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Editorial

The feature topic selected for this issue of the Tax Policy Journal is Superannuation. The aim of the papers presented is to enhance the understanding of the need for the implementation of a better, fairer and effective compulsory long term national superannuation policy.

For individuals, superannuation is basically a long-term investment strategy providing economic security in retirement. From a government policy perspective, superannuation should be an effective policy strategy enabling Australians to provide for their retirement and minimise the long term budgetary demands for welfare payments.

The track record and history in the area of superannuation is littered with complexities and lacking in fairness, including:

- decades of little regulation before it was made compulsory, followed by three decades of continuous change creating significant levels of complexity and regulatory compliance;
- providing overgenerous and unsustainable defined benefits for some members;
- resistance to the funding levels of compulsory superannuation contributions;
- introduction of taxation of superannuation funds whilst the level of funding members' entitlements was less than the projected long-term retirement needs;
- introducing generous incentives and benefits that only a limited percentage of the population could avail themselves of;
- compounding inequities and complexities with grandfathering provisions.

What seems to be lacking in current discussions and debate is a willingness to explain and persuade our nation of the need to embrace a viable long-term compulsory superannuation strategy for Australia that is fair and reasonable. For the future, the implementation of such a strategy that is equitable and sustainable will need to:

- carry a simple message to the public that the primary policy purpose of the compulsory superannuation policy is a savings mechanism for members' retirement with mandated rules by government; and
- explain that some of us will need to accept changes having adverse consequences for us personally.

Examples of changes that may contribute to achieving an equitable and sustainable national superannuation policy objective are set out below:

- ensuring that the level of contributions for members and projected earnings meet the long-term policy target for benefits;
- align the retirement age for the receipt of superannuation entitlements and other retirement benefits
- tax all deductible contributions, income and gains at 15%;
- limit the lump sum withdrawal by a member from superannuation funds, on a tax free basis, to $250,000 with a reasonable indexation uplift formulae for the future;
- all superannuation pension payments assessable to members, grossed up for a 15% refundable tax credit;
- eliminate all grandfathering provisions;
- eliminate exemptions from compulsory superannuation contributions;
- safeguard members' superannuation entitlements.

Australia's Superannuation on a Bigger Map

Dr Mike Gilligan[1] and Dr Stuart Craig[2] , Risk Research International

During the war with Napoleon, the Duke of Wellington received a report from a Lieutenant who said: 'Sir, Napoleon's forces are advancing; the battle is lost'. He called him aside and said:' Get a bigger map, and you will see that we have won the battle.'[3]

Introduction

For most of the past century the Australian retirement income system consisted only of the taxpayer funded and means tested 'Age Pension'. This aimed to alleviate poverty amongst the elderly by providing sufficient income for a frugal standard of living. Until now most elderly Australians have depended on the age pension for their income.

But in the early 1990s this simple system was transformed into the current 'three pillars' structure: the age pension, compulsory personal saving under the Superannuation Guarantee (SG), and voluntary personal saving into superannuation (henceforth 'super'). Concessional tax rates of 15% increase the rate of saving. These monies are held by a myriad of super funds. This expanded system has been portrayed by its proponents as eventually raising the retirement incomes of most Australians to (much) more than the age pension, delivering a comfortable lifestyle in later years.

Today's retirement system is widely regarded within the super industry as superior. It was ranked highly in terms of 'best in the world' against adequacy, sustainability, and integrity under the Global Pension Index devised by actuaries. The Association of Super Funds of Australia (ASFA) describes it as 'world class'[4]. Within this context of self-admiration, pleadings and intermittent reviews have focused on upping the compulsory revenue from workers and, latterly, on the costs inflicted on Australians by a sprawling body of funds.

We consider this positive assessment to be wrong. It amounts to the narrow viewpoint of the Lieutenant assessing Napoleon's onslaught. It largely ignores strategic issues of costs, effectiveness and efficiency, and therefore alternatives which are apparent only in stepping back from topical debate ie using the 'bigger map'. Our assessment is that the 'three pillars' structure is now more a retirement albatross around the necks of Australian workers and taxpayers than a 'world class' system. And that vast improvement is not only possible but is straightforward. To explain how the nation finds itself in this situation we have had to look at the history of super more deeply than most.

The 'Bigger Map' Part 1:

Compulsory Saving under the Superannuation Guarantee

Analysis below of the costs and benefits of the core of our super system – compulsory saving under the SG – shows its weaknesses and better ways to boost the retirement incomes of the half of workers on lower incomes.

Costs of the Superannuation Guarantee

The personal cost to workers of the compulsory SG is very high: a reduction in take-home pay of almost 10% for their entire working life. This means a large decrease in consumption opportunities during the prime of life when youth, then family and home consumption demands are high. And this 10% is even more significant for workers on lower incomes: for them most take-home pay is consumed by essential living expenditures, so the SG cuts deeply into discretionary spending.

There is also a high revenue cost to Government. The concessional 15% tax rate on SG and salary sacrifice contributions will cost the Federal Budget $17 billion in foregone revenue next financial year.

Gains from the Superannuation Guarantee

A sensible retirement policy should primarily improve retirement incomes for lower income workers over that provided by the age pension. So a critical question is how much will such workers gain from paying the SG throughout their working life?

To answer this we define "lower income workers" as the 50% of workers that earn less than the median income. We then use Treasury modeling to estimate net retirement income for a worker on this median income[5]. Treasury calculates this income by combining the age pension with a lifetime annuity purchased at retirement with super savings. In order to assess the full benefits of the "mature" SG we use the Treasury modeling for workers paying the SG for their entire working life. SG savings will be less than this until after around 2035.

For median workers the Treasury model estimates their retirement income from the age pension plus SG annuity will be 68% of take-home pay. Currently the median worker earns $58k and this falls after tax to $47k in take-home pay. So in 2016 dollars this 68% translates to a retirement income of $32k consisting partly of the age pension and partly of the SG

annuity. The full single pension is $22k. Thus the effect of the SG is to increase retirement income by $10k above the age pension that the median worker would get without the SG.

This is a substantial gain. But it is the median gain. Most of the lower income workers would gain less than this $10k – many much less. And that gain is highly uncertain, as the end savings from the SG depend upon stochastic investment returns over decades.

Weighing Costs versus Gains for the Superannuation Guarantee

So, for the lower income half of the workforce – which should be the primary target of retirement policy - how do we compare the certain large cost to take-home pay over decades with this uncertain modest gain in retirement income over decades[6]? There is no clean analytical way of answering this question[7] and plainly no clear evidence that the gains from the SG outweigh its high cost to most workers.

On this account alone we believe that the current compulsion is untenable. The benefits cannot be demonstrated other than by subjectively weighing risk across different revenue streams over time. People have different risk predilections. Therefore, workers should be permitted to evaluate the costs and benefits personally before deciding to forego significant income. This would be the case even if the SG rose to 12% or 15%; the underlying conundrum is inescapable.

