-term retirement income.

According to this Treasury model the median worker will benefit from super with a boost to retirement income beyond the age pension by ~45%. This is a substantial gain. But a gain that will not be fully realised until the super system matures in 15-20 years time.

Also it is the median gain. So most of the poorer half of workers would get less than this, some much less. And it is a highly uncertain gain as the end savings in super depend on factors like work history and compounding risky investment returns over decades.

This result of 'up to ~45%' for the lower half of workers' incomes has a high opportunity cost - decades of lost income for those who can little afford that loss.

Against that, we calculate that the **benchmark of ending compulsory super** and using the resulting $17 billion increase in tax revenue to directly fund higher age pensions, would result in:

1. A permanent and immediate ***boost to the age pension of ~40%***.
2. A permanent and immediate ***increase in take-home pay for most workers of ~10%***.
3. Higher and predictable future retirement income for the priority half of workers.
4. No change to the Federal budget bottom line and no cost to employers.

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[6] British economist

The simple retirement income benchmark of scrapping the Superannuation Guarantee is superior value for money. It is a sounder and surer alternative for meeting the objectives of our retirement system.

Overall, the experience of the last twenty years with the Superannuation Guarantee demonstrates that it suffers from many and major failings which cause it to deliver poorly. Super as we know it can no longer be accorded credibility as a 'pillar' of Australians' retirement prospects.

The Efficiency of Super

The Commission's paper looks sound enough in its proposals to probe efficiency, in so far as it goes.

That your investigation has to be broadened is obvious from the foregoing evidence. We tender our paper from the Tax Policy Journal 2016 as a contribution to your consideration on efficiency, as it addresses the congenital legacy of inefficiency.

In brief, Australia's super is inefficient by design. The myriad-fund approach served other purposes. Efficiency was never considered in crafting the retirement system we have today, in contrast to Sweden which introduced a new system at about the same time wherein efficiency was a critical design parameter.

In assessing investment efficiency the examination has to go beyond asset returns. Investment strategy and portfolio level practices are more important detractors of value than degradation to asset returns.

Competitiveness in Super

We lost interest in the Commission's paper at this point. It is obvious that competitiveness has been purposefully designed out of Australia's super system. The changes over the years have been token. Clients are supplied to funds by fiat, and receive a product that neither they or the purveyors understand, much less able to communicate.

A good indicator of competition in an industry is innovation. As has been demonstrated here, the rich research possibilities centred on the stochasticity of long term investing are untapped. Whereas Markowitz revolutionized perceptions of risk in wealth management by shaping an 'efficient frontier' built on cross- correlation of asset returns in a single period, similarly profound impact on risk is available by knowledgeably exploiting serial correlations of asset returns over multi-period investment horizons. That has been unwanted news for our super industry. It is not that the industry hasn't been exposed to the possibilities, professionally. The industry has inured itself to the reality of its product.

If you are serious about wanting to understand this industry's dogged determination to avoid innovation, exhibited by the largest funds in the country and the regulators and the asset consultants then we will be pleased to place the evidence before you.

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