First State Super – Submission

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Retirement Income Review

A fair, adequate and affordable system

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Executive summary

Benefits of superannuation

Our view of the Australian retirement income system is that the superannuation components (Pillars 1 and 2) are delivering reliable baseline support and will be increasingly robust as SG increases to 12%. The Australian super system has already demonstrated major benefits for individuals from increased savings, including:

- Reduction in number of people who are fully dependent on the Age Pension:
  - Rice Warner estimates that over 20 years, the total proportion of those receiving the Age Pension has dropped from over 80% to under 70%,
  - This was driven by the percentage of full Age Pension recipients falling from 55% to around 42%, with part Age Pensions hovering in the 25-30% range during 2008-18,[1]
  - Superannuation accounted for 10% of the drop in old age poverty between 2000 and 2014, a trend we expect to continue,[2]
- Improved living standards for people in retirement – greater financial and personal security and well-being, improved national savings levels (which were a major topic of debate during 1990s and early 2000s), and improved insurance coverage across the community,
- Increased coverage of superannuation across the working population.

These benefits are already significant given the super system is halfway towards maturity—it will be another two decades before all workers will have had a full working life with SG of at least 9%.

Superannuation has also demonstrated the benefits of a virtuous cycle of building a pool of patient capital to invest in productive assets, often in partnership with government, which has contributed to the long run economic success of Australia.

The superannuation system works well for a majority of people, with the incentives set broadly at the right level. Having said that, there are three cohorts where the system does not work so well—women; those with broken work patterns (including indigenous workers, casuals, part-timers, people in the gig economy); and those with very low wages. There is of course overlap between these groups.

A history of continuous tinkering with superannuation has lowered consumers' confidence in the system, and while we can see room for improvement in reducing disparity between the highest and lowest income groups, we endorse a "no negative changes to superannuation" approach to policy.

Objective of the retirement income system

We support a more aspirational and positive objective for superannuation than the current drafted objective, which is minimalist, anchored to the Age Pension and barely above the poverty line.

We have the following statement on our website reflecting our purpose and culture:

> Our aim is to help every member achieve the retirement they want and deserve.

A clear positive objective is needed to overcome confusion and help policy setting formulation. An objective of adequacy accepted by the Australian community would suit this purpose.

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[1] "What is the right level of SG?" Michael Rice & Nathan Bonarius for Actuaries Institute, June 2019, Page 12

[2] "Older people now less likely to fall into poverty", Guyonne Kalb, The Conversation, December 12, 2017

Adequacy of the superannuation and retirement system

The Age Pension (Pillar 1) and compulsory super (Pillar 2) are the most important parts of the system. The Age Pension continues to be accessed by most retirees and provides an important safeguard against both income and longevity protection, and is much more than a safety net.

Our analysis shows there is potential for reassessing government support for the very highest income percentiles, while increasing support for lower income workers, women, and those with uncertain or broken work patterns.

Proving that the super system is adequate at this point when it is halfway to maturity is challenging. Members retiring now have mostly only contributed to super for half their working lives, and for the first 10 years of that period at SG rates under 9%.

Analysis of our members suggests younger workers will benefit from the system over their working lives. The legislated increase in SG to 12% will further improve adequacy for women and those with broken work patterns or non-homeownership, both rising trends. It is important the SG rate allows for these potential eventualities as it is impossible to know in your 20's how your life will unfold.

The Baby Boomer generation retiring now through to 2030 are also under-prepared, and 12% will improve their outcomes. When members draw above the minimum regulated amounts from account based pensions, reflecting actual advised member experience, we find that a 2.5 percentage point increase in SG can lift retirement incomes by around 8%.

The decrease in homeownership is concerning to us as it significantly decreases the retirement adequacy of our members.

The Objective of Superannuation—and the appropriate levels of adequacy of both superannuation and the Age Pension—strongly colour conclusions about whether the retirement system is working, whether SG rates are appropriate, and whether retirees are well served.

Measures of adequacy

We have compared replacement ratios and budget-based measures of adequacy. We prefer the use of budget-based measures (such as the ASFA Standards) as the most relevant for guiding policy settings, because they are broadly relevant for most members. Replacement ratios become meaningless for public policy setting purposes at extremes of upper and lower incomes. However, we acknowledge that replacement ratios can be more meaningful for individuals when they are trying to understand to what extent their savings, with or without the Age Pension, are sufficient to fund a standard of living in retirement that is similar to that of their working years.

People have different work patterns, incomes, lifestyles and personal goals, yet the existing debate of adequacy typically focuses on a single view. A one-size-fits-all approach to defining adequacy of retirement incomes is too simplistic.

Our view is that cohort or scenario analysis can help to improve systemic equity, and could reduce the probability of harmful scenarios for the most vulnerable:

- Assessment of adequacy should be based on cohorts to understand variances in how people save and their expectations for retirement, and the findings used to inform policy,
- Adequacy means different things to different people, according to income, expectations and lifestyle—and will vary regionally and by gender, and
- Assumptions about drawdown behaviour are important when assessing adequacy.

Committing to improving adequacy

Our view is that the super system should commit to the 12% SG rate, retain the Age Pension as a key support for middle Australia, reassess how the Age Pension supports non-homeowners, and adopt a budget standard such as the ASFA Comfortable Standard or similar to assess adequacy at the policy setting level.

Other steps which would improve adequacy and efficiency, and which would be easy to implement include:

- Remove the $450 threshold to help people with multiple jobs and casuals,
- Include contractors, self-employed etc in super,
- Pay SG on parental leave, providing additional tax incentives to support contributions on parental leave especially for women, and to encourage funds to have easy regular contribution mechanisms and nudges in place.

And for simplicity and efficiency:

- Allow adding further money to retirement incomes products (not have to start a new account based pension) to accommodate downsizer contributions and part time work in retirement,
- Remove the work test for those aged 65 and over, as the Transfer Balance Cap now provides a ceiling and limits the potential for excess saving.

Equity

Equity across the super system and adequacy of savings are closely interlinked concepts. Trust in the system and its long-term sustainability depend on public perceptions that both are being addressed and are in balance, noting that the root causes are often outside super.

As with Adequacy, cohort analysis is helpful in understanding the retirement system and should be used in developing equitable policy settings, especially for women.

The super system is supportive of full-time workers with 40 plus years of steady employment, people in high tax brackets and homeowners. However, it is not so effective for women (or any person) with long periods of career breaks and part-time work, the casualised workforce, those not defined as employees, or renters. The high cost of private rental is particularly punitive for retirees on the full Age Pension.

We therefore support measures to increase SG payments during parental leave, removing the $450 threshold and expanding the LISTO for low income earners. The government's fiscal support is most effective for lower income earners in the form of subsidies (LISTO and Age Pension). However, government support through favourable tax concessions, especially on earnings, for superannuation has historically favoured wealthier people—perhaps unwittingly. The government has recently taken steps to rebalance this by introducing the Transfer Balance Cap, lower contribution caps, and higher contribution tax rates for high income earners. These measures will remove the worst excesses but could take a decade or more to be fully effective. Our analysis suggests the Age Pension assets test has cut too deeply into the retirement incomes of middle earners. The targeting of government support should be considered and include revisions to the taper rate.

We observe that in Pillar 3, the taxation anomalies in the housing and property markets are major sources of inequity in the system—far more so than anything specific to superannuation. Homeownership can provide a reliable buffer against poverty in retirement, though changing patterns of home affordability and ownership will have implications for policy makers in future; consideration should be given to the system's current reliance on this back-stop.

Housing is a key source of inequity in the community, with younger generations and lower income groups now expecting they are priced out of the housing market for life. Distorting taxation incentives and treatments support housing and investment properties (which are especially beneficial for SMSFs), yet these have been relatively untouched in terms of resolving the drivers of house price increases.

The timing and continuity of contributions, and the level of contribution rates matter greatly to savings and therefore to income in retirement. We support the government's legislated move to 12% SG contributions. We support better targeting of government support for lower income groups, along with a revision to the taper rate to $2.00.

While we do not want to see endless tinkering with the superannuation system, there is clear need for, and potential to improve equity for lower- and middle-income earners.

The Panel could consider reviewing the level of support for non-homeowners through the Age Pension and rental assistance. Increased focus on inequity in Pillar 3 on housing and property will be important in the review.

Member perspective - advice and guidance

Many members who retire without advice or guidance are more susceptible to being loss averse and tend to make the following mistakes:

- Overly conservative investing, thereby inadvertently increasing their risk of running out of money due to inadequate capital growth,
- De-risking during market downturns, not managing market risk and either re-investing at market highs, or not re-investing (staying in cash), and
- Drawing down from account based pension at the minimum drawdown rate, which potentially leads to an overly thrifty standard of living (and may lead to an unduly high balances at death and unintended bequests); and challenges with managing personal budgets, tax or Age Pension effectively, all reducing retirees' potential income in retirement.

We note that education, tools, calculators, and advice add value to members during accumulation, transition to retirement and retirement phases. Super funds must continue to play a core role in providing just-in-time information and education, and thorough considered advice to their members.

Similarly, helping members to establish their long-term savings is critical; it is not possible to save retrospectively, nor is it possible to rely on investment to overcome a failure to save for the long term.

Good advice and information support members with financial outcomes, and are critical in motivating and guiding them to maintain savings pre-retirement, and to staying the course in retirement. Re-regulation following the Royal Commission has been necessary and is important.

However, current regulatory settings surrounding advice are not always helpful for members. Most importantly, consideration should be given to helping funds provide members with better, more personalised, information and guidance.

Superannuation has become necessarily complex in an effort to ensure equity. Against this backdrop, the ability to simplify the system from the member's perspective through intrafund advice and digital services is critical. We propose a working group be formed to explore the best way to develop safe and helpful digital advice tools for members.

Council of retirement and aged care regulators

A challenge in superannuation and retirement incomes is the wide-reaching impacts across other policy areas. We have observed that this remains a challenge even at government level considering the different departmental inputs that need to be sought for this review.

The Panel could consider a co-ordinated body to look at the interconnected-policies, systems and government bodies which support retirement, to improve coordination of planning, regulation and policy setting. This body would facilitate comparison of interlocking policies across superannuation, taxation and social security, and test the impacts of a changing environment or change in legislative policy. The model could be based on the existing Australian Council of Financial Regulators, but be a more publicly visible body.

Sustainability

Australia spends a relatively low 4.3% of GDP on the Age Pension compared with OECD countries at 8%, which indicates that government expenditure is sustainable. Australia needs a coordinated whole of

system approach and can achieve more, within current budget constraints, with effective coordination of government bodies and regulatory planning, to ensure shared purpose and consistent policy across ATO, DSS, DHS and Treasury, hence our suggestion for a council of retirement and aged care regulators.

On the positive side, compulsory savings work well, and we have high superannuation coverage rates as a community, which will in time improve adequacy in retirement incomes.

On the challenging side, with interrelated social security (pre- and post-retirement), taxation and superannuation settings, there is increased difficulty of transformative planning for government and industry – and greater need to get the broad settings consistent.

1 Introduction

First State Super is one of Australia's largest profit-for-members superannuation funds, responsible for managing accumulation and pension savings for approximately 800,000 members. First State Super has a large advice service, having grown an internal team and purchased the financial planning business StatePlus. Our advice service is focused on providing advice to members of First State Super and State Super NSW.

As at January 2020, the First State Super group manages over $105 billion in funds, including the savings of accumulation members and retirees ($25 billion in retirement assets supporting over 67,000 people in retirement), and a small defined benefit fund ($1.2 billion).

First State Super and VicSuper have signed a merger deed with a target implementation date of 30 June 2020. This merger will create a fund of around $130 billion and 1.1 million members. We have a strong interest in the future of our members, those whose lives are often dedicated to helping others – nurses, teachers, emergency services workers and public servants. We are committed to our member community and to the national interest as we believe they are intrinsically linked.

1.1 Our submission

We appreciate the opportunity to respond to the ***Retirement Income Review Consultation Paper*** (Consultation Paper), released 22 November 2019. In this submission, we provide feedback on issues we identify as important, and additional information on the Panel's approach. We have also contributed to the submissions of AIST and ASFA in relation to this paper.

This submission focuses on our members, and provides insights generated from our analysis and modelling of their behaviour.

We have focused our response in the following areas:

- Challenges arising from the absence of an agreed objective for superannuation and retirement incomes (and the limitations of the current drafting),
- Equity and adequacy in retirement incomes for all Australians with particular focus on women, intra- and inter-generational issues and those affected by changing work patterns (part-time or casual, sham contracting and gig workers),
- Complexities for consumers arising from the Age Pension system and its qualifiers, including the taper rate for the assets test; the lack of harmony between social security, aged care and retirement incomes, and
- The need for regulatory reform to facilitate the provision of personalised information and advice from funds, so important to retirees who face personal circumstances and retirement challenges, and to facilitate the development of lower cost guidance and digital tools.

2 Retirement incomes environment

2.1 Objective of superannuation and three pillars

Comment on objectives (Question 2)

We observe that the lack of agreed objectives for superannuation, and inconsistent views as to what constitutes "adequacy" create confusion for both individuals and policy makers.

Any conclusions drawn about whether the system is working, whether SG rates are appropriate, and whether retirees are well served are critically dependent upon views as to the objective and adequacy of both Age Pension and superannuation.

The wording of the draft objective anchors adequacy to the Age Pension; this implicitly sets a policy acceptance of retirement incomes which are barely above the Poverty Line. The Age Pension for a couple is $36,582 p.a. compared with Poverty Line income of around $33,575 for a couple[3].

We hold a more positive view which is that defining adequacy as a notion that implies self-reliance and adequacy, rather than mere Age Pension substitution, would help resolve some of the arguments about appropriate SG levels, and would put Australia onto a better economic footing for the coming three decades.

Most people rely on the first two pillars *(Question 2)*

Pillars 1 (Age Pension) and 2 (compulsory superannuation) clearly apply to the interests of our members and to most Australians, who will need support in full or part from the Age Pension. One of the questions the Panel may care to consider is whether the Age Pension itself is set at the right level.