The SG core of our superannuation system is far from "world class", or even good. And to demonstrate this further we show a way to improve retirement outcomes for lower income workers without the high cost of the SG.

What is Possible without the SG?

To demonstrate how retirement outcomes can be improved without the SG we assess a retirement policy option which:

1. Ends SG and the concessional tax on contributions, and
2. Uses the increase in income tax revenue to fund higher age pensions.

That policy could deliver right now:

- A permanent increase in take-home pay of 10% for most workers.
- A permanent boost to the age pension of 35%.
- Better and certain future retirement incomes for lower income workers[8].
- A big income boost for existing retirees on the age pension.

This comes at no cost to the Federal Budget.

So the opportunity cost of the core of the nation's super system is high. And this high cost is paid over a lifetime, both before and after retirement.

Obviously, retirement policy is sadly deficient for those most needing it. If you are wondering how a government in 1991 convinced itself that it was in the interests of most working Australians to compulsorily divert their income to obtain a doubtful prospect for old age, we will get to that.

This is far from 'world class' retirement policy, even assuming that the current SG system works efficiently, which we will find is also sadly ill-founded.

The 'Bigger Map' Part 2:

Super, Waste and Myriad Funds

If the policy parameters of the Second Pillar are suspect what of its innards? What of the operations, voluntary contributions and the vast investments now held across a myriad of super funds? We find that cost minimization appears not to have had any role in choosing the modus operandi for implementing super. The takeout in super fees has been extraordinary. Individuals' need for some predictability in their retirement has been ignored. Why? It has been necessary to examine the roots of super, to discover that super is a device which is much more political than rational. Large costs and low efficiency have resulted from political forces.

Empty Genesis of the Myriad-Fund Model

At the heart of Australia's super industry is *the fund*. The Australian Prudential Regulatory Authority (APRA) publishes statistics on more than two hundred and thirty funds – what it calls the major super funds. A fund takes money on behalf of individuals known as '*members*'. Each fund is owned by different bodies, usually connected to a major bank, trade union or union collective, employer group, or corporation. The analysis which follows has been confined to this panoply of funds because some systematic longitudinal data is publicly available (from APRA), and they hold most of the money. According to APRA these major funds had 28.3 million members in 2014.

A further useful distinction is that most of the APRA funds are either *industry* funds or *retail* funds. The former generally are half-owned by unions. The retail funds are overtly profit-oriented, housed within a big bank or other financial enterprise. In neither case do members own the fund, or have control over it, or any say about

its management. Each fund has its own board of trustees, and in-house staff, working within whatever distinctive influences the fund's owners might bestow. This operational structure of hundreds of industry and retail funds, which account for most Australians in super, will be termed the myriad-fund model[9].

Today's fund emulates an earlier form of super which was available to a minority of Australians (salaried employees, government, universities, military, airlines, banks etc). These earlier funds were designed to safeguard the interests of employers in particular because employers bore the risk of delivering a predetermined payout (defined benefit). That liability no longer exists for employers. Moreover, the owners of present day funds bear no financial risk[10]. It is the members who suffer directly from fund inefficiency, and ultimately the taxpayer. Neither the member nor the taxpayer is represented directly in the myriad-fund model.

Defined benefit funds had their own peculiarities, dictated mostly by workforce management. But today's funds have little of that role e.g. attracting and retaining staff. Job-seekers today don't rate an employer according to a super fund. The arguments for steering Australians' savings into this transplanted fund structure reduce to assertion that trustee board members will protect the interests of all members[11]. The more one digs the more contradiction and doubt emerges on that issue.

A serious question arises. Why was this myriad-funds model , advocated by the unions and supported by the government, chosen as the model for a compulsory universal retirement system, without public consultation, when other systems able to focus risk where it is borne, at much less cost, were available? That the entire subject, never mind the model selected, was fraught with hazard for taxpayers and individuals would have been clear from the experience of the Hancock Committee, tabled in 1976[12]. No answer can be found in the publicly available records of the Treasury, or elsewhere[13]. Australia's extraordinary myriad-funds system appears to have emerged without examination of options.

Political Realities Preceding

The myriad-fund model materialised out of industrial negotiations during the 1980s[14]. It is well documented that the trade union movement had been pursuing improved retirement for its members. That became important in the Hawke government's wages and prices Accord. The notion of myriad- funds was given oxygen in the 1985 National Wage Case, when the Australian Council of Trade Unions (ACTU), as part of its National Wage Case claim to the Conciliation and Arbitration Commission, sought a 3 per cent super contribution by employers to be paid into an industry fund. That was supported by the government and approved by the Commission.

But the Government's 1989 policy statement, '*Better Incomes: Retirement Income Policy into the Next Century*'[15] said nothing about compulsion – it was based on *twin pillars* of the age pension and private super, specifically rejecting the option of a National Superannuation Scheme. The super policy centred upon encouraging voluntary super savings:

> *People in employment cannot be expected to save for retirement unless there are adequate incentives to make it worthwhile.… It is just as important, however, that income in retirement is not taxed so heavily as to discourage self provision by those now in employment and those already retired.*

Mention was made of the industrial award- based super as another avenue which would evolve over time as economic conditions permitted:

> *The 3 per cent employer contributions by themselves will not provide an adequate retirement income. The Federal Government supports the principle of the extension of award based superannuation in the context of future wages policy because it increases retirement savings and extends the benefits of super to ordinary workers.*

The timetable shown for this twin pillars policy went out to 1995 without any sign of increasing employer contributions in the awards, much less universal compulsion. Essentially, the Government would underwrite the retirement system only to the extent of the publicly funded age pension and tax concessions on fund earnings. No rationale for operating through myriad funds is to be found, apart from the acknowledging that award super happens to exist.

Keating's Compulsion

Paul Keating says[16] he

> *made a pledge to Bill Kelty and the ACTU .. that I would legislate for compulsory superannuation after the Industrial Relations Commission had knocked back the second 3 per cent superannuation deal, and that I would take the superannuation to 12 per cent compulsorily .*

How Keating made good on that promise, despite the government's recently proclaimed policy, has been spelt out by the man himself[17], citing a speech he made as a backbencher in mid-1991 (during the tussle for Hawke's Prime Ministership) which

> *remains the key speech in the forward design of the Australian superannuation system. Before that time, owing to the piecemeal negotiated nature of award superannuation, it was not possible to pull all the threads together.. the proposed jump to a fully mandated universal scheme made such a speech conceivable.*

Keating is quite open that his '*jump*' from the twin pillars policy to compulsory national super, which he pursued from the backbench, was caught up in the political struggle for leadership[18]:

> *As it turned out, the speech was widely reported, sharply lifting the bar on Bob Hawke and the government during the budget process. Hawke could feel his grip on the Prime Ministership getting a good shake and he did not want the ACTU battalions siding with me.*

Thus it came about in 1991, the Hawke government announced that a new system known as the Superannuation Guarantee (SG), would require employers to make contributions to funds on behalf of their employees. Another pillar, with ramifications of enormous complexity, had been inserted between the existing two. Its imposition occurred once the government '*registered the fierceness of the ACTU's warnings*'.

A Commercial Dimension?

This new retirement scheme was presented as benefitting working Australians. But valid questions arise. Were others already alert to another potential? Through the new second pillar? Several unions had experienced the workings of funds, obtaining practical insight into the profitabilty of financial services[19]. Could it be that the prospect of financial services offering an income avenue for unions was a factor in the myriad-funds approach? Indeed, was that the extent of any appraisal of operational options for the nation's new super system[20].

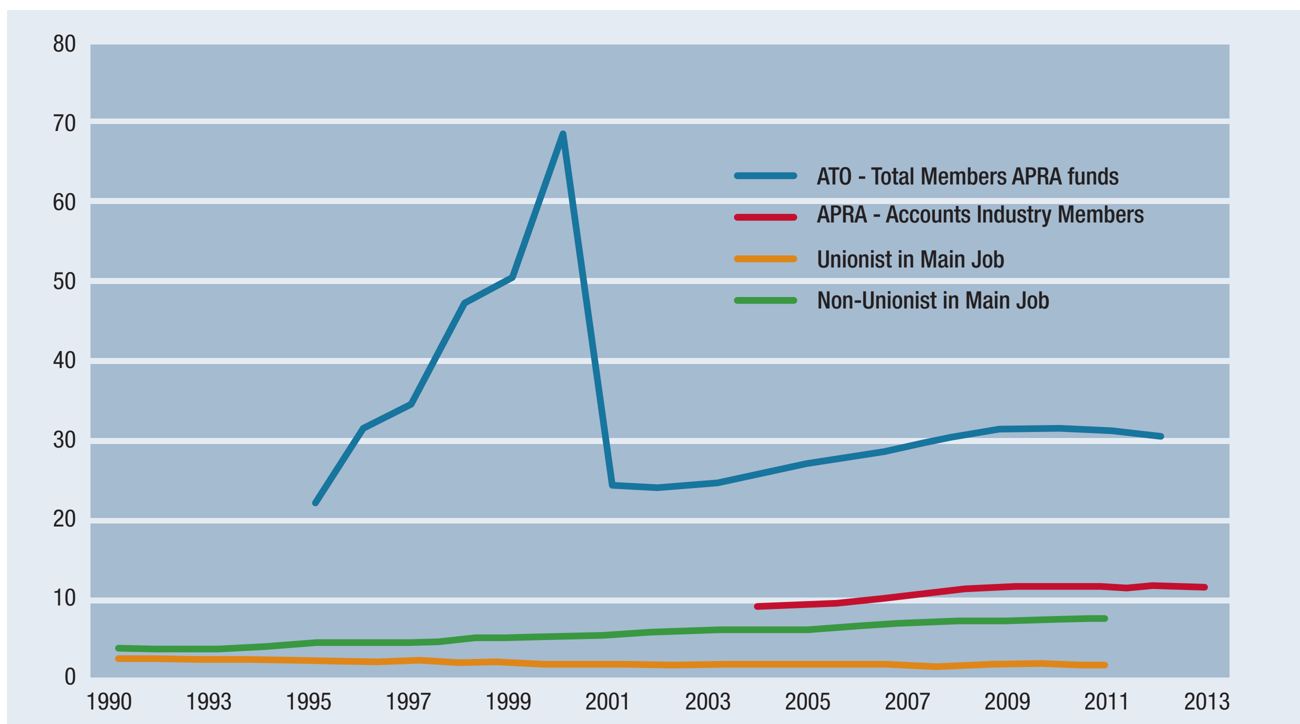
The unions were beset with existential worry during the formative period of super. Bill Kelty[21], a key union figure negotiating the Accord, later reflected in 2012:

> *I want to say a few things about the future. I don't think it would be appropriate to get up and talk about the role of unions without recognising that there has been a decline. It would be a silly thing for me to do, to ignore the decline in unionism in relative terms........ But we sat there in 1986 and we said unless you can change and get into growth areas, then we are going to decline. And we got it more or less right, more or less right.*

Decline in union membership did keep on, for the next three decades. And change the unions did; not just getting into a growth area but creating one. Accompanying falling union membership emerged an extraordinary ascendancy of membership in industry super funds.

The nonsense of the myriad-fund model soon surfaced - as industry funds were created, put into operation, then removed, and absorbed in a consolidation initiated by industry funds themselves. Australian Tax Office (ATO) data show that by 1996 the number of industry funds, most freshly minted, had reached 430. The ATO registered 70 million accounts in industry funds in 2000 – more than ten times the working population. It took more than a decade for a regulator to provide an estimate of industry fund accounts/members – APRA reported[22] more than 7 million accounts, about the same as the work force.

Fund's Members and Union Decline (millions)



This chart shows the chaotic administration after SG was introduced, and decline in union membership to relative obscurity. From 1992 to 2011, the proportion of those who were trade union members in their main job fell from 43% to 18% for males, and 35% to 18% for females. If unions were financially struggling in 1986, why are they not parlously poor now? Publicly, they have never appeared more prosperous.

Viewed strategically, the union movement does not add up. It's as if substantial income unrelated to union membership has become available. Of course, the union movement has a track record in commerce. As a unionist, Bob Hawke felt that '*money is the sinew of power*' and promoted commercial ventures in the 1970s. Blanche D'Alpuget in her 1980 biography of Hawke[23] writes:

> *By the time Hawke was preparing to leave the ACTU it was cash flow from ACTU- Jetset and ACTU-Solo that was keeping the ACTU afloat.*

These ACTU enterprises failed subsequently. There were other business forays. But by 1986, according to Kelty, this was not enough. Yet in 2006, the ACTU was no longer impecunious, spending $30 million on a public political campaign.[24]

Australia's super could have delivered a desperately needed commercial lifeline to the unions. This conclusion is stiffened by the view of then Minister for Finance, Peter Walsh, who took issue with universal super[25]:

> *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.*

The pot of gold was tapped promptly by an array of service providers, some patronised almost exclusively by industry super funds[26]. The fund model sanctioned by Hawke/Keating governments bestowed upon unions the effective control of trustee boards and thereby a strong say in selection of service providers (eg in administration, asset consulting, custody, funds management). Service entities were set up from the earliest days, owned by various industry funds jointly, which appear to have enjoyed unchallengeable access to industry funds' patronage. They, in turn patronise yet more services. Anywhere within these opaque, layered services lie opportunities for revenue to be directed to private destinations, legitimately but without transparency or evidence of value-for-money[27].

As forecast by Peter Walsh, funds' expenses have dragged down Australians' savings, while enrichment vistas blossomed for others. None of this is to imply any intent to exploit Australians through super. It is conceivable that all involved saw the myriad fund approach as valid, because that's all they knew. And the unions recognised a welcome business opportunity as a side-benefit of their better retirement agenda. It was not beholden upon the unions to assess cost-benefit of structural options for the nation's universal super experiment. Nor was it up to the Conciliation and Arbitration commission. Treasury as the forefront economic policy department typically has that role.[28]

It is not clear that, apart from grumblings of a Finance Minister (hardly a rare and arresting event), a proper shot was ever fired on behalf of taxpayers and individuals.