The three pillars construct has now been expanded so that Pillar 3 includes the family home, concessional tax and after-tax super savings (above SG), other non-super savings, investments, and non-financial assets (small private or family businesses, investment properties or collectibles).

Our observation is that many Australians do not recognise they have a role to play in Pillar 3 by making additional savings, or actively preparing for retirement. Those who do, typically recognise the need for action only when they are too close to retirement to make an effective difference. For example, 16% of our members make additional contributions to superannuation, and most are over 50 and have incomes over $100,000 (see Section 5.1).[4] The number of people making extra contributions has dropped since contribution caps were reduced from 1 July 2017. Global research also suggests that only about 40% actively prepare for retirement and that 50% fear running out of money.[5] Consequently, robust Pillars 1 and 2 are very important for those earning up to median incomes.

The following charts show all Australians' incomes and the difference between average incomes and median incomes for those who submit tax returns (note that the median is well below the average[6]), the ASFA standards, Age Pension and two estimates of the Poverty Line – one for households and one for individuals. (The median tax-filers income picks up those who qualify for the 'low- and middle-

[3] Age Pension as at 9 Jan 2020, ABS Cat 6333 August 2018, and First State Super estimates. HILDA estimates the Poverty Line as being 50% of median income, and the Melbourne Institute sets the level for a couple with no dependents, including housing costs at $31,420 where the head of the household is in the workforce and $36,837 where the head is not in the workforce. There are numerous definitions of the Poverty Line so these should be taken as indicative.

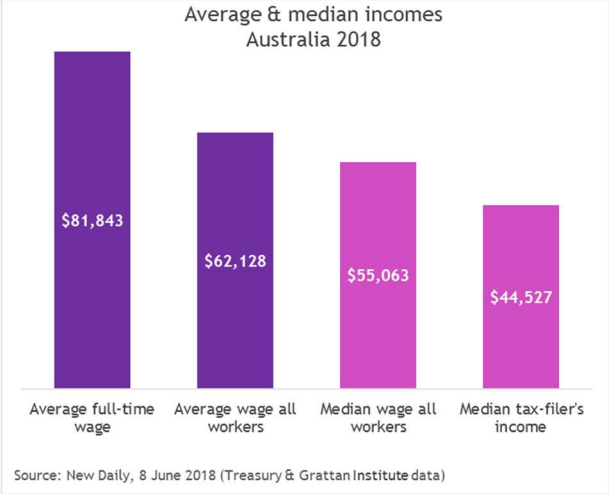
[4] Vanguard analysis done for First State Super as part of "How Australia Saves" research. Members with Superannuation Guarantee contributions during FY2016, FY2017 and FY2018. Voluntary contributions peaked in FY2017 before contribution caps were reduced.

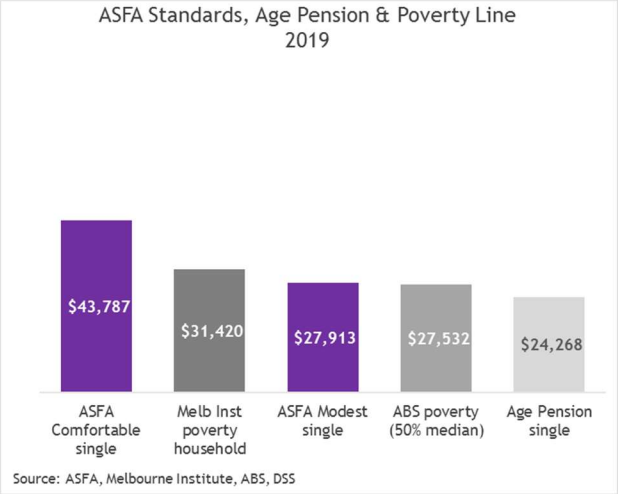
[5] "The New Social Contract: a blueprint for retirement in the 21st century" The Aegon Retirement Readiness Survey 2019, pages 16 and 61.

[6] "Revealed: how much Australians really earn", New Daily, 8 June 2018.

income tax offset'.) Consequently, when thinking about retirement, adequacy and equity, it is helpful to consider both average and median incomes, as relying on average income measures only can lead to overstated estimates of individuals' financial capacity and outcomes.

Chart 2.1 – Comparison of average and median incomes with ASFA Standards, Age Pension & Poverty





2.2 Housing and retirement

Comment on pillars and trade-offs *(Questions 5 and 6)*

The Age Pension and ASFA Modest incomes are very low when housing costs are taken into consideration. In 2017-18, 32% of all adults rented accommodation, and homeownership is forecast to fall from 76% now to 57% by 2056.[7] Poverty is exacerbated where retirees depend on private rentals which can reach $20,000 p.a. in major cities.

We are concerned that housing costs for the current cohort of retirees who do not have the benefit of a lifetime of super savings could face hardship in retirement. This will be exacerbated if the objective remains anchored to the Age Pension as an implicit measure of adequacy. Housing is a key component of the retirement picture. It is primarily a home, and a source of shelter, community and social cohesion. Its major financial benefit for retirees is not having to pay rent which gives an immediate cash flow benefit to retirees (once mortgages have been discharged).

Changes in home affordability and ownership over the past two decades will have flow on effects for retirees' income and expenditure, and for inter-generational equity (home ownership, wealth generation, and support for retirement incomes whether as rental substitution or equity release).

Housing will remain an issue for coming generations as prices and affordability reduce homeownership amongst retirees. Research completed by the Australian Housing and Urban Research Institute (AHURI) expects to see reduced home ownership translate into two critical factors with implications for the Federal Government's expenditure on rental assistance:

> Due to tenure and demographic change, the demand for Commonwealth Rent Assistance (CRA) is projected to rise by 60 per cent, from 414,000 in 2016 to 664,000 in 2031. The unmet demand for public housing from private renters aged 55+ is expected to rise by 78 per cent—from 200,000 to 440,000 households—between 2016 and 2031.

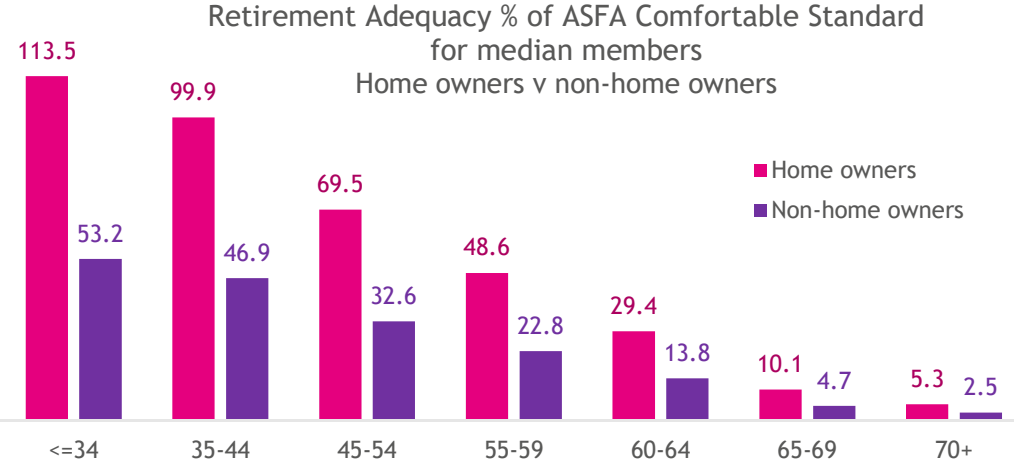
[7] "Money in Retirement", Grattan Institute, 2019, page 3

The CRA budget cost is predicted to increase steeply, from $972 million in 2016, to $1.55 billion in 2031 (at constant 2016 prices).[8]

It is worth remembering the multiple causes of home price rises, as a caution against assuming there is a causal relationship between increasing superannuation contributions since 1992 and home ownership rates. The Centre of Excellence in Population Ageing Research (CEPAR) has provided a useful analysis of market factors driving house price increases[9]. We add that the taxation incentives for property investment (fuelled by low interest rates) including for SMSFs are far more material in home affordability than superannuation contributions.

The chart below shows the impact of homeownership on adequacy for different age groups from modelling based on our accumulation members at 30 June 2018. Due to being on SG of 9% only since 2002, many people aged over 55 will fall well below the ASFA Comfortable Standard.

Chart 2.2 - Comparison of age cohorts' retirement adequacy with ASFA Comfortable



Source: First State Super data and modelling. (Member data at 30 June 2017)

See Appendix 2 for explanation of First State Super modelling. Chart based upon Membership population model. Key assumptions: single homeowner, salary indexation 3%, all contributions on current values indexed with salary, retirement age 65, incomes paid to age 94, CPI indexation at 2.5%.

ASFA sourced data is Comfortable Standard at June 2017 for single person in Sydney ($43,695 pa) and ASFA calculated Comfortable Standard for single renting one-bedroom apartment in Sydney ($62,659 pa).[10]

There is a cohort of older women in particular who are asset rich but income poor. While this conundrum could be addressed by downsizing, there are challenges due to housing market economics and suitability of housing—whether for renting or purchasing. It can often mean they have to dislocate from familiar community and support networks if they sell the family home and move.

The impact of relationship breakdowns and/or domestic violence can significantly change the reliability of homeownership as a defence against poverty.

[8] "Mortgage stress and precarious home ownership: implications for older Australians", Australian Housing and Urban Research Institute, R Ong, G Wood, M Cigdem, S Salazar, August 2019, page 1

[9] "Housing in an ageing Australia: Nest and nest egg?" CEPAR, November 2019, page 6

[10] ASFA, Retirees renting need more than $1 million to be comfortable, March 2017: https://www.superannuation.asn.au/media/media-releases/2017/media-release-13-march-2017 and ASFA, Retirees on modest budgets doing it tough, August 2017: https://www.superannuation.asn.au/media/media-releases/2017/media-release-29-august-2017

Also, the aged care system is largely based on an assumption of home equity funding aged care costs, so assuming that home ownership is always a source for retirement funding risks poor outcomes at the aged care stage.

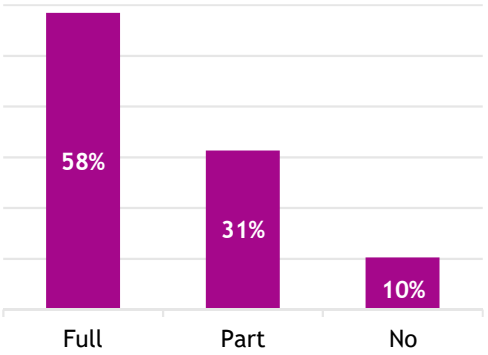
Housing can provide a necessary buffer against poverty in old age and should be included in policy steps for helping retirees. The Panel could consider reviewing the level of support for non-homeowners through the Age Pension and rental assistance.

2.3 Age Pension is a protective foundation for most

Although the Age Pension is at a similar level to the poverty line (50% of median equivalised household income), it is still a foundation for the majority of Australian retirees in financing their retirement. Even for those initially retiring as self-funded or on a part-pension, the Age Pension often plays a significant role at a later stage of retirement. More importantly, if retirees' account based pension values drop with market volatility, the Age Pension protects them from destitution.

The chart at the right indicates that more than half of retirees in our fund rely on a full Age Pension—its importance should not be undervalued, especially as retirees age and draw on their savings.

Chart 2.3 - Distribution of all members aged 67+ by Age Pension eligibility



Pension eligibility based upon super assets only and assuming homeownership.
Source: First State Super data and modelling.

When we assume conservatively members are drawing down from their super at the minimum drawdown rates from age 67, it is estimated that:

- 66% of our members will receive the full Age Pension before age 87 – the life expectancy for a 65 year old female, and
- 98% of members will receive at least some Age Pension benefit before age 87.[11]

Where members draw down from super at higher rates than the minimum[12], the Age Pension continues to provide important income in retirement. In the examples below (for a single retiree who draws down above the minimum rate to support a reasonable standard of living), we estimate that for members retiring with:

- $500,000—with a part pension on current settings, on average will spend half of their retirement life as a full age pensioner; and
- $1 million—initially without the Age Pension, on average will start receiving part pension from age 73 and will be on the full Age Pension at age 85.

The Age Pension also helps members manage longevity risk; as we argued in our response to Treasury, because most of our members will rely on part Age Pensions, this takes on the role of a CIPR.[13]

Apart from the wide-spread coverage both cross-sectionally and throughout retirement, our stochastic investment return analysis shows the means testing feature of the Age Pension provides protection

[11] See Appendix 2 Cameo models by gender for base assumptions.

[12] We use a higher drawdown rate of MDD+5.76% for some of our cameo. See Section 3.1 for more explanation.

[13] First State Super submission to Treasury on CIPRs https://consult.treasury.gov.au/retirement-income-policy-division/comprehensive-income-products-for-retirement/consultation/download_public_attachment?sqId=question.2016-09-06.2395613246-publishablefilesubquestion&uuId=885262533

against unfavourable investment outcomes.[14] This includes both lower-than-expected returns throughout the whole retirement period and an unlucky order of returns[15] (holding the average return constant). Members retiring with $500,000 are expected to receive:

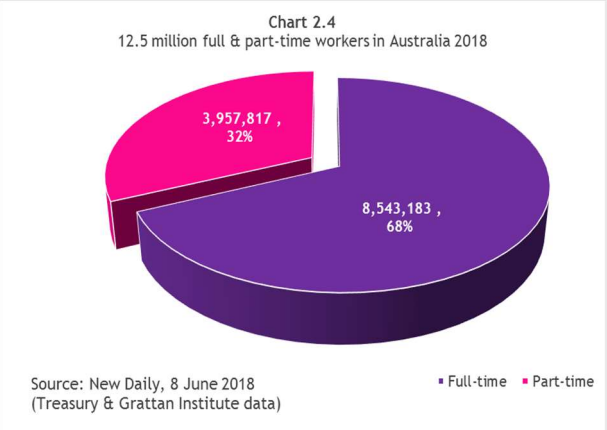
- 10% (or over $35,000) more Age Pension benefits (actuarial fair value) when facing a bear market environment, compared with the normal investment return scenario,
- 15% more Age Pension benefits (actuarial fair value) when facing an unlucky order of returns, compared with the normal investment return scenario.