Does it matter whether unions saw another dimension in super, enabling their financial decline to be reversed? The purpose of touching upon the political genesis, and uncovering apparent failure to address the public interest in implementation, is to show how frail the foundations of Australia's super are - thereby recasting debate towards a bigger map which opens up hitherto unrecognised routes to efficiency. The incessant calls for change to super since its inception thus are seen to be sadly suboptimal, as the myriad-fund model is risibly inferior to practical, simpler models.

Funds Multiply by Choice

The political opposition at the time claimed that an unspoken dimension existed in the Accord. ASFA researcher Ross Clare observed[29]:

> *The then Opposition also was not entirely enthused by the superannuation developments, partly because this is what Oppositions do, and partly because of more fundamental concerns with the arrangements. For instance, 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[30]. Alexander Downer stated that the superannuation deal was 'one of the most underrated threats to the future stability of the Australian economy, and indeed to the capitalist system' (Hansard, H of R, Vol 145 1985:3571).*

But that indignation soon vapourised, turning into embrace. The Howard government decided that the nation needed even more super funds, of the retail variety[30]. The traditional

occupiers of the high-ground of the nation's financial commerce eventually realised the profit potential of super. And that they were hindered in its pursuit, because the myriad-fund model had limits on which funds could take the SG, and on mobility between funds. In 1995 Shadow Treasurer Peter Costello called for employee choice of funds[31].

In 1997 the Wallis Financial System Inquiry, established by Treasurer Costello, advocated super choice. In submissions and evidence to the 1998 Senate Select Committee inquiry into choice, the main supporters were the Australian Bankers' Association, the Investment and Financial Services Association, and firms such as the Commonwealth Bank etc. But it was not until 2004 that legislation was passed which allowed portability of money between accounts and employee choice of fund.[32]

By then, corporate rearrangements had become feverish. Big banks were in catch-up mode. They acquired asset managers and distribution channels (eg financial advisers), at astonishing premia. These acquisitions were then fused around 'wraps' and 'platforms' amidst a frenzy of product development. This huge capital investment created another super funds edifice, hastily again.

The government's rationale was that more funds would lead to increased competition and lower fees[33]. Five years later another inquiry would find this to be false.

The Costello legacy on retirement has been mixed. Beyond the boost to inefficiency, product purveyors and financial advice arms were found engaging in execrable behaviour. This is unlikely ever to reach a nadir, just acquire some subtlety. Agency risk is overt through the retail sector – the mindset has to pursue profit, and has displayed poor sense of boundary. No need to postulate a parallel agenda here.

Distribution of Costs

The myriad funds offer a familiar working medium for a duopoly of industry and retail funds, for impenetrable financial flows, corporate marketing, well-resourced lobby groups, and costly regulators.

Each fund has a board, staff to manage financial flows and investments, members and marketing, service providers (investment managers, consultants of many persuasions) and digital systems. The mix differs, and some common systems exist. Rainmaker[34] says revenue is around $30 bn (including SMSF).

The duopolists have differences of opinion. Accusations of excessive profit-seeking and related-party conflicts have been exchanged. Public campaigns by unions misrepresent the industry funds as member-owned[35]. However, both sides will coalesce to warn governments against 'tinkering' to assist budgetary reform. Each has representative bodies which prosper around these affinities and differences, well-resourced and proactive.[36] These are the front line defences of the myriad-funds machine.

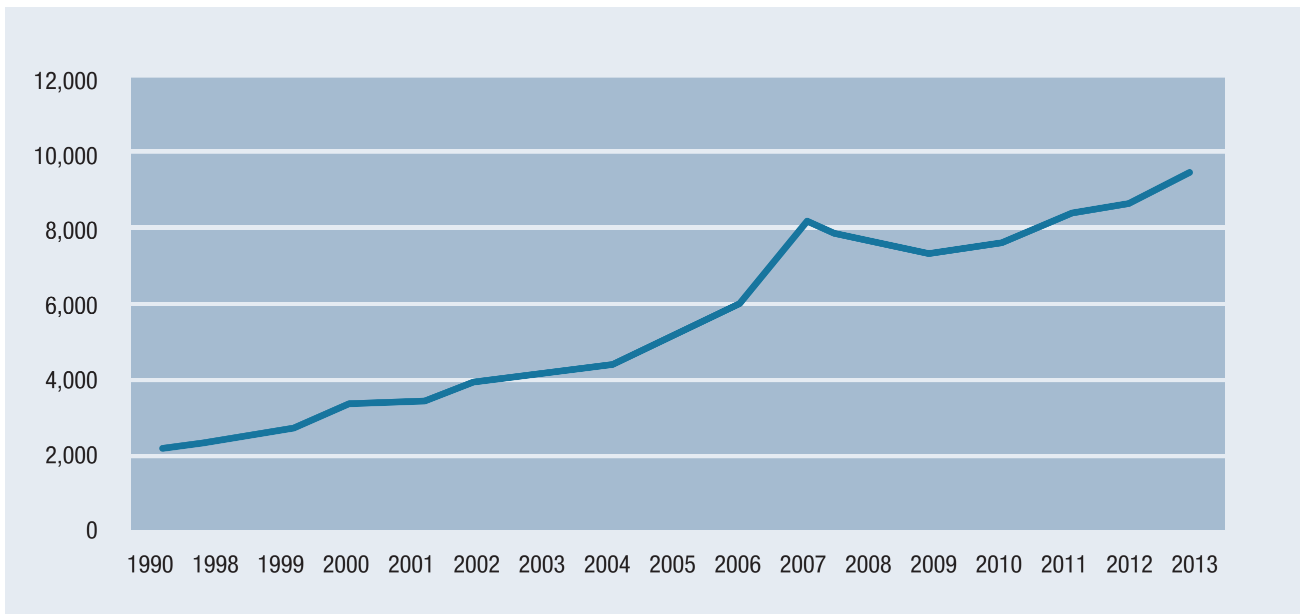
Implacable Cost Growth

The growth in value of assets held by funds is constantly remarked upon, reaching more than two trillion dollars now. Operating expenses have grown also, largely under the public radar, without heed to scale.

Net revenue of Superannuation Industry ($ billions)

	Industry	Retail	SMSF	Total
Trustee Offices & Admin	2.6	5	2.6	10.2
Investment Managers	4.4	2.7	0.6	7.7
Advisers	0	3.9	0.2	4.1
Group Insurers	3.4	3.7		7.1
Asset Consultants	0.3	0.2		0.5
Custodians	0.4	0.2		0.5
Total	11	15.6	3.4	30

APRA Fund's Operating Expenses ($ millions)



APRA has estimated that operating expenses for its funds totalled $12.6 bn in 2015. The upward trend has long been evident, and long unacted upon. A review of '*Australia's Future Tax System*'[37] (Henry review) of the Rudd government, expressed satisfaction with the structure of the retirement system. It showed no awareness of this cost drag, while 'enhancements' were recommended. Another review of the super system itself[38] (Cooper), was requested to assess efficiency[39]. While prescribing intervention on the financial product side, Cooper appeared oblivious to systemic waste in the myriad funds structure. As a result, the government announced reforms in 2010, accepting that:

> *Fees in superannuation are too high; Choice of fund …has failed to deliver a 'competitive market'*

The response to failure of competition was to impose a fix called Mysuper, a low-cost default investment applied to the 80% of employees deemed to be disengaged with their fund. However, the systemic excesses remained unchallenged.

In 2013, government set up an '*Inquiry into the Financial System*'[40] known as the Murray inquiry. It reported a year later. The findings were accepted. Missing, once again, was any look at the delivery of super – yet another sub-optimal response preserving the waste of myriad-funds.

Review after review has used the same little map.

Letting Australians Choose

Given this arrant inefficiency of super, the question of why citizens should be compelled to pay into it comes to the fore, again. Regardless of political philosophy, strong reasons should pertain for a government to intervene in freedom to spend one's hard-earned. Many reasons have been advanced, all of which are shaky now.

The government pointed to high inflation and unemployment in the 1980's to justify pay rises being deferred into a super fund. Regardless of the merits then, this view no longer has weight. Indeed, the opposite seems apposite – inflation is under control, verging on deflation now, while pay rises elude many. To the extent that the inflation argument was relevant in 1991, the reverse applies now.

It was said also, from many sources, that demographic change requires downward pressure to be put on age pension eligibility. That is, an ageing population will make the age pension unaffordable for future governments, unless something is done. But that issue was specifically addressed and rejected in the Government's 1989 retirement policy statement, not long prior to compulsion being imposed:

> *Although the ageing of the population will be most rapid after about 2011, there is a clear need for recognition now by everyone of the added demands that this change will bring to bear. Taxation revenue will be sufficient to support those in the community – including the aged- needing assistance. However, it will not be sufficient on its own to provide substantially higher retirement incomes. That will require efforts by those now in the workforce- those now in their 30s and 40s – to increase their savings for retirement years.*

Analysis published in 2005 using modelling from Treasury[41] showed that, on average, the effect of compulsory SG on future age pension outlays is expected to be transient and

marginal, and would be influenced most by work factors eg early or later retirement.

That result was confirmed by more modelling[42] revealing that shifting eligibility for the age pension out to 67 years has by far the greatest influence on age pension outlays (much greater, for example, than increasing SG to 15%). That age reform is now underway[43]. So, again, the original reasoning for compulsion falls way.

Another reason put for compulsion is that people would not participate in super voluntarily. Maybe that reluctance is for good reason. People will sense a mixture of reasons not to contribute to shabby offerings. Principally they are confused about the end-product[44] ie what benefit to expect and the risks in intuitive terms? The basic product information is simply missing.

Which brings us to the argument that super provides national savings important in a wider economic context. That is debatable; but what is not contestable is that super is inefficient for that purpose.

And finally, it is said that because compulsion is what other nations do, so should we. That belief can be found alongside self-congratulatory enthusiasm about how special and different our myriad-funds are.

Apart from this collapse of the original claims for compulsion, a singular reason exists why it was irresponsible to oblige citizens to be part of super in the first place. The government had no concept of the risk in the deal it was pushing at people (and taxpayers) in 1991. In building the second pillar upon financial markets while tying that to the first pillar a significant risk has been created that both pillars will crumble. The risk run by individuals and taxpayers was not assessed at the outset. This ignorance persists to this day.

From what is publicly available of Treasury's thinking, it appears Treasury itself became aware of this systemic frailty and chose to avoid it. Treasury's own modelling of super since compulsion[45] demonstrates that the significant risk was identified and consciously set aside[46].

So, compulsion arose out of weak policymaking. Now, it is protected by a well-funded, self-satisfied super industry which finds it bothersome to think about the stakeholder's perspectives. The super industry has operated under commercial and investment principles of the wealth management industry without curiosity about the uniqueness of super[47], The industry believes the super product to be an investment medium able to absorb individuals' contributions at a fee. Individuals believe the product to be a retirement income which is embedded in long term market risk about which they are justifiably confused. The two products have always been estranged[48].

No reason exists now to maintain compulsory super. New reasons demand the reverse. Citizens should be offended that their income and the nation's fiscal prospects have been so ignorantly dealt with. It is not valid[49] to argue that it is in the public interest to continue depriving Australians of their income.

The benefits of income discretion are obvious. Individuals take a significant income boost (say 10%), which will stimulate an economy finding it difficult to deliver pay rises. Large gains in tax revenue can be expected (indicatively $20bn annually) for national balance sheet repair[50].

And the volatility of fiscal outcomes will be reduced. Federal budget setting has become increasingly risky as revenue is exposed to markets of one sort or another.

Philosophically, a voluntary approach to super saving differs little from the minority recommendation of K.J. Hedley in the Hancock report of 1976 , advocating a non-contributory flat rate universal pension, a means tested supplement and greater encouragement of voluntary savings through super.

John Howard, as Malcolm Fraser's Treasurer, rejected the proposals of the Hancock Commission[51] to establish a compulsory national super scheme citing Hedley's philosophy, in 1979:

> *the Government believes that the freedom of choice individuals currently enjoy in arranging their own affairs should be retained.*

Which was avoiding the wider question, as Hedley also offered ways of improving retirement voluntarily. Howard's attitude to the compulsory myriad-fund model in subsequent years went from indignation while in opposition, to embrace as Prime Minister.

Rationalising Retirement Policy

Assuming that compulsion is abolished there remains a large question mark over super. The first step in fixing our retirement system will be to remove the obfuscation about whose money is being paid as SG into the funds. As the Henry review[52] recommended six years ago:

> *Employer superannuation contributions should be treated as income in the hands of the individual, and taxed at marginal personal income tax rates.*

It is then for Government to allocate additional revenue across its priorities. Serious options open up. The obvious one is to cease SG super as we know it, and to improve retirement directly from general revenue. For example, the age pension could be increased. As explained earlier, considering only revenue gain from the income tax concession, age pension could be increased by about 35%[53],

providing a higher income reliably in retirement for the sub-median income worker than through super - starkly demonstrating the opportunity cost of that concession. Because the age pension is not directly linked to financial markets, retirement income is bettered sustainably, where it is most needed.

Many Australians will still want to save voluntarily for their retirement. Government could provide a concessional market-based structure, built for efficiency, resembling only in the broadest terms the approach inflicted upon Australians in 1992.