2.4 Changing workforce

Centrality and importance of SG – changing work patterns *(Question 7)*

At its core, the defined contribution superannuation system relies on individuals' relative success in the labour market, given its origins and relationship as a form of occupational welfare. Labour market disadvantage is compounded for women due to pay inequity and reduced attachment to the labour market via interrupted work patterns and part-time work. Similarly, people on low incomes relying on insecure work with periods of unemployment experience labour market disadvantage which is magnified by low superannuation contributions and low balances.

It is striking to observe that one third of the workforce is already part-time.



Increasing casualisation of the Australian workforce may suit many workers and employers, especially where the goal is work flexibility. Unfortunately, this is often accompanied by reduced entitlements which full time workers take for granted—holiday leave, overtime, sick leave, super contributions etc. Women are particularly affected. This trend will be important for policy consideration in light of the impact on retirement income level and Age Pension dependency.

There are many specific issues related to superannuation, early retirement age and reduced life expectancy for Aboriginal and Torres Strait Islander peoples, and these deserve separate attention. Many of the issues we identify as affecting lower income and casualised workforces certainly apply to some indigenous workers, but there are many other issues related to identity, health and financial literacy which reduce adequacy and see Aboriginal and Torres Strait Islander populations suffering the greatest inequity. (We support AIST's comments in this regard.)

As discussed in Section 3, career breaks and part-time work can have a substantial negative impact on the adequacy of retirement income. This can be easily overlooked if the focus of the superannuation system is on full-time workers with 40 plus years of steady employment.

The 'gig' economy and other casualised or part-time employment structures leave individuals exposed to insufficient savings, insurance and diminished financial security. We reject a recent suggestion that people who earn less than $50,000 should be able to opt out of super—early savings have the greatest influence on long term outcomes. For new entrants to the workforce, incomes typically also vary from year to year. There is a short-term and understandable preference to have money in the hand, as expected from behavioural finance. However, this attitude will ultimately be self-defeating if saving is either curtailed or deferred.

[14] Modelling details are provided in Appendix 2.

[15] This is often referred to as the sequencing risk.

2.5 Interconnected systems

The major themes identified by the Review Panel — *equity, adequacy, sustainability and cohesion* — call into question a number of contentious taxation settings and social security distributional issues. These themes, and members' outcomes, reflect:

- social and industrial practices (gender equity issues of remuneration and opportunity gaps),
- changing work patterns (casualisation, the 'gig' economy and sham contracting), and
- intra- and inter-generational equity (housing and employment).

The four themes overlap—particularly adequacy and equity. Further, many social security and taxation issues touch each of these themes.

The interaction of the *progressive* income tax system and the *flat* superannuation taxation system creates anomalies, which also tend to conflict with tight social security eligibility tests. In turn, these tests are themselves disincentives for individuals to improve their retirement incomes by undertaking part-time work in retirement.

Council of financial and aged care regulators

A challenge for superannuation and retirement incomes are their wide-reaching interaction with other policy areas. We have observed that this remains a challenge, even at government level considering the different departmental inputs that need to be sought for review.

The growing sum of money in the system, and the number of Australian lives touched by super, attracts considerable attention from government and policy makers. Superannuation is already at $3 trillion in size and is on a trajectory to grow exponentially over the coming decades.

Good governance of members' retirement assets is required at both fund and government levels. The scale and importance of saving for retirement requires focus on the long-term; the size and complexity of the system indicate the need for increased and dedicated functions within government to champion a coordinated approach to managing the system.

Australia needs a coordinated whole of system approach and can achieve more, within current budget constraints, with effective coordination of government bodies and regulatory planning, so there is shared purpose and consistent policy across ATO, DSS, DHS and Treasury.

For this reason, the Panel could consider whether a co-ordinated body is required to look at the interconnected-policies, systems and government bodies which support retirement. Its focus would be to improve coordination of planning, regulation and policy setting. The model could be the existing Australian Council of Financial Regulators, but be a body that was more publicly visible.

This would ensure suitable focus on superannuation savings and adequacy levels (in the context of other financial considerations throughout life), and ensure coherent interactions with the Age Pension, and ultimately with other services for older people. It should foster consideration of macro issues of inter-generational equity, fiscal sustainability, social and ageing impacts. Co-ordination of these intersecting policy areas could reduce competing mandates and encourage dedicated policy development for the entire superannuation environment.

Having dedicated overview and greater departmental focus would raise the profile of superannuation and retirement planning, and help meet system objectives (whether the predominantly fiscal objective set out by the government, or a broader objective to ensure members retire in a dignified manner).

3 Adequacy

3.1 SG rates and retirement outcomes

(Question 10)

Much of the published analysis to date assumes a standard full-time working life, without career breaks, and is based on average male earnings and career progression, with limited acknowledgement of the wide variability of income levels.

Any assessment of adequacy must take in a broader view of likely outcomes in retirement. The impact of career breaks and potential for early retirement are important factors for our membership and the rise of the gig economy is a notable trend in this context. Our analysis shows that increasing SG improves women's absolute financial position, although it may not improve equality.

Age	Minimum annual payment as % of account balance
55-64	4%
65-74	5%
75-79	6%
80-84	7%
85-89	9%
90-94	11%
95+	14%

Similarly, critics of the current SG settings assume that all members draw down their account-based pensions at the minimum draw down rates shown in the adjacent table. They argue that increasing SG is not justified because the impact of the taper rate for Age Pension assets test means that retirement income would increase by less than the increase in SG. However, our analysis below in *3.3 Gender Cameos* demonstrates that these findings are largely driven by the assuming minimum drawdown in retirement income, which is relatively insensitive to changes in the SG rate and balances at retirement.

When more aspirational retirement income targets are modelled, reflecting actual advised member experience, we find that a 2.5 percentage point increase in SG can lift retirement incomes by around 8%. If the Panel bases its analysis on current members' behaviour, rather than on future expected or desired (nudged) behaviour, it may underestimate the benefits of the higher legislated SG for retirees.

Our member data shows that over half of our advised retired members are drawing down more than the minimum rule required, and often draw at a broadly constant real dollar rate.[16] This suggests that income coaching can be effective in moving retirees away from the minimum anchor towards a more adequate level of retirement income. We believe this sort of coaching will become the norm in future as guidance and digital tools improve and are offered more widely by funds. We note that Treasury and the Australian Government Actuary often use a constant real dollar draw down scenario, rather than the minimum drawdown level.

It is important to set an SG rate that allows for the possibility of broken work patterns or poor investment outcomes. It is impossible to know in your 20's how your life will unfold. While you can choose to stop saving, you cannot go back in time to save more. Ramping up savings later in life, the typical behaviour we see among members today, cannot influence retirement outcomes to the same degree as contributing early in life. The power of compounding is such that for every additional $1.00 a member contributes in their early 20s, they can increase their retirement savings by $5.00 or more. Put this another way, to catch up in later life, a pre-retiree needs to invest $50,000 instead of $10,000.

Adequacy at a national policy level necessarily relates closely to sustainability although Australia's pension cost is low in the OECD context.[17]

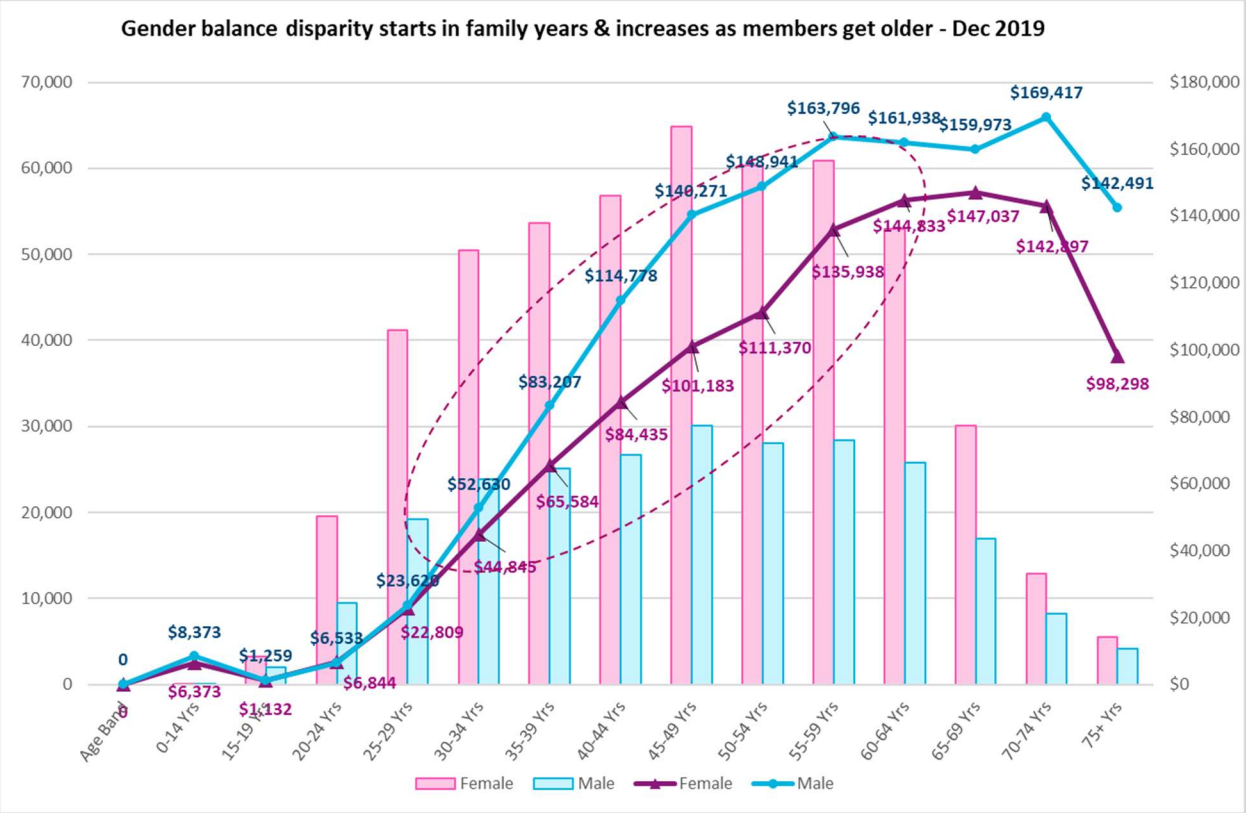
[16] A supplementary submission that compares the drawdown behaviour of both First State Super (primarily without financial advice) and StatePlus retirees (primarily with financial advice) will be provided later.

[17] OECD shows 4.3% in "Pensions at a glance 2019: Country Profiles – Australia". In contrast, Rice Warner reports that the cost of the Age Pension was 2.6% of GDP in 2018 and is expected to continue to fall to 2.5% by 2038, in "Super success in reducing government pension liability", SMH, 13 Oct 2019.

3.2 Current gender profiles

Our membership is close to 70% female and predominantly employed in the public sector, where there tends to be greater salary parity between genders. Nonetheless, the Chart 3.1 below plots current accumulation balances by age and gender shows that women's savings balances diverge from men's coinciding with family years. This chart provides context for the following analysis of projected outcomes by age and gender.

Chart 3.1 – Members' balances by gender and age band - Accumulation



Source: First State Super accumulation data, December 2019.

Chart 3.1 also shows that breaks in career, reductions in earning and savings are damaging and persistent. It also shows that our younger members have quite low balances. While our modelling shows most younger members will benefit more from lifelong super savings than previous generations, their future balances are vulnerable to interruptions.

3.3 Gender cameos

(Question 12)

We have modelled three different cameos to look at the impact of various SG rates on the adequacy of retirement balance and income drawdown in retirement.

Table 3.1 (page 17) shows the modelled impact of super for a full working lifetime. The analysis demonstrates the relative benefits for women with and without career breaks, while also showing that the equity gap expands with increased SG, even though adequacy improves (with one exception[18]). We

[18] The taper rate has a slightly negative affect on women in continuous employment in the 15% scenario, but this is offset when higher drawdown rates are applied.

note that exploring gender adequacy necessarily raises issues which crossover with gender equity issues (see Section 4 on equity).

Our base case assumes that women will take a career break. The assumptions used are based on the experience of our typical female members. The model shows that:

- For new young members, the legislated increase in SG from 9.5% to 12% would boost balances at retirement by around 29%, increase retirement income by 8%, and would allow women to meet the ASFA Comfortable Standard ($43,255 for a single person) on SG alone,
- For women who have career breaks, and whose career progression is consequently affected, the 12% SG rate leads to a retirement outcome just above that for women on 9.5% SG who do not have career breaks,
- That is, the increase of SG from 9.5% to 12% is just enough to compensate for family breaks from work, **but not enough to equal what men can save at 9.5%,**
- Theoretically, if SG remained at 9.5%, women taking family breaks could have somewhat equivalised outcomes, if their SG was boosted to 12%. (Assuming equal salaries, this logic should also apply to men who spend time with family or otherwise have broken work.)

Table 3.1 below shows the benefits for members under different SG scenarios with 9.5% used as the baseline:

- Benefit on final retirement balance for SG at rates of 9.5%, 12% and 15%, for each of:
  - Female with career breaks (our typical member),
  - Female in continuous employment,
  - Male in continuous employment.
- Retirement incomes (average for retirement years) shown as $ and %:
  - Advised scenario - draw down at a constant $ rate until age 93, providing a consistent, higher income,
  - Minimum drawdown for an account-based pension,
  - Typical advised member experience – members who do not draw down at the minimum rate typically drawdown at much higher rates, equivalent to 5.76% above the minimum draw down rate (for example, members aged 65-79 are drawing 10.67% of their original account balance).