Whether the underpinning of age pension is united with a new super is a critical question, previously skated over in the haste to deploy universal super. Keating's policy jeopardises the sustainability of the age pension by binding it to the market vulnerability of super, thereby dooming overall retirement policy to significant risk of eventual failure. Risk-based analysis will show that a voluntary super should be separated from the age pension.

A New Super

In considering options for an efficient super, a logical place to begin is with a single operating agency. This is not new. Retirement structures along these lines already function well elsewhere. Contributions would be collected from individuals (not the employer), ascribed to an individual's account, then processed according to the scheme's parameters (tax, exceptions etc). No more confusion about account numbers – each citizen would have one account only (the TFN perhaps). Benefits are paid by the agency as they fall due, determined by factors similar to now.

Immediately, efficiency steps up. Replication of trustee boards, fund administrations and investment functions can be dispensed with. Marketing costs are decimated. Divisive lobby groups are redundant. Investment services can be put to competitive test with probity. Related-party dealing becomes controllable. Civilised transparency exists. Regulators can be downsized and focus better.

Creating an agency similar to the Future Fund, would suffice[54]. If that approach were applied to the current Second Pillar, contributors could expect at least an extra $5 bn yearly in their accounts[55].

We have precedence to draw upon, to show the efficiencies on offer. In 2014, the Future Fund managed around $100 bn with reported cost of $0.37 bn[56]. The largest super fund, AustralianSuper, managed $65bn at cost of $0.47 bn[57]. That is, the industry fund manages much less money but costs much more. Of course, Australian Super has a large cost for administering its members, as well as investment costs. That is the point. In today's super this overhead is multiplied many times across the myriad funds. With a single agency the cost is incurred once (larger but offering order-of-magnitude savings). The same applies to the in-house investment overhead in myriad funds.

The extent of that efficiency gain depends on how the agency/fund is fleshed out. Examples exist elsewhere which offer valuable lessons. Sweden[58] built a new system, commencing in 1994, with attributes which are familiar: '*privately managed individual financial accounts, where the individual him/herself makes his/her own investment decisions within a broad spectrum of investment alternatives*'.

What is not familiar is Sweden's '*focus on designing a structure that minimizes the overall costs of administration*'.

> *This review is not the place to design an efficient super system for Australia. Many of Sweden's parameters are different. But its underlying drive for efficiency at the outset means that much experience is available. An independent review by the OECD in 2012 observed[59] :Sweden's occupational defined contribution pension system is lauded internationally for being a very low-cost system, so there may be areas where good practices from the occupational pension system could be shared.*

Redesign of super like this will be a serious project, taking time to reach its potential. A single agency is only one option. Another is to refine and simplify our SMSF process, touched upon later.

Aligning Responsibility

Adopting an efficient structure for super is essential but not sufficient. Corrosion of any model is inevitable without clarity on responsibility, risks and control. Governance of the current system is flawed. The two parties with most at stake, taxpayers and individual savers, have no direct control.

The taxpayer is the ultimate guarantor of Keating's better retirement income, because when investment expectations fall short the taxpayer picks up the shortfall, through unplanned age pension payouts. As well, the taxpayer sacrifices major revenues along the way.

If government wishes to persist with concessions to improve retirement, then control of a new agency belongs with the taxpayer and individuals contributing- as is the case with SMSFs.

Currently control resides with tangential interests, at best. Employers have no claim to be involved. Finance houses are overtly conflicted. Unions can be perceived as conflicted, and they do not represent the great majority of Australians. The unions' claim that surveys show people are agreeable to being represented by unions is contestable, even if relevant. An independent survey offering better choices such as outlined here would deliver a different result.

A new agency would clean out the practice of money being allocated to investment managers with whom linkage exists (and when it is not clear that no linkage exists). Investment managers operating in the system would be selected through a bidding process where the authority had the role of optimizing purchaser, on the basis that no connection exists, real or ambiguous, between the authority and the investment service providers.

Against this approach, it has been argued that adequate measures are in place to protect the taxpayer and individual - legislatively through the SIS Act and oversight by regulators APRA and ASIC. The trail of misery inflicted on savers, recently exposed by Parliament rather than regulators, is testament to the inadequacy there.

More recently, prominent industry fund figures have admitted the legislative structures have fallen short. Ian Silk, Chief Executive, AustralianSuper, proclaiming that the industry needed a '*man on the moon moment*'[60], said:

> *Isn't it enough for us to do what we are required to do by our Boards, by the regulators, by the Government. No, it's not. Not even close. We need a grand ambition because that's the responsibility that was given to us over 20 years ago. Parliament - and by extension the people of Australia – outsourced the operation of the superannuation system to us.*
>
> *Our industry needs to change. Not because others expect or demand it of us, but because we should expect and demand it of ourselves. We can, and should, be doing better.*

The rub is that this long-time executive is speaking about shortcomings which are trifling relative to super's congenital flaw.

Industry funds have at last conceded that its trustees fall short, announcing a review of funds' governance to be conducted by Bernie Fraser[61]:

> *Industry Super Australia (ISA) and Australian Institute of Superannuation Trustees (AIST) have asked Bernie Fraser to lead a Review of governance arrangements in respect of not-for-profit superannuation funds, and to propose a best practice Governance Code for such funds.*

These realisations have come only under duress, decades after funds first became infused with peoples' compulsory savings.

Practical Transition for New Super

It is likely that those wanting to save voluntarily will be motivated, and so embrace the challenges of long term planning. Thus, a new voluntary super system could be a simplification of the existing self-managed regime. The low cost SMSF available online now would be a helpful start point. A reshaping of SMSF could be made available within a short time frame.

A separate agency along the lines of Sweden, say, would take longer to bed down, and probably be less efficient than a new SMSF route. An assessment of cost, benefits and practicalities of operational options is obviously a precursor. Because nothing is really new here, moving to a new efficient super is manageable. The savings for individuals compared to myriad funds should be upwards of $5bn yearly.

Australians will readily sum up their options – a substantial and dependable improvement in their retirement prospects should they continue in a new super, versus their other uses for extra income (eg paying off the HECS debt).

Assuming that tax concessions for the new super can be pitched sweetly, the benefits from reduced expenses for savers are so apparent that much of the hard work of transition from existing funds will be done by the market.

There will be complexities, ranging from systems development to illiquid investments. But the benefits in prospect require the transition to be tackled with tenacity. The more goodwill offered by existing funds the more readily we can move to a future which unambiguously serves the public interest.

There will be legislative and timing issues, of course.

Purpose of Super

We are at another of those points in the history of retirement policy when debate turns to purpose (resurrected in Murray's report). Advocates of being purposeful about purpose imply that all will be well if the nation can just agree upon a purpose for super ie that boundaries will be set and hard decisions will somehow soften. Yet Keating was quite explicit with the purpose of his super - to improve retirement income beyond the age pension. Why change it? Changing it will not avoid the reality that, because revenue is always limited, retirement policy has to set priorities eg to re-assess the age pension itself and to ask how much improvement is enough, and in what way? That's the hard bit - unavoidable and it won't ever get softer.

Which brings us to ask how much enticement should be offered by the taxpayer to save through a new super - the old chestnut which opens up 'fairness'. Where the line might be drawn ranges from basic 'poverty alleviation' through to more ambitious targets, such as a proportion of final working income. Here the notion of 'adequacy' finds favour amongst those who would see the State judge a target level of retirement income and commit taxpayers to it.

It is not clear why taxpayers' should ever shoulder anything much beyond poverty alleviation, particularly at this time of daunting budget repair. Those who can least afford to save

should be most encouraged, because that is where incremental benefits are greatest, for individual and taxpayer. And it is obvious that limits have to be found. Arthur Seldon[62] observed:

> *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.*

The Henry recommendation, that concessional tax rates be replaced by a flat-rate refundable offset, would be a welcome display of budgetary responsibility with super, if pitched to enhance the prospects of those more likely to rely on the age pension.

Yet More Compulsion

Joining the debate about purpose is a group of 'public thought leaders' in a 'Committee for Sustainable Retirement Incomes'. Its rhetoric centres on security and sustainability of retirement incomes. Unfortunately this is average stuff, by definition - conclusions depend on risky financial markets, but mainstream modelling of super and retirement is founded on average asset returns[63]. So, it is an even-money chance that its views are optimistic. We observed in this Journal previously[64]:

> *The super adequacy debate can, and should, be put on a confident footing. How can it be acceptable to proceed with this debate, concerning over more than a trillion dollars of assets, when every finding has to be qualified as having 50% chance of being an overstatement?*

Glib pursuit of security and sustainability can have harmful consequences. For example, it leads to propositions[65] such as:

> *compulsion might eventually be needed to direct a proportion of accumulated savings into annuities or deferred annuities.*

This is said to be required because 'risk cannot be managed by individuals but requires pooling of funds'. Our research shows that pooling of funds is no guarantee; indeed failure of private annuity providers is not a matter of 'if' but 'when', and/or appalling value. It is the taxpayer who ultimately picks up the pieces.

Policy makers and wonks alike have pontificated habitually on the inability of Australians to 'engage' with super. At the same time they remain contentedly ignorant of super's stochastic essence. Only when thought leaders advance to the point of themselves engaging by appreciating the risks in our retirement system, can a credible debate about systemic options emerge.

Thus, a pre-requisite for progress in retirement policy is for all interested parties to take the elementary step of comprehending the influence of long term asset behaviour in generating incomes from super.

Conclusion

The nation has a super albatross around its neck. The opportunity cost of the core of the nation's super system – compulsory SG combined with concessional tax on contributions – is high. And that inefficiency abounds throughout the rest of the system with its myriad funds and uncertain saving outcomes.

Explaining the improbable waste in the super system requires its political origins to be revisited. Super arose out of a protracted policy process known as the Accord. Here super was cobbled together piecemeal, driven by unremitting union demands. Its operational structure was implemented uninformed about efficiency and risk. Unproductive edifices materialised, built upon myriad funds which serve well only those who service them.

The result is great cost to individuals, particularly the lesser half of income earners, and to taxpayers, relative to sensible, obvious structures, used successfully elsewhere. Today, the super industry takes out nearly as much as taxpayers subsidise the system - around $30bn a year. The latest fixes by reviewers have marginal merit, treating symptoms only, thus entrenching the affliction.

No cause exists sufficiently for Government to force Australians into this policy travesty. Requiring citizens to continue in a risky system, of no clear net benefit, while its hazards remain unassessed is reckless.

Income discretion should be returned to the employed, allowing their pay rise of 10% to be unlocked.

A new and truly world-class retirement system is attainable. Super as we know it will evanesce through its failings, and as inducement is implemented for voluntary savings efficiently and self-reliantly.

Endnotes

1. Once a scientist, then two decades in defence (resource allocation and policy analysis) in Australia and US; then two decades in super and risk research. Contact riskres@gmail.com
2. Also a scientist, then operations research, defence analysis and researching strategic risk of retirement.
3. Explaining the centrality of 'context' – *Applied Operations Research/Systems Analysis in Hierarchical Decision-Making*, George Chacko, North Holland/American Elsevier, 1976.
4. *How Do We Continue to Be a World Class System?* , Pauline Vamos, CEO of ASFA, November 2015
5. Data and assumptions from the Treasury RIMHYPO model for retirement incomes http://taxreview.treasury.gov.au/content/StrategicPaper.aspx?doc=html/Publications/Papers/Retirement_Income_Strategic_Issues_Paper/Appendix_F.htm
6. Setting aside the question of whether the end-savings are taken as a lump sum
7. Present value depends on arbitrary discounting and has intuitive limitations
8. The current single age pension would increase from $22k to $30k. The median worker's $32k SG retirement income is only slightly higher than this. So most lower income workers would

do better in retirement without the SG and its uncertain savings outcome. The current couples age pension would increase from $34k to $46k.

9. There are plenty more funds (smaller) as well as self-managed funds (different because the members generally own them, control them and bear the risk of their own decisions).

10. Though an individual trustee might or might not have a personal exposure

11. A legislated form of protection through the Superannuation Industry Supervision (SIS) Act has proved to be incidental in driving focus on members' interests.

12. *Final Report of the National Superannuation Committee of Inquiry*,1976

13. Only after the imposition of the Superannuation Guarantee (SG) did Treasury get serious about modelling. The Senate Select Committee on Superannuation in April 1992 called for better modelling of the long term implications of the SG. In response, estimates of the long term impact of the SGC on age pension outlays and national saving, generated using the National Mutual Retirement Income Policy Model (RIP), were obtained.(*Retirement Income and Policy Modelling in Australia*,, Gallagher and Preston, Treasury paper, 1993)

14. Treasury has produced a valuable history of super: *Towards higher retirement incomes for Australians: a history of the Australian retirement income system since Federation*

15. Better Incomes: Retirement Income Policy into the Next Century, Minister for Social Security, Brian Howe,1989

16. Keating, Kerry O'Brien, Allen and Unwin, 2015.

17. *The Story of Modern Superannuation*, P J Keating, Australian Pensions and Investment Summit, October 2007

18. Ibid, Bill Kelty and Iain Ross made clear to Bob Hawke and to Treasurer John Kerin that if the government walked away from compulsory superannuation, to at least 6 per cent of wages, the ACTU would no longer operate general wages policy within the Accord.

19. For example, Greg Sword's reported comment on the LUCR fund around 1979: *When we appeared on the scene we put all the money into the share market. We got a huge earning rate compared to commercial funds*

20. The Senate inquiry of 1991 had a support paper on *Retirement Income Arrangements in Twenty One Countries* – a functional comparison only; no mention of operations, costs, efficiency.