The results highlight the potential benefit to members in terms of higher retirement income of moving away from the minimum drawdown level (noting the need to then manage longevity risk). Importantly, under these strategies, a small increase in SG can be shown to have a significant impact on retirement incomes. For example, **a 2.5% increase in SG from 9.5% to 12% could be expected to lift retirement incomes by ~8%.**

A typical First State Super female member with a career break who contributes 15% will reach a final balance which is approximately 90% of a male in continuous employment at 9.5%; and her retirement income on minimum drawdown will be similar. **If her SG remains at 9.5%, her retirement income will be 83% of his.**

We note that average balances for members in their late 50s and early 60s are frequently lower than the amounts members retire with. This “plumping” appears to be the result of account consolidation or additional contributions as people prepare to retire and can about double account balances.

Table 3.1 Projections - improved outcomes with increased SG for full working life

Accumulation			Average retirement income $ per year			Increase to retirement income % relative to baseline		
SG rate	Retirement balance	Increase to balance	Constant real income	Minimum draw down	Minimum draw down + 5.76%	Constant real income	Minimum draw down	Minimum draw down + 5.76%
Female with career break (this represents our typical member)								
9.5%	$320,756	100%	$40,424	$37,599	$38,794	100.0%	100.0%	100.0%
12.0%	$412,691	129%	$43,557	$38,905	$42,136	107.7%	103.5%	108.6%
15.0%	$523,014	163%	$46,632	$39,201	$45,539	115.4%	104.3%	117.4%
Female continuous employment								
9.5%	$378,889	100%	$42,458	$38,588	$40,974	100.0%	100.0%	100.0%
12.0%	$486,124	128%	$45,641	$39,202	$44,458	107.5%	101.6%	108.5%
15.0%	$614,805	162%	$49,037	$39,137	$48,104	115.5%	101.4%	117.4%
Male continuous employment								
9.5%	$570,575	100%	$47,866	$39,112	$46,868	100.0%	100.0%	100.0%
12.0%	$728,253	128%	$52,376	$40,582	$51,546	109.4%	103.8%	110.0%
15.0%	$917,466	161%	$59,072	$45,376	$57,921	123.4%	116.0%	123.6%

Source: First State Super data and modelling.

See Appendix 2 for explanation of First State Super modelling. Chart based upon Cameo Models by Gender. Key assumptions: single homeowner, salary at age estimated from membership SG, SG contributions only, employment from 25 to 67, CPI indexation at 2.5%.

Typical member career breaks used in this model match the experience of our female members. On average we find this to be 2 years of not working from age 27, followed by 4 years part-time (at a 50% workload).

Constant real income derived as the sustainable rate to age 93.

Early retirement

Many of our members also face the reality of early retirement with similar effect. Our analysis suggests that retiring just one year early (that is, before age pension eligibility), lowers retirement income by around 5%.

Cash withdrawals

For completeness, while most of our analysis has looked at how we can help members manage their savings drawdowns in retirement, there is a small group of some 7,000 members who take full or partial cash payments at retirement. Of these, 32% have a retirement balance less than $200,000, 16% have a balance between $200,000 and $300,000, and 7% have a balance above $300,000. The median payment in 2017-18 was $8,000 and the average was $34,400. To us, this suggests that there is limited cash leakage from the system.

3.4 Simple measures to address adequacy

In passing, we note additional steps which would improve adequacy – and which would be easy to implement include:

- Removing the $450 threshold to help people who have multiple jobs or casual employment, leading to a consistent approach across all employers,
- Including contractors and self-employed people in super,
- Paying SG on parental leave, providing additional tax incentives to support contributions on parental leave especially for women, and to encourage funds to have easy regular contribution mechanisms and nudges in place.

3.5 Importance of a cohort lens

(Question 12)

The Panel should use a cohort approach to its consideration of adequacy. Irrespective of how adequacy is measured, there is large variance in experience and expectations across the population. For this reason, we segment our member population according to the particular problems we are looking at.

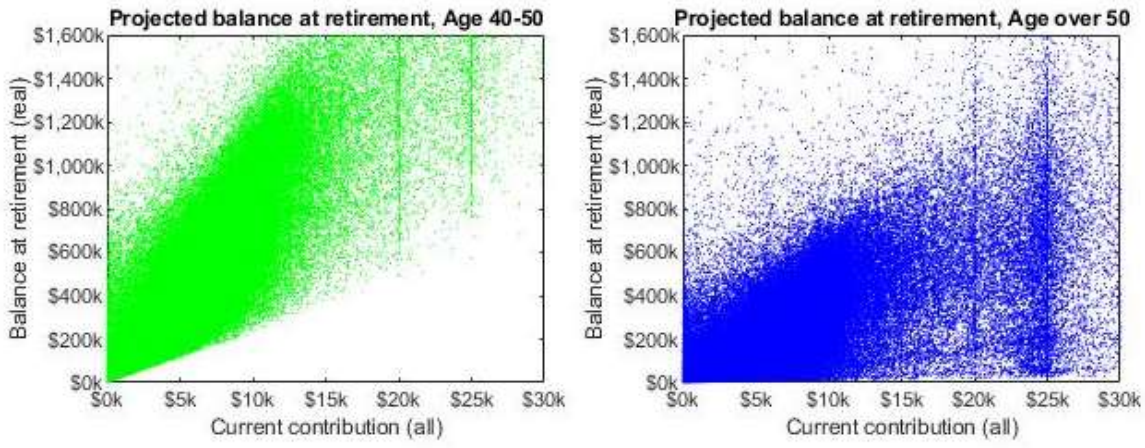
Thinking only in terms of overall population averages and medians will inhibit a sound understanding of this variance and ultimately undermine attempts to understand the retirement incomes system. For example, Chart 3.2 and 3.3 below show the projected balances at retirement of each of our accumulation members based on their current annual contributions:

- Age brackets are shown as colours,
- Contributions include SG and voluntary contributions (this is assumed for all members, including younger cohorts, to be the same as the experience of our current older cohorts, and includes meaningful voluntary contributions in the lead up to retirement),
- Wage progression is assumed, based on the typical pattern/experience of our membership today.

There is no single point of convergence across or within age brackets — rather there is considerable variation across individuals and cohorts:

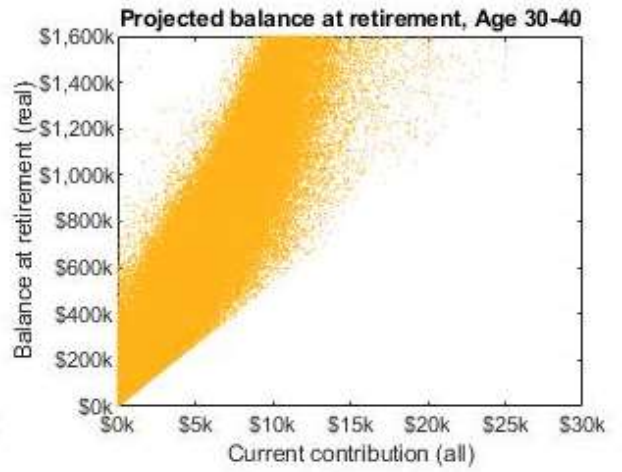
- The colour age bands show age as a meaningful cohort, reflecting the benefit of long term contributing to super and the gradual increase of SG since 1992,
- The height of the colour/age bands show the range in projected balances at retirement within an age bracket.

Chart 3.2 - Projected retirement balances for each First State Super member, aged 40+



The older cohorts, age 40-50 and age 50 plus, have lower projected balances due to their history of lower SG rates and partial coverage for their careers. They also show higher variability in part due to the realities of different work patterns. The vertical lines visible in Chart 3.2 are real effects (not printer or plotter errors) and show behavioural finance at work: members focus on additional contributions at $20,000 and the $25,000 annual concessional contributions cap.

Chart 3.3 – Projected retirement balances for each First State Super member (younger members)



Younger members' projections appear less variable at each contribution rate (proxy for income). This is due to the dominance of time on the model, whereby the assumptions underpinning the analysis tend to dominate the results and hence they should be interpreted with caution.

It is difficult to know today whether the assumptions we made in this analysis around voluntary contributions will be appropriate for this age cohort (they are more likely to be appropriate for the older cohort above). The reality of working life, which is far more variable than a model can demonstrate, is likely to produce lower retirement outcomes relative to those shown. For this exercise, we assumed unbroken work patterns which we expect to be an unrealistic assumption in future.

Treasury's recent information note 'Superannuation balances at retirement analysis'[19] suggests the variability of outcomes will continue to increase between 2020 and 2060, but that there will be broader cohorts with higher balances than seen today.

The age cohort retiring in the 2030s (last Baby Boomers will reach Age Pension eligibility age in the early 2030s) is important for these reasons:

- Within our membership the "2030" Baby Boomer cohort is the group identifiable by a dramatic drop in projected retirement adequacy (the majority of the blue cohort previous page, typically have projected retirement amounts under $500,000),
- They have 10 more years in the accumulation phase so are still impacted by policy settings across the entire retirement incomes system,
- The youngest only benefited from SG at 9% or above since they were 37 years old, and most were too late to benefit from paid parental leave and full childcare support, however, many of them have benefited from increased home values,
- The Parliamentary Budget Office expects them to cause the most impact on the Budget.[20]

In addition to age brackets, we suggest meaningful cohorts include Men/Women, Homeowners/non-homeowners and Regional/Metropolitan explored elsewhere in this submission.

[19] http://research.treasury.gov.au/sites/research.treasury.gov.au/files/2019-11/Superannuation%20balances%20at%20retirement.pdf

[20] Parliamentary Budget Office, *Australia's Ageing Population: Understanding the fiscal impacts over the next decade*, Report No. 02/2019, https://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Budget_Office/Publications/Research_reports/Australias_ageing_population_-_Understanding_the_fiscal_impacts_over_the_next_decade

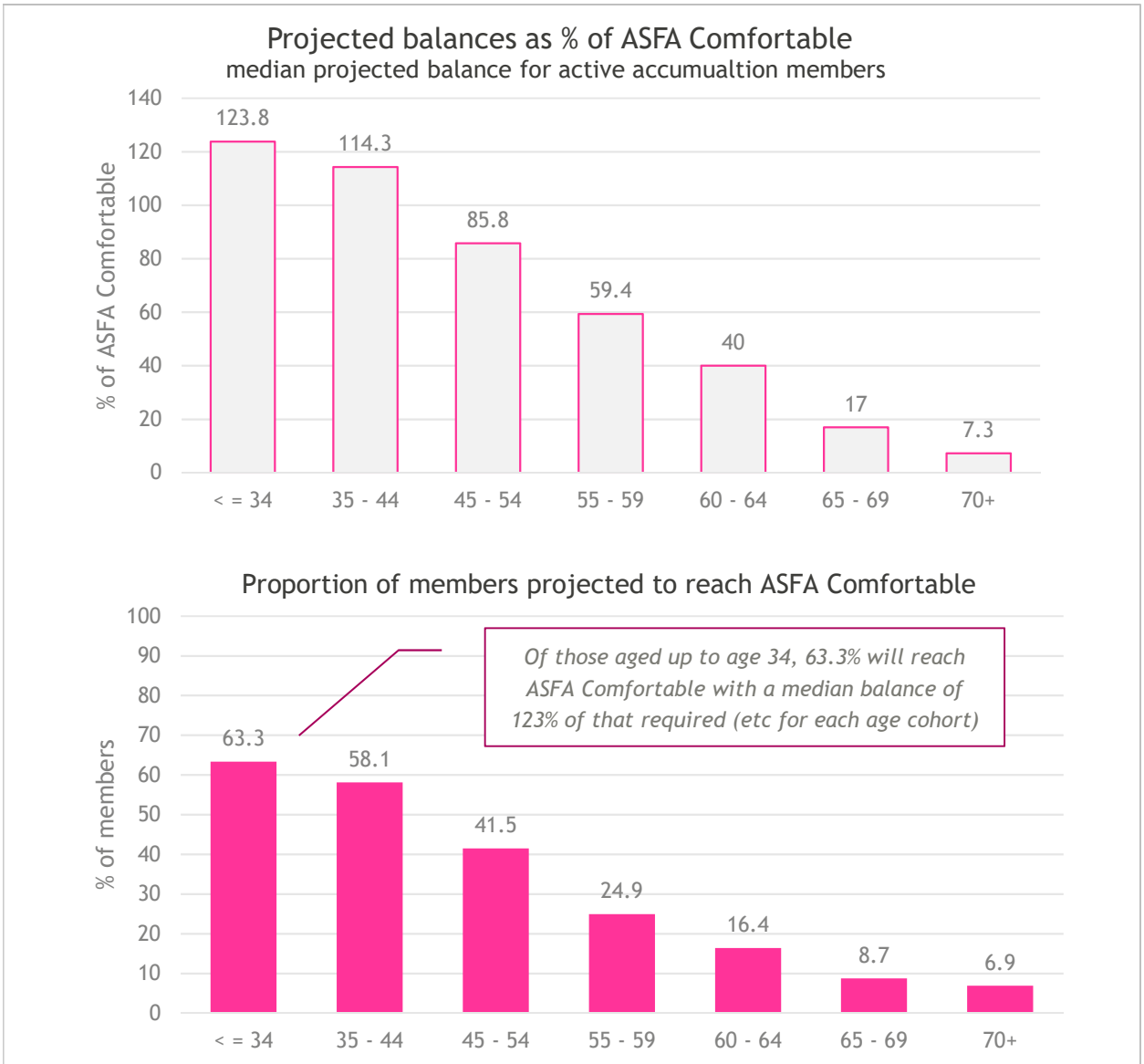
3.6 First State Super members and the ASFA Standard

(Question 12)

The following charts show similar analysis of the expected outcomes of our members, calculating both the median balance by age cohort and balance relativity to the ASFA Comfortable Standard along with the proportion of each cohort who are likely to reach this standard. We include access to Age Pension in our analysis.