21. Bill Kelty, Address to ACTU Congress Dinner, 2012. Kelty was Secretary of the ACTU from 1983 to 2000.

22. Official data from APRA on industry fund membership commence in 2004

23. D'Alpuget, Blanche, *Robert J Hawke: A Biography*, Lansdowne Press, Melbourne, 1982.

24. Speech to National Press Club, Brian Loughnane 19 December 2007 *The ACTU spent over $14 million on television advertising in the twelve months before election day. This was more than either of the two major parties spent on television in the campaign. If disclosure of campaign spending is to mean anything in this country, the ACTU should be required to publish a report setting out details of how the $30 million it allocated to the campaign was spent.*

25. *Confessions of a Failed Finance Minister*, Peter Walsh Random House,1995, p243

26. Industry funds have long patronised certain investment management, administration and asset consulting firms. That their trustees can be content in this position is the real governance / transparency issue in super. It would probably take a royal commission to penetrate the labyrinth of financial flow and corporate restructurings around industry funds and their service providers.

27. Financial statements of funds published by APRA are no help. The 'transparencies' offered are too gross to give insight into who receives what, why and the results. A shroud is wrapped around the financial flux of billions of citizens' savings in the super industry.

28. Treasury is unable to provide evidence through FOI of any assessment of options from 1985-1992 covering efficiency for a new super system. A request for *any* evidence of cost-benefit of options for super was deemed to be 'a substantial and unreasonable diversion of departmental resources'.

29. *Choice of fund – myths and realities for members and markets*, Ross Clare, ASFA Research Centre 2003

30. As noted later, Howard had his chance to build an efficient super structure when Treasurer in 1979, but rejected the opportunity.

31. Address to ASFA, November, 1995.

32. From 1 July 2005, changes to the law mean that many Australian employees could choose the fund their employer's superannuation guarantee contributions are paid into. But the battle goes on to this day, to enable employers to do similarly.

33. For those interested in this debate a nice summary can be found in *Choice of fund – myths and realities for members and markets*, Ross Clare, ASFA Research Centre 2003

34. Superannuation Revenue Report 2015, prepared by Rainmaker for Industry Super Australia (ISA)

35. For example, Ged Kearney opinion writing *Tragedy if member-owned super follows the fate of mutual*, Australian Financial Review, October 2015. Kearney presides over joint owner of AustralianSuper. Trustee is AustralianSuper Pty Ltd which has only two shareholders - the Australian Industry Group and the Australian Council of Trade Unions.

36. Such as the Financial Services Council (FSC), Australian Institute of Trustees (AIST), ISA and ASFA

37. http://taxreview.treasury.gov.au/content/StrategicPaper.aspx?doc=html/Publications/Papers/Retirement_Income_Strategic_Issues_Paper/index.htm

38. *Review of the Governance, Efficiency, Structure and Operation of Australia's Superannuation*, 2009, chaired by Cooper.

39. Terms of reference :*Efficiency: ensuring the most efficient operation of the superannuation system for all members, including removing unnecessary complexities from the system and ensuring, in light of its compulsory nature, that it operates in the most cost effective manner and in the best interests of members;*

40. *Inquiry into Financial Services* http://fsi.gov.au/publications/final-report/

41. *The Policy Use of the Products of the Retirement Income Modelling Task Force*, Phil Galllagher, Director RIMU Task Force, Third Colloquium of Superannuation Researchers, July 1995.

42. *Population Ageing and Age Pension Outlays*, Ann Harding et al, NATSEM, University of Canberra, 2009

43. Federal Budget measure 2014-15: The current qualification age for the Age Pension is 65 years, increasing to 67 years by 1 July 2023. This measure increases the qualifying age from 67 to 70 years. On 1 July 2025 the qualifying age will increase from 67 years by six months every two years until 1 July 2035 when the Age Pension qualifying age will reach 70. This change applies to people born after 30 June 1958 who claim Age Pension from 1 July 2025.

44. The super industry is incapable of rising above tired investment theory of money management, to comprehend, explain and exploit the stochasticity of long term asset outcomes.

45. Treasury's analysis of risk generally is naïve, relying upon sensitivity analysis. Its approach to financial market risk in super is to concentrate on the upside and ignore the downside: *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.

46. While also applying great effort to forecasting the nation's long term fiscal prospects through intergenerational projections.

47. Stimulated by the regulator ASIC- *Changing Dynamics of the Superannuation System*, David Knott, Chairman, ASFA Paper 2002. See also Pentland in Tax Policy Journal 2009

48. *Self Reliant Super and Retirement*, Mike Gilligan- available on Amazon.

49. Daniel Kahneman's Nobel prize for economics showed that groups having adopted a set of beliefs it is nigh on impossible for them to be changed from within. The money management sector in the US provided the evidence. Australia's super industry has the same 'illusion of validity'.

50. *Tax Expenditures Statement 2015*, January 2016 – shows expected gains to revenue from discontinuing tax concessions. Assuming linearity and an indicative drop of 50% in annual super savings the revenue gain is about $15bn

51. In 1973, The Whitlam government established the National Superannuation Committee of Inquiry under the Chairmanship of Keith Hancock.

52. *Australia's Future Tax System*, May 2010, http:// taxreview.treasury.gov.au/Content/Content. aspx?doc=html/home.htm

53. TES C3 has revenue gain of $15.6 bn in 2015-16 from removing concession on SG.

54. The Future Fund was established in May 2006 as a sovereign wealth fund to help Australia prepare for the ageing of the population and promote intergenerational equity for future Australians. Again, a familiar mechanism, said to have been initiated by a Treasurer with a spendthrift Prime Minister when federal revenue was flush.

55. Of the $12.6 bn in operating costs in 2015, $4bn of insurance is set aside, then savings of at least 70% on the remainder, which would increase with migration from SMSF - for discussion: *A New Pension Settlement for the Twenty-First Century*: Volume 2, Great Britain. Pensions Commission 2006

56. Future Fund, Annual Report 2014-15, *'Investing for the Benefit of Future Generations of Australians'*

57. APRA, Funds' Profiles Performance 2014

58. *Sweden's New Pension System*, Edward Palmer, Uppsala University and Head of the Research Division at the Swedish National Social Insurance Board, around 2006?.

59. *Review of the Swedish National Pension Funds*, OECD Working Papers on Finance, Insurance and Private Pensions No 17, Clara Severinson and Fiona Stewart, 2012

60. *A vision for a thriving future*, Ian Silk, ASFA 2015: KEYNOTE ONE, Wednesday, 25 November 2015

61. Bernie Fraser was Secretary of Treasury 1984-89, then appointed Governor of the Reserve Bank. Since then he has been independent trustee of several industry super funds and prominent in marketing of industry funds.

62. British economist

63. Generally assumed as Gaussian, with modelling on the mean, and risk naively assessed by arbitrary sensitivity analysis.

64. *Advanced Superannuation Fund Practice and Tax Drag,* Agnes Pentland, Tax Policy Journal, 2009 Advanced Superannuation Fund Practice and Tax Drag, Agnes Pentland, Tax Policy Journal, 2009

65. *Murray shows retirement policy could be hard work*, Andrew Podger, Oped, Australian Financial Review, 25 October 2015.