Our younger cohorts, who will contribute throughout their working lives with SG above 9.5%, will be best served: of those aged up to age 34, 63.3% will reach ASFA Comfortable with a median balance of 123% of that required. In other words, most of this cohort will have additional savings "insurance" for the multiple risks in retirement. In contrast, those now aged 60 plus are in a much worse position.

Chart 3.4 - Comparison of members' projected balances and the ASFA Comfortable



Source: First State Super data and modelling.

See Appendix 2 for explanation of First State Super modelling. Chart based upon Membership population model. Key assumptions: single homeowner, salary indexation 3%, all contributions on current values indexed with salary, retirement age 65, incomes paid to age 94, CPI indexation at 2.5%. ASFA comfortable standard for a single person aged 65 is $43,255 per annum (at 31 March 2019). Using our assumptions (CPI not AWE deflation), this converts to a lump sum of $408,270.

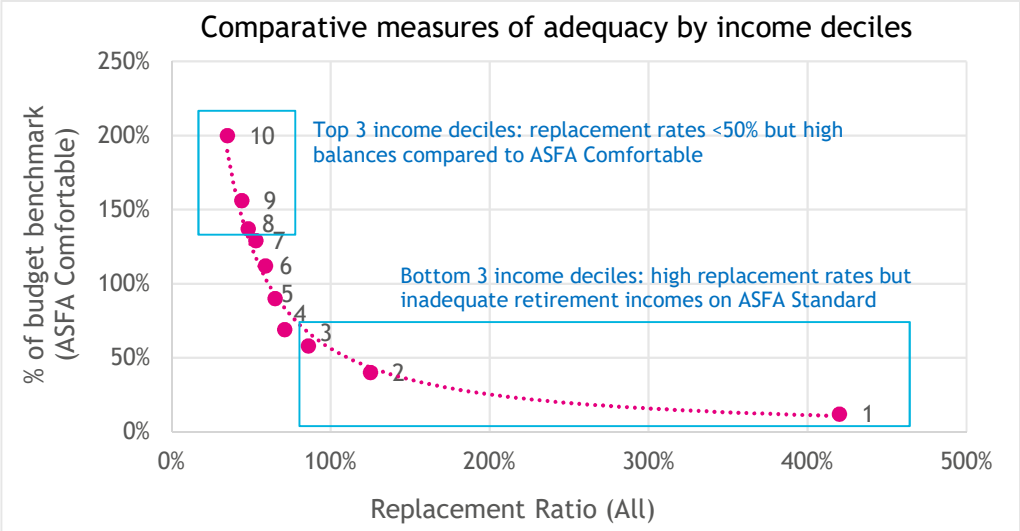
3.7 Measuring absolute and relative adequacy

(Question 11)

The Consultation Paper discusses the difference in absolute and relative measures for adequacy. While there are conceptual and technical pros and cons for each, we have attempted to empirically compare these two measures on our membership across income deciles. We find an inverse relationship: relative adequacy (replacement ratio) increases as absolute adequacy (budget standard) declines, and vice versa. This is due to the wide variability of incomes amongst the Australian working population.

The chart below plots the expected outcomes for our active membership by income decile with adequacy measured both as a percentage of the ASFA Comfortable budget standard and an income replacement ratio, in an attempt to display ***respective relevance of the two measures***. Both retirement measures include the Age Pension.

Chart 3.5 – Budget adequacy measure compared with replacement ratio



Source: First State Super data and modelling.

See Appendix 2 for explanation of First State Super modelling. Chart based upon Membership population model. Key assumptions: single homeowner, salary indexation 3%, all contributions on current values indexed with salary, retirement age 65, incomes paid to age 94, CPI indexation at 2.5%. ASFA comfortable standard for a single person aged 65 is $43,255 per annum (at 31 March 2019). Using our assumptions (CPI not AWE deflation), this converts to a lump sum of $408,270.

The replacement ratios calculated as projected income in retirement divided by projected salary at retirement.

Approximately 30% of our membership (income deciles from a high of 10 down to 8) have replacement rates lower than 50%, but budget standards well above 100% of the ASFA Comfortable.

- This suggests that in the real Australian population a policy focus on attaining a given replacement ratio (here we use 50% of gross income) will give undue policy attention and effort to the upper income deciles and those people who already have adequate retirement savings for a comfortable standard of living.
- On the flip side, the bottom three deciles have the highest replacement ratios (clearly extreme results for these members who are well below the ASFA Comfortable); it is likely that these three cohorts include part-time workers. The replacement ratios however could potentially be more realistic for members with mid-level incomes).

The analysis suggests replacement rates are not a useful adequacy measure at the policy level for the Australian system, even if they help some individuals to understand their future income levels.

There are also meaningful challenges with the replacement ratio method, including identifying a useful pre-retirement salary when members reduce working hours before retiring. This raises the question as to whether a replacement ratio for a full-time salary or a reduced hours salary is used.

4 Equity

4.1 Gender super gap – projected outcomes

(Questions 13, 14 and 16)

Pillar 2 (SG) is a work based defined contribution system and the outcomes for individuals from Pillar 2 are largely determined by their employment experience. Different assumptions about a 'typical employment experience' have led to the current superannuation system. Inequities in employment experience (gender wage gap, advancement and career opportunities, gendered division of labour) are exacerbated by Pillar 2.

The value of contribution tax concessions increases as salary increases, and the value of earnings tax concessions is greater for contributions made earlier in a career. Breaks in paid work to undertake caring or child rearing have recently been partially compensated by employer and government payments, but the associated breaks in superannuation contributions have not been addressed.

Because of the interaction between the retirement incomes system and employment experience, structural barriers to gender equity persist in retirement incomes.

The structural barriers preventing gender equity in retirement will take some time to remove. If there is no change, the consequences for our female members are estimated to be an annual retirement ***income*** which is $8,819 less than our male members. We find around one-third of this difference is due to career breaks that are likely to be experienced by female members, with the remaining two thirds coming from wage inequality.

We have analysed the profile of our typical female and male members (age, balance, contributions and wages) and created life-time cameos that align with their profiles (see also Section 3, page 17).

We compared projected model cameos and the real experience of our current average members:

- For our average female members at age 45 compared with a cameo of lifetime continuous employment,
  - the difference in average retirement balance is equivalent to the experience of two years of not working from age 27 and 4 years part-time (at 50% workload),
  - this confirms that the majority of our existing female members experience extended career breaks. In the table below, we have taken this to be the base case,
- For men, there is no material discrepancy between the actual and cameo experiences.

Female and male cameos in both accumulation and retirement are shown below:

- The female cameo ends with 57% of the male retirement balance (a gap of 43%), and 83% of the retirement income (a gap of 17%).
- The lower gap in retirement incomes is due to the effect of the Age Pension in remedying some, but not all, of the gender inequity in the superannuation system. In dollar terms, the gap in retirement incomes is $8,819.

Table 4-1 – Gender gap in retirement balance and income

	Projected Retirement balance	Gap at retirement F:M	*Balance as percentage of male final*	Projected average retirement income p.a.	Gap in Retirement Income F:M	*Income as percentage of male income*
Female	$412,691	$315,562	**57%**	$43,557	$8,819	**83%**
Male	$728,253			$52,376		
Source: First State Super data and modelling. See Table 3.1 for source data and assumptions.						

Table 4.2 below shows that the gender gap in retirement incomes differs depending on the drawdown behaviour assumed (see Section 3, page 14). Where the minimum drawdown applies, both female and male members have lower retirement incomes, but may retain higher balances, which may be left as bequests. In these scenarios, the inequity in the retirement system is hidden (and passed on to dependents) and therefore does not reflect the real impact of the inequity in retirement incomes. By examining outcomes where members draw above minimum, the gender difference is more exposed. As discussed in Section 3.3, based on the experience of our advised members, we believe the members will draw higher incomes in retirement as guidance and digital tools improve.

Table 4-2 – Gender gap in retirement income under difference drawdown scenarios

	Retirement Incomes under difference drawdown scenarios		
	Constant real income	**Minimum draw down**	**Minimum draw down + 5.76%**
Female	$43,557	$38,905	$42,136
Male	$52,376	$40,582	$51,546
F:M Gap $	*$8,819*	*$1,677*	*$9,410*
F:M Gap %	*83%*	*96%*	*82%*

Source: First State Super data and modelling. Table 3.1 for source data and Appendix 2 for assumptions for Cameo models by gender.

We also decompose the gender gap into wage inequality and career break:

- of the 43% gap in balance at retirement, 33 percentage points are due to wage inequality while 10 percentage points are due to career breaks,
- this implies that around one-third of the observed gender gap in retirement balance is attributable to career breaks, with the remaining two-thirds due to wage inequality.

We find similar results in terms of retirement incomes, when the minimum drawdown is not assumed. Addressing the career break would increase retirement incomes by approximately $2,000 a year.

Table 4-3 Source of gender gap in retirement incomes under different drawdown scenarios

Female outcomes as percentage of male outcomes	**Balance at retirement F:M %**	**Female retirement Income as % of male**		
		Constant real income	Minimum draw down	Minimum draw down + 5.76%
Combined wage inequality and female career break (as % of male) gender gap (see tables above)	57%	83%	96%	82%
Implied inequality	43%	17%	4%	18%
– *Wage inequality contribution*	*33%*	*13%*	*3%*	*14%*
– *Career break inequality contribution*	*10%*	*4%*	*1%*	*4%*

Source: First State Super data and modelling. Table 3.1 for source data and Appendix 2 for assumptions for Cameo models by gender.

Regional gaps

In our membership we also find persistent gaps between the balances of members living in regional areas to those living in metropolitan areas. Accumulation members in regional areas have average balances at 90% of those of their metropolitan counterparts. For Retirement Income Stream and Transition to Retirement members, the ratio of average balances for regional to metro is 76% and 83%.

The gender gap discussed above also exists within both regional and metro cohorts, meaning female accumulation members in regional areas have even lower average balances overall.

4.2 Equity, targeted public support, and sustainability

(Question 19)

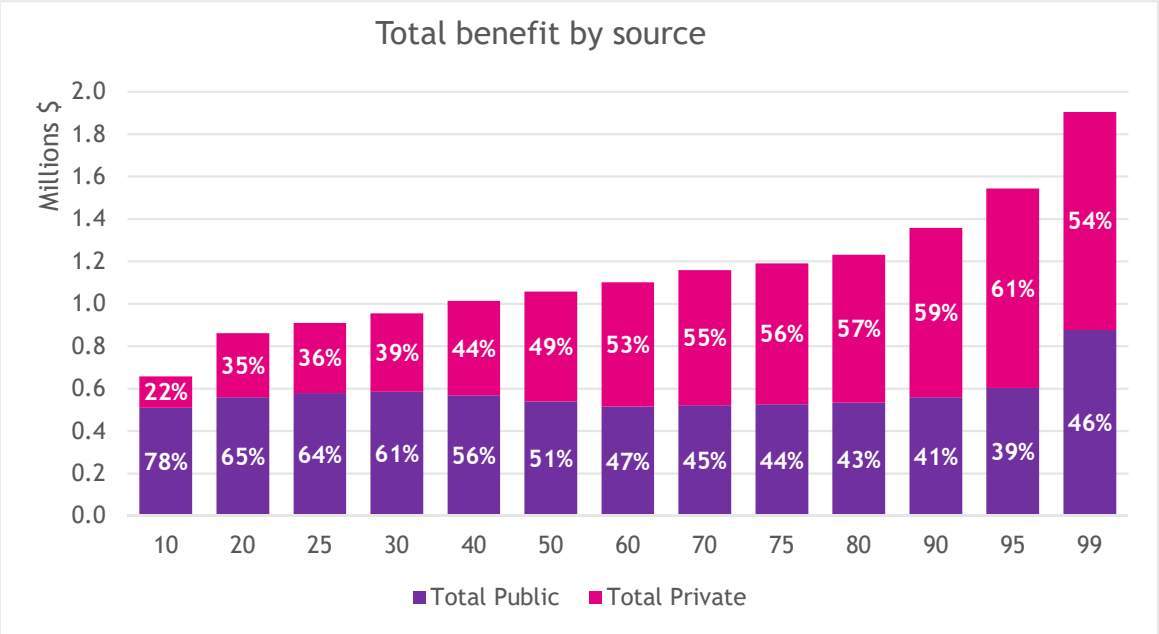
Australia spends a relatively low 4.3% of GDP on the Age Pension system compared with OECD countries' average of 8% and our Age Pension is "a flat rate payment and redistributive in nature"[21]. This implies that the public spend is sustainable, even allowing for projected ageing of the population. As noted, the Review's themes overlap and some of the comments here may be relevant for the discussion of sustainability.

We have calculated a total retirement benefit of our membership profile which takes into account both private and public contributions. The modelling is done by income decile and is based upon key assumptions of 40 years of working, SG contributions only, accumulation based upon our MySuper objectives, retirement from ages 65 to 89, and retirement income indexed at CPI.

The classifications of private and public contributions are (See Appendix 2 Member model by income for full details):

- Private: SG contributions and investment earnings in accumulation and decumulation
- Public: contributions and earnings tax concessions, LISTO, Age Pension payments.

Chart 4.1 - Public and private contributions to retirement benefits by income decile



Source: First State Super data and modelling.

See Appendix 2 for explanation of First State Super modelling. Chart based upon Member Model by Income. Key assumptions: single homeowner, median salaries for each age, salary indexation 3%, SG only, retirement age 67, real constant income to exhaust balance at age 89.

The contribution of ***private savings*** to total retirement benefit (and hence incomes) increases with the saver's income in both absolute terms and as a proportion. From the 10th to the 90th income percentiles the private contribution increases from:

- $151,000 up to $859,000 in absolute terms,
- 22% to 59% as a percentage of total benefit.

[21] Pensions at a glance 2019: Country Profiles – Australia", OECD

The ***public contribution*** varies far less, except at the 95th and 99th income percentile. Between the 10th and 90th income percentile, the public contribution:

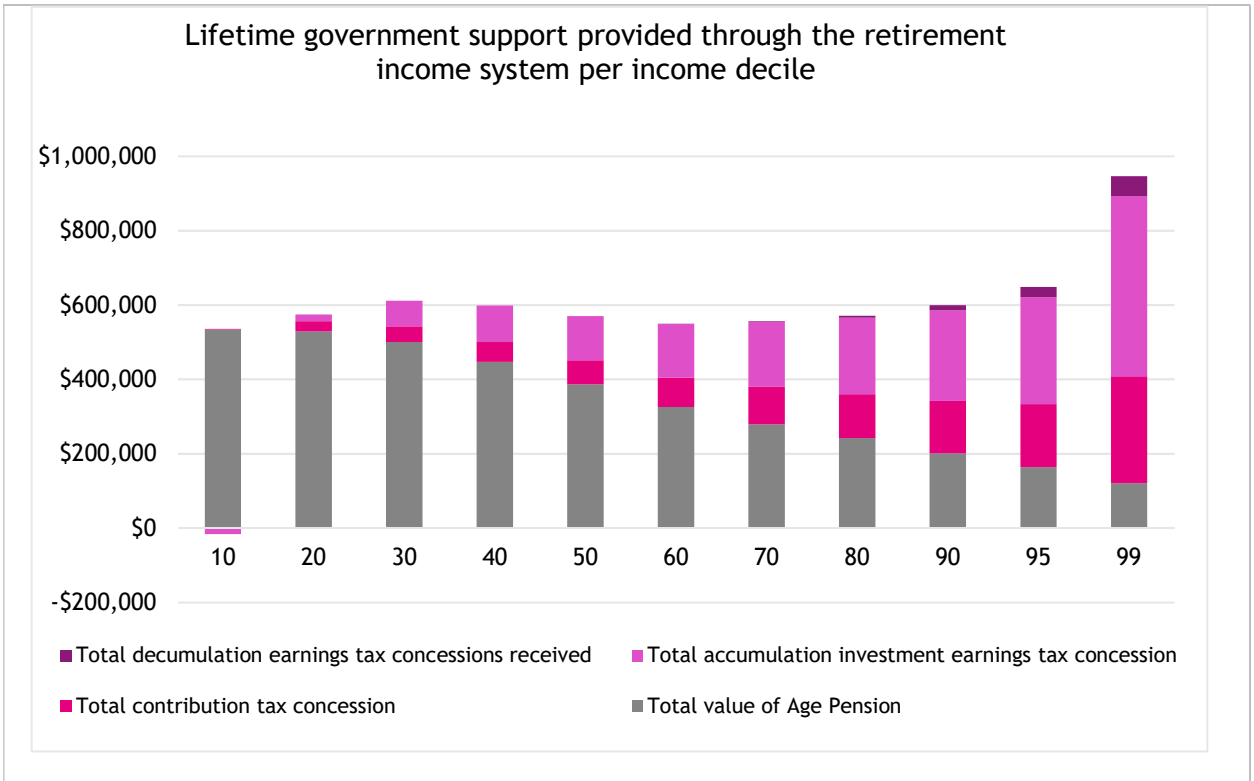
- varies between $516,000 and $611,000 in absolute terms (lowest at 10th and 60th percentile, with a peak around the 25th percentile and increasing from the 70th percentile and over),
- decreases from 78% to 41% as a proportion of total benefit.

Public support is broadly equal between the 20th and 90th percentiles of income. Public support is actually lower at the 10th income percentile than for nearly all other percentiles. Public support increases above the 95th income percentile. This suggests that public support could be better targeted: with increases for people below the 10th percentile of income and a reduction for people above the 95th percentile.

Public support provides an effective 'floor' benefit of about $570,000 across all income deciles. The flat level of public support is similar to a universal benefit, with variations provided by private savings.

Disaggregating the contribution of public support in our analysis reveals the roles of Pillar 1 and Pillar 2 – a chart very similar to that in the Consultation Paper. Within our modelled membership, the contribution of the Age Pension decreases as income increases, and becomes less than half the total benefit above the 70th percentile. The accumulation earnings tax concession becomes the largest source of public contribution above the 80th percentile.

Chart 4.2 - Composition of government support - tax concessions & Age Pension by income decile



Source: First State Super data and modelling.

See Appendix 2 for explanation of First State Super modelling. Chart based upon Member Model by Income. Key assumptions: single homeowner, median salaries for each age, salary indexation 3%, SG only, retirement age 67, real constant income to exhaust balance at age 89.

We extended this analysis further to investigate the interaction of Pillar 1 and Pillar 2:

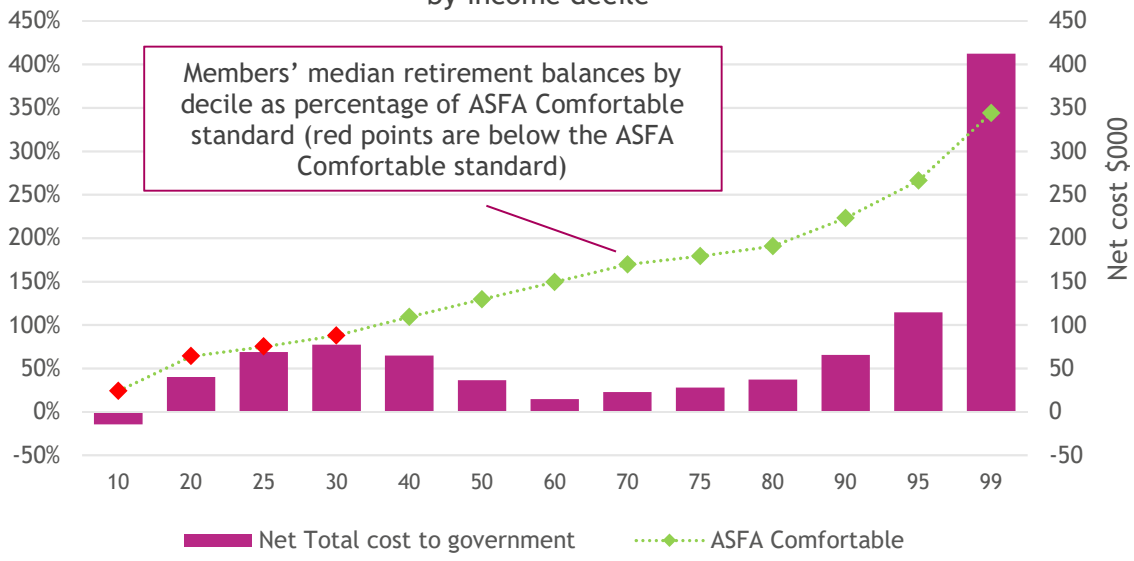
- Pillar 1 Age Pension is means tested, and
- Pillar 2 is compulsory in part to offset the cost of Pillar 1.

To do this, we modelled the *'net cost to government'* of the combined Pillars 1 and 2. This took the above analysis (Charts 4.1 and 4.2) and compared it to a scenario in which there would be no Pillar 2 savings and as a result all retirees would receive the Age Pension at the full amount. The 'net cost' would be equal to the cost to government in Pillar 2 (tax concessions on contributions and earnings), less the difference in Age Pension not paid (due to superannuation savings) and the means testing of the Age Pension.

The 'net cost' of the current system compared to one assumed to be reliant *only* on Pillar 1 (Age Pension) would be far lower than the total cost of Pillar 1 and 2. However, it displays the same shape with higher net government costs for the bottom and top three deciles, broadly level costs from the 20th to 90th percentile, relatively low public support at the 10th percentile, and high public support above the 90th percentile.

The following chart aligns the hypothetical net total cost to the government by income deciles against the ASFA Comfortable Standard for members of our fund. It shows that the net cost to government decreases when our modelled members begin to reach the ASFA standard. However, it increases again around the 75th income percentile. This suggests that the current settings of the super system (Pillar 2) are costing the government more at the top income deciles than under a scenario where all income groups would be paid the Age Pension.

Chart 4.3 - Scenario of net cost of government support decile



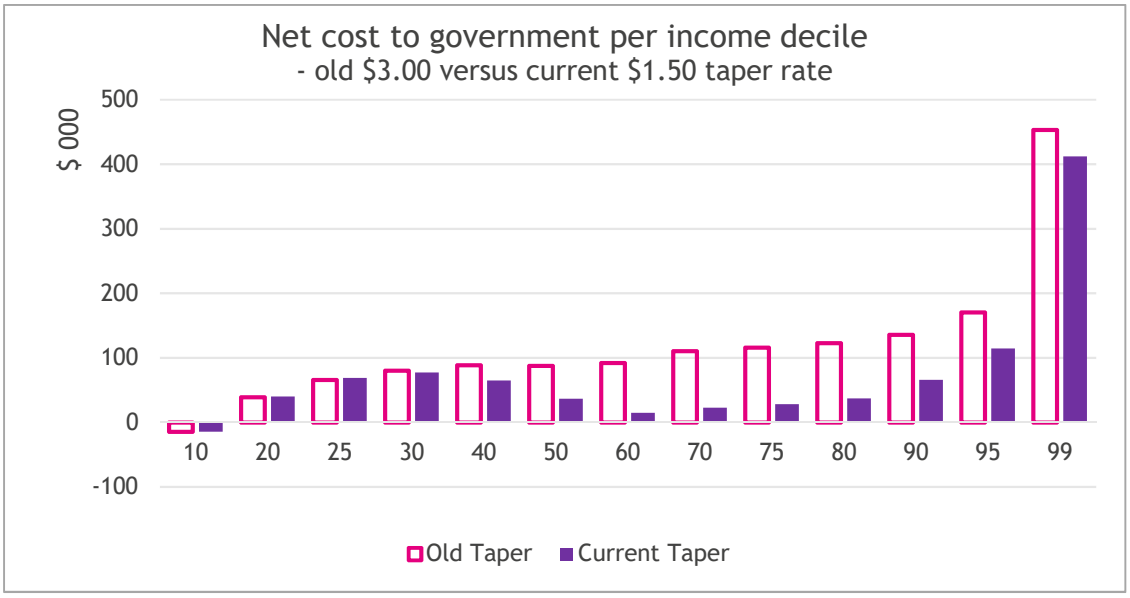
Source: First State Super data and modelling.

See Appendix 2 for explanation of First State Super modelling. Chart based upon Member Model by Income. Key assumptions: single homeowner, median salaries for each age, salary indexation 3%, SG only, retirement age 67, real constant income to exhaust balance at age 89.

Tax Concessions and the Taper Rate Clawback

Chart 4.4 below compares the net cost to government under each of the pre-2017 taper rates on the Assets Test for the Age Pensions and the current taper rates. The taper rate was reduced from $3.00 per $1,000 to $1.50 per $1,000 and we observe that it has made a significant impact on the incomes of the middle income deciles (our members).

Chart 4.4 - Impact of changes to taper rate on government costs per income decile



Source: First State Super data and modelling.

See Appendix 2 for explanation of First State Super modelling. Chart based upon Member Model by Income. Key assumptions: single homeowner, median salaries for each age, salary indexation 3%, SG only, retirement age 67, real constant income to exhaust balance at age 89.

As noted, while the change in taper rates improved the targeting of public support, it affected middle income retirees hardest and left generous tax concessions in place at the very highest percentiles. Chart 4.4 demonstrates that the taper rate does have a significant impact on the relative value of additional contributions for those whose balances do not rise above the Age Pension eligibility ceiling.

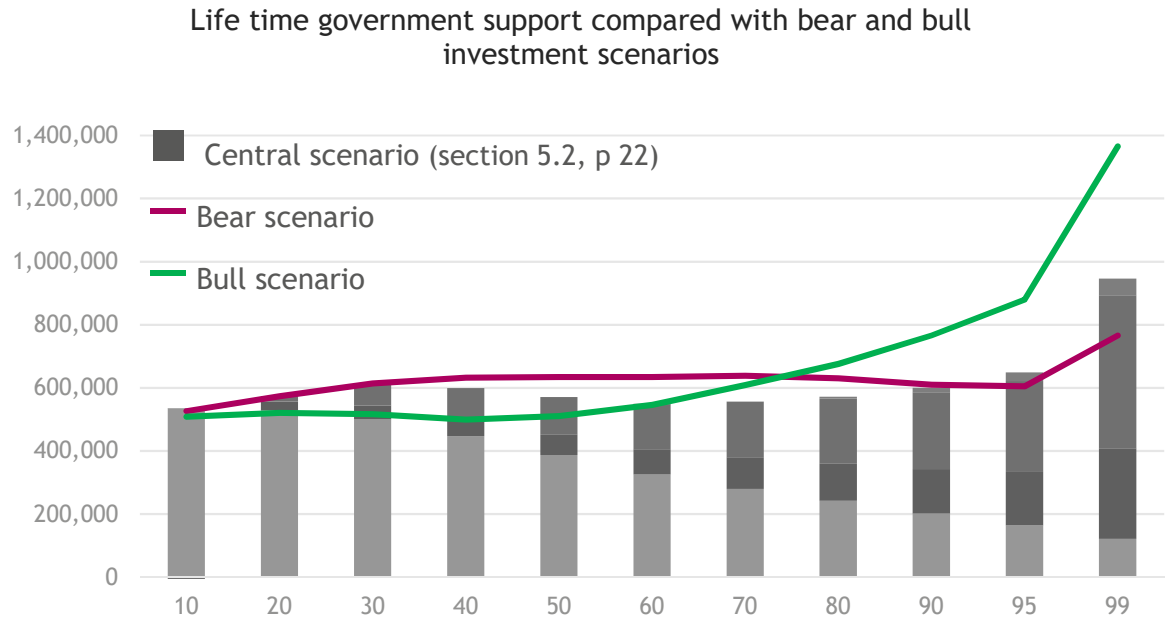
We note that the high benefits received by the 99th percentile and to some extent the 95th might not eventuate in reality as these members are most likely to change savings behaviour to reduce their tax burden (and hence cost to government) if the concessionality of super was to change. Further, not all members reaching the 99th percentile will be in that position for their entire working and retired lives - a portion will dip in and out according to income, savings and decumulation levels.

4.3 Impact of investment returns on government costs

Investment return scenarios have an impact on the cost to government. For both lower and higher returns, the effectiveness of targeting public support diminished.

We modelled a 'bear' and 'bull' scenario taking the 25th and 75th percentile of simulated returns for our central model discussed in section 4.2.

Chart 4.5 - Impact of bull and bear markets on



Source: First State Super data and modelling.

See Appendix 2 for explanation of First State Super modelling. Chart based upon Member Model by Income. Key assumptions: single homeowner, median salaries for each age, salary indexation 3%, SG only, retirement age 67, real constant income to exhaust balance at age 89.

Market scenario	Accumulation before age 60	Accumulation after age 60	Pension
Bear	4.63%	3.40%	4.22%
Central	6.25%	5.25%	5.75%
Bull	7.90%	7.08%	7.15%

For stacked column chart of bull and bear scenarios see Appendix 1.

Under our bear market scenario, the capped maximum Age Pension limits the ability to target those in need of most support. The highest level of public support is for those in the 50th to 70th income deciles in this scenario.

Under a sustained higher returns scenario, the tax concessions on investment earnings dominate. This exacerbates the regressive effect of these concessions and causes public support to increase as incomes rise above the 40th decile. Similar impacts across income deciles are found under the net cost to government analysis discussed above.

It may well be the case that the previous three decades of growth will not be repeated and that Australians saving and spending in retirement will face a prolonged period of lower returns.

With this in mind, moderate and well-timed changes to the main levers of targeting (taper rate and tax concessions) may be needed.

5 Member perspective

5.1 How far does individual responsibility go?

If "member is ultimately responsible" then the system needs to be simple and intuitive (Questions 4 and 25)

Behavioural economics suggests that people encounter great difficulty in deferring consumption and making decisions to save, discounting their future needs and savings value (hyperbolic discounting). As noted, 16% of our members make additional contributions. On this basis, it seems reasonable to assume that the majority of members are unlikely to be proactive in securing their retirement income.

In our view, expecting that all Australians will take a healthy and proactive degree of personal responsibility for their retirement incomes is unrealistic for the majority.

For individuals, adequacy in retirement will be relative to their lifestyle, expenditure and savings habits during working life, and will be synonymous with quality of life, health and well-being in retirement. Helping individuals to make any necessary adjustments to their retirement income is likely to be a key role for funds in providing financial and behavioural guidance.

This section looks at how members help themselves through voluntary contributions, and at how advice can help members deal with an extremely complex set of systems.

***Voluntary contributions** (Question 10)*

The consultation paper considers the role of incentives in influencing savings decisions.

The main incentive in the accumulation phase is tax concessions given to voluntary contributions, spouse contributions and co-contribution payments. (We see the LISTO as a tax equalisation measure.)

The evidence on the use of these tax concessions and co-payments supports an understanding of them as subsidies rather than incentives. The tax incentives support groups which are already pre-disposed to take advantage of them, and it appears that they are supporting those with higher incomes who are already likely to save, rather than incentivising additional saving. We do not suggest removing these concessions, but only recognise they have little value in changing savings behaviour across all cohorts.

Our internal research and collaboration in the "How Australian Saves" research, and other pieces of analysis, find that voluntary contributions are strongly aligned with income and age.[22] The charts over page provide average annual contributions by age, balance and gender.

In the "How Australian Saves" analysis, an average 12% of all members across three participating funds (First State Super, Sunsuper and VicSuper) made voluntary contributions; approximately 74% of these were over 45, and 50% were over 55. Of those making additional contributions, 40% earned over $100,000 per annum.

There is evidence that other nudges may be more effective in driving additional savings within superannuation, such as providing members with projections of the retirement income they could expect, based on current balance, contributions and history within the fund.

We conducted a small trial with our members in 2016, and found consistent results with those members who explored the projections being more likely to make additional contributions or roll-ins.[23]

This suggests that the meaningful articulation and communication of what additional savings mean for increasing retirement income is an effective incentive for members, especially when supported by

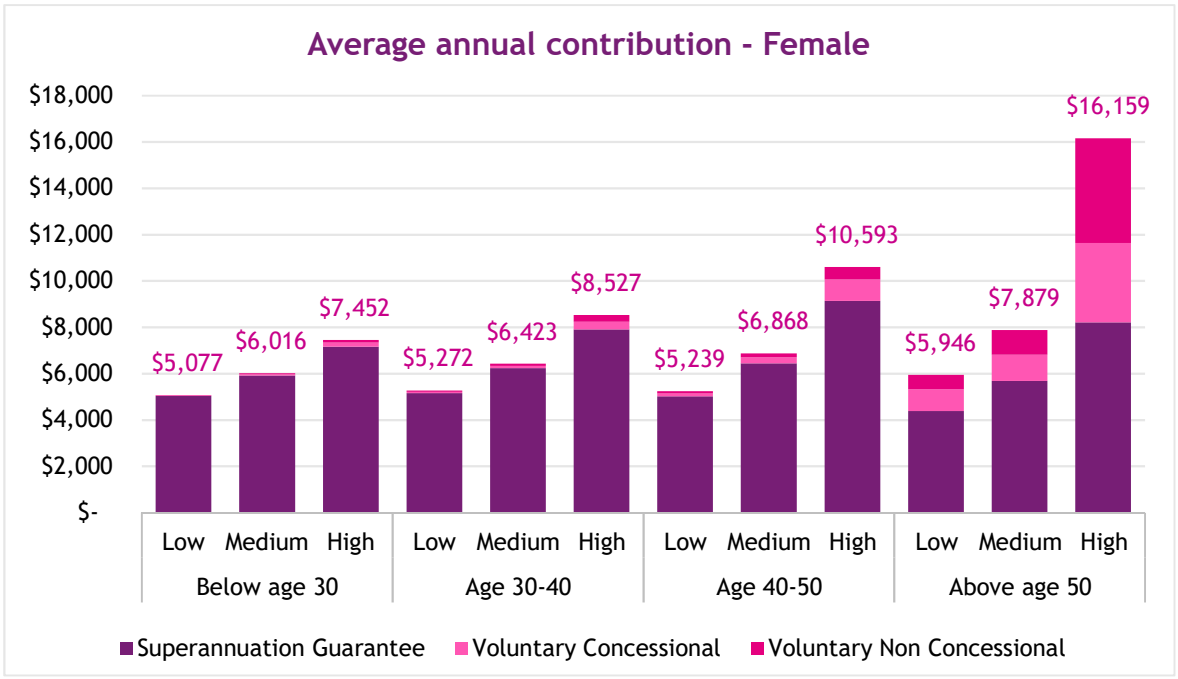
[22] "How Australia Saves", Vanguard 2019, pages 5 and 22-24

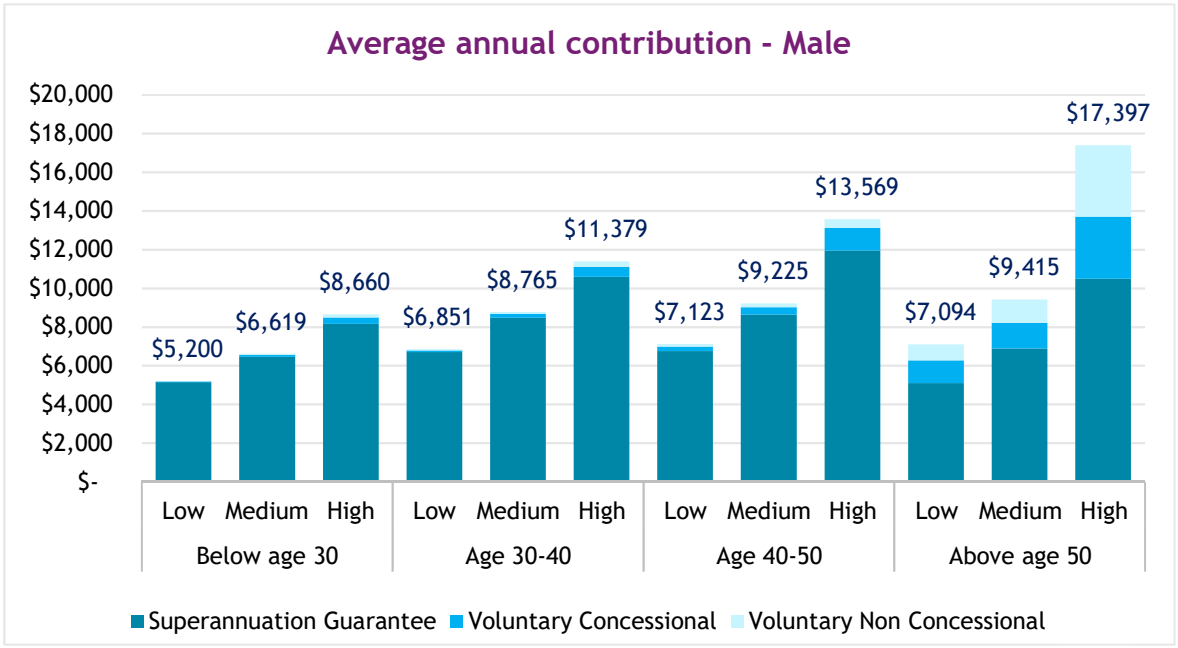
[23] We conducted a pilot to test how members responded to retirement income projections in 2016; while this targeted only 9,000 members, we found once members engaged with the exercise, they were likely to make additional contributions and rollovers.

interactive tools. While such engagement does come at some cost of funds in terms of implementation, unlike tax concessions it has no cost to the public purse.

The following charts show current mandatory and additional contributions by gender, age group and balance tertiles: there is a clear increase in savings in the lead up to retirement.

Chart 5.1 – types of contributions by age and gender





Source: First State Super data and modelling.
First State Super members' contributions - Low, medium, high are balance tertiles within each age bracket
Data: First State Super, MySuper active members, data as at 30 June 2018, contributions for FY18

5.2 Simplicity via advice and guidance

(Question 25)

The government could introduce a fourth principle of simplicity: if the expectation is that the "member is ultimately responsible"—noting that they already bear the major risks—then the system (government and funds) needs to be simple and intuitive. *(Question 8)*

Seeking simplicity may be well-nigh impossible in the face of current complexity; especially as each regulatory variation makes systems and processes increasingly complex and difficult to manage. The interactions between superannuation, social security and taxation play out when members move from saving to retirement, and then later into aged care. We are aware of, but not able to comment on the dilemmas of those with dementias or other debilitating conditions which erode individuals' agency and control.

Complexity affects every aspect of superannuation and retirement, from contribution and balance limits; to product design, administration and delivery systems and platforms; and help, information and advice. Attempts to improve tailoring and relevance for members are often caught in this dilemma.

Simplicity and fairness are not necessarily good companions. Efforts to simplify the current system are likely to exacerbate inequalities by further focusing on a singular average view of members rather than taking a cohort lens to assess and consider the implications for the most vulnerable (discussed in Section 3.5).

Trying to resolve the difficult trade-off between simplicity and fairness is likely to require costly total redesign of the system. Instead, we are of the view that greater efforts should be made to reduce the perception of complexity from the member's point of view. Advice, information and guidance have a key role to play in facilitating a simpler retirement path and experience for retirees.

> Regulations should be developed to support greater provision of personalised and tailored information that is factual in nature to support funds in simplifying the member experience.
>
> We propose that a multi-disciplinary working group of industry and government experts be formed to develop safe, simple digital advice and information tools for members, and advise on suitable guidelines which members can rely on.

In future, we expect that digital tools and guidance will increasingly play a key support role for members, and that over time full personal advice will be used by people with more complex needs or who are willing to pay for personal support. *(Question 4)*

Unlike the defined benefit structure where governments and employers shouldered the risks, members in the defined contribution regime are taking on nearly all the risk, including regulatory risk of changing rules and complexity. This makes it difficult for members to act responsibly when saving for retirement is often a remote eventuality, largely irrelevant to the immediate pressures of daily life.

> Frequent adjustment to the rules surrounding superannuation are eroding public trust and creating uncertainty that makes it more difficult for Australians to plan for, and have confidence in, their retirement. The Government should identify and clearly communicate its intentions for the future of superannuation and seek a bilateral commitment to a prolonged period of regulatory certainty.

As with banking services that can be reasonably straight forward, some people still choose *not* to navigate common tasks for themselves. Others love being self-directed, others collaborate, and some have a preference to delegate partially or in full. The system should retain sufficient flexibility that it allows members and retirees to delegate their affairs to an adviser, whether because they are time poor, lack confidence or feel inadequate (or indeed are incompetent for health or other reasons).

We note there are some apparently simple activities which can become unusually difficult due to current regulations. Two particular examples include the requirements to:

- Complete a Work Test form (manual) for any contributions from age 65, which members find confusing and annoying, especially if they are having SG paid on their behalf by an employer, and
- The need to commence a new account based pension when adding new money to a pension, such as for downsizer contribution or sale of small business or other contribution. This requirement is now redundant with the introduction of the Transfer Balance Cap and prescribed limits on contributions of all types.

We suggest removing the Work Test and allowing new contributions to account based pensions.

5.3 Need for advice into retirement

(Question 23)

The role of advice in the retirement system is significant, though the benefits can be as much intangible as tangible or financial. A number of internal and external studies confirm that members value the guidance and coaching they receive from their adviser, as well as budgeting, planning, and managing interactions with social security and taxation.

There are structural and capacity limitations to making good guidance and advice widely available, even though these are widely recognised as necessary for many pre-retirees and retirees. We note the following:

- Funds have limited access to a member's complete financial picture to help them with digital planning calculators, unless a member either seeks full financial advice (whether face to face or by phone), or they are asked to provide more detailed personal financial information to their calculator simulations,
- The legal definitions of advice can hamper members being able to seek advice—many just want help, but are not aware of the gradations of information (general advice), limited advice and full advice,
- The current ASIC regulations permit providing income / benefit projections through a tightly limiting Class Order which can be relied on when the projection is sent with the member's annual statement; alternatively, projections are accompanied by a Statement of Advice (SoA) which is more tailored to the member's situation and needs, and their investment options, but this is a more complex and expensive undertaking for the provider,
- The logistics of providing tailored advice for each member mean that funds will increasingly need to rely on digital services to help members:
  - we have approximately 225 planners to help a total of 209,000 members aged 55 and over in Accumulation, and some 80,000 retired persons,
  - of those members in pension phase, we estimate that 67,000 have received advice, especially those who came through the defined benefit offerings at NSW State Super.

Value of advice *(questions 22 and 23)*

The minimum drawdown rates, in the absence of any other information or guidance, do inform member spending decisions in retirement (as shown in our member drawdown analysis which will be provided in a supplementary submission to follow).

When minimum drawdown rates are used by members as de facto drawdown rules, instead of being treated as a legal minimum requirement, they can act as an anchor for decisions and lead to less than optimal outcomes for retirees.

Two recent pieces of research investigate alternative drawdown approaches, which could be provided either by a financial adviser in the context of broader retirement advice or by an automated digital solution, albeit leveraging more member data than is usually available.

The value of financial advice for Australian retirees[24]:

- Compares three drawdown scenarios for a retired homeowner couple with $500,000 in retiring balance:
    1. minimum drawdown rates,
    2. one-off advice/guidance at retirement to achieve constant real consumption from their retirement assets and the Age Pension,
    3. annual advice on consumption based on calculation of affordable drawdown using expected investment returns.
- In both advised scenarios, retirement incomes are higher, which leads to higher individual well-being in retirement (lifetime utility), although with lower terminal wealth at age 95.
- However, under an ongoing advice scenario, the retirement income is increased together with a reduced chance of relying on the Age Pension.

Spend your decennial age: a rule of thumb for retirement[25]:

- Compares minimum drawdown behaviour with results of dynamic programming calculations that produce optimum drawdown rates by age and asset balance.
- The research shows that simple rules can be derived for guiding drawdown behaviours that provide greater welfare in retirement than the minimum drawdown rates. These rules range from simple rules of thumb, to more detailed rules for sophisticated retirees and financial planners.
- The increase in personal well-being increases as the modelled balances of $250,000, $500,000 and $750,000 increase.

The value of advice can be seen in the setting of a smoothed, slightly higher income path and, through income coaching, a more contained set of outcomes during retirement (minimising the potential for capital exhaustion or ruin and producing a more predictable outcome for members).

Our member research supports the view that most retirees can adapt to some variation in income without undue stress[26]. Face to face interviews and focus groups conducted by our fund demonstrate that individuals can tolerate what they see as minor changes in income, but they are very anxious about major changes in capital values and hence long-term income. This aligns with anecdotal evidence from our financial planners.

It is worth noting that the role of an adviser is also to assure clients they are on track, help manage their anxiety and make adjustments as circumstances change e.g. divorce, inheritance, injury etc. It is essentially to be a little like a financial coach because real life seldom runs to a formula.

5.4 Barriers to members seeking advice

Cost of advice is a barrier for members, partly because the value of financial advice and what the service actually includes is often not understood. This influences the perception of value derived from

[24] Wu (2018). The value of financial advice for the Australian retirees. Presented at the 26th Colloquium of Pensions and Retirement Research. Available at: http://cepar.edu.au/sites/default/files/1-Wu.pdf

[25] John De Ravin, Estelle Liu, Rein van Rooyen, Paul Scully and Shang Wu (2019), Spend your decennial age: a rule of thumb for retirement. Presented to the Actuaries Institute Actuaries Summit 3 – 4 June 2019. Available at https://actuaries.logicaldoc.cloud/download-ticket?ticketId=c43c219a-8d0f-4a1d-8b03-19f4cdad472d

[26] First State Super product concept testing, 2017. Some members indicated they could tolerate 10% variability in income; this may depend on whether they have set a constant dollar pension payment (so their capital is more affected) or whether they are drawing down at the MDD, which better preserves their capital.

this professional service compared to other more tangible services such as paying an architect to plan a home to meet specific needs, or seeing a medical specialist.

At present most members can pay through their superannuation, although this support for members may be removed by the Royal Commission recommendation 3.2 which would prevent MySuper members from being able to use their super to pay for advice. Clients who pay for advice outside super do not get a tax deduction, which they effectively do for fees through super.

Members may have a high felt need for help or advice, however, a fear of being exposed coupled with lack of knowledge about the value they can gain from financial advice, and anxiety about costs may deter them from seeking this assistance. Low net worth clients may believe they do not need advice because they will qualify for the full Age Pension. However, prior to retirement there may be strategies that substantially improve their position, such as salary sacrifice and personal deductible contributions, Transition to Retirement, spouse contributions, super splitting etc.

It is not a level playing field. Clients who can afford or are prepared to pay for advice can certainly reap the rewards, especially as they get closer to retirement. Clients who do not get advice will not understand the benefits or strategies that they could use to build some additional wealth, including:

- Reduce tax on income by redirecting a portion to superannuation by salary sacrifice,
- Manage super contributions and Age Pension eligibility for a couple where one is retired and the other working, which can add significantly to income,
- Consideration of products such as life annuities which offer greater income certainty, 40% asset test exemption and improve pension for asset tested clients upfront, but may not benefit all members in the long term. Advice takes into account both short- and long-term issues,
- When to downsize: clients who downsize their home early in retirement may be disadvantaged under the asset test. An advised client can have a sensible discussion around the best time, if at all, to downsize. The home is asset test exempt and therefore one of the best places to build wealth for an age pensioner and pass tax free to the estate,
- Clients need to understand how gifting rules work so as not to disadvantage themselves,
- Defined benefit clients need advice regarding how to maximise their benefit, factors such as length of service, final salaries, average salaries and selected contribution rates can all impact benefit; they often have to consider any lump sum versus pension decision,
- Some retirees are not aware of the Seniors Health Care Card when they are eligible; most are individuals who were usually not eligible for Age Pension due to assets test,
- Advice also provides reassurance that the member might be better placed for retirement than originally thought—this is a big relief for many members,
- Some clients may choose to work for longer (if possible) when they see that their retirement objectives are currently unaffordable and recognise the boost this can have on their income in retirement,
- Part time work vs full time can be considered and modelled.

Legislation and rules affecting retirees that make life without advice very complex:

- Social Security Act,
- Tax Act – contributions,
- SIS Act – work test rules,
- Treasury Law amendments, limits to superannuation contributions, and total superannuation balance and transfer caps (limits to how much can be held in super or retirement phases),
- Proposed changes to increase age to 67 years before work test required to contribute to super,
- Changes arising from annual Federal budgets, and other regulatory changes.

5.5 Systemic barriers to advice

At a practical level, there are many challenges and barriers in providing advice to people who need help, including:

- Legal limitations on what "advice" is and who can provide it, which is not all well understood by members. These limitations also make it difficult to allow a member to switch from general advice on some topics and personal advice on others,
- SOA readability for clients; these are lengthy to ensure no retrospective issues from ASIC and AFCA i.e. transparency requires detailed content, and is a potential barrier to providing useful digital advice to members.
- The recent reduction in the number of firms and planners will be a dilemma for policy makers who want to see members are well equipped to manage their finances in retirement.

5.6 Aged care advice

(Question 24)

There is an interplay between aged care, superannuation savings and home ownership, which essentially assumes that home equity (or any remaining super) can fund the deposit for aged care. We understand that some retirees limit lifestyle spending as precautionary saving for aged care.

Retirement villages also take a large ingoing deposit (often assuming the sale of the previous home) under different financial structures. The aged person is generally not in 'crisis' in the move into a village, and while this is often much more of a lifestyle choice, it can be challenging for the person navigating the purchase and sale contracts.

As noted in our comments on housing, there is also a dilemma for older women who may be asset rich through home ownership, but income poor. While the economic solution might be to sell and relocate, this can come at a high cost to family and community support, and familiar settings which are especially important if the person is challenged by dementia or reduced mobility.

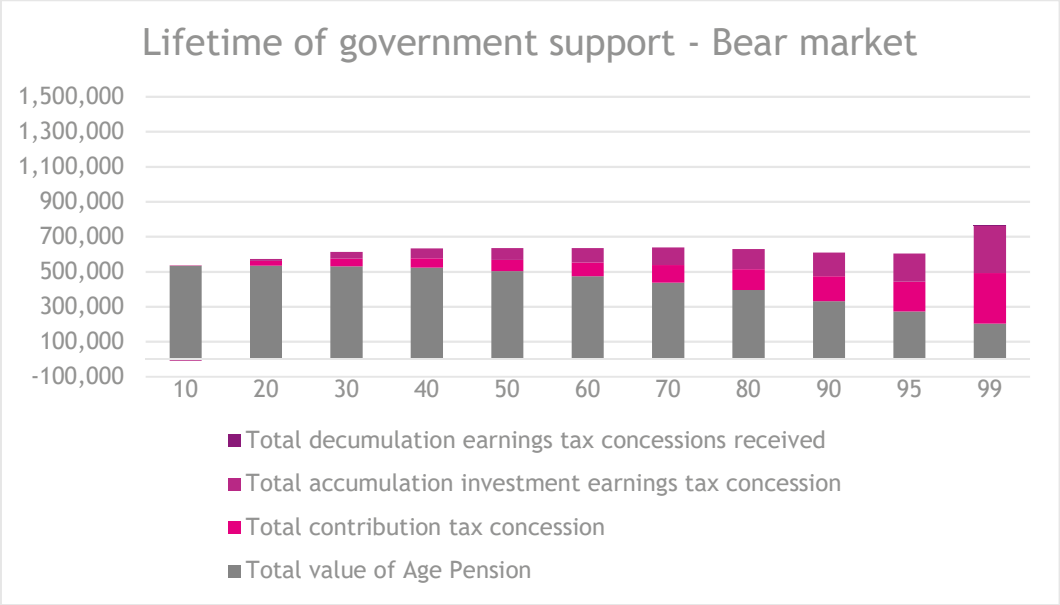
Our fund offers both legal and aged care financial advice to members through specialised advice services, which members pay for out of pocket. The aged care financial advice assists members, either for themselves or their parents, in navigating the financial structures and contracts that underpin aged care services and facilities.

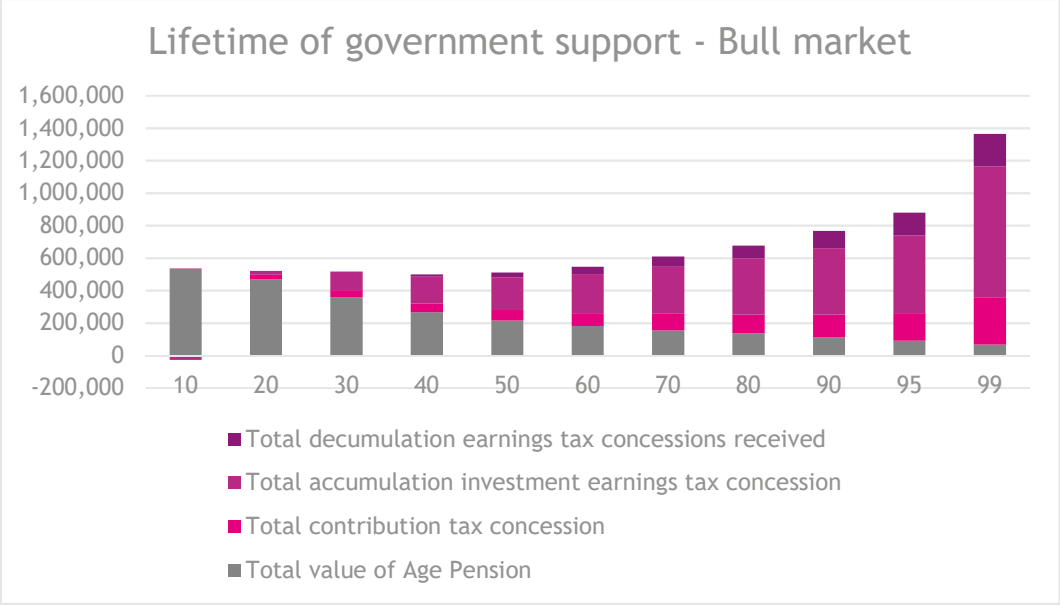
This service is often sought at crisis times when an aged parent has suddenly declined. It is highly valued by members who frequently find it difficult to find the relevant information, make informed decisions and choices for their loved ones. The open seminars we hold on aged care are similarly valued.

The advice service and seminars point to inherent complexity, difficulty in understanding the financial structures, high degrees of variability in offers, opaque contracts and uncertainty as to quality of offer.

Overall, we think that simplification of the financial structures and legal contracts that support aged care is warranted, along with an assessment of value for money for services offered.

Appendix 1 - Lifetime government support under investment scenarios





Source: First State Super data and modelling. See Appendix 2 for explanation of First State Super modelling. Chart based upon Member Model by Income. Key assumptions: single homeowner, median salaries for each age, salary indexation 3%, SG only, retirement age 67, real constant income to exhaust balance at age 89.

Market scenario	Accumulation before age 60	Accumulation after age 60	Pension
Bear	4.63%	3.40%	4.22%
Central	6.25%	5.25%	5.75%
Bull	7.90%	7.08%	7.15%

Appendix 2 - Modelling and assumptions

The majority of data in this submission is produced using three models

- Membership population model
- Member model by income
- Cameo model by gender
- The full assumptions for each of the three models are provide below.
- Where data is presented not based upon these models, modelling and assumptions are provided with the data.

1. Membership population model

This model is used for charts:

- Chart 2.2 - Retirement Adequacy % of ASFA Comfortable Standard for median members, homeowners v non-homeowners, page 10. This chart uses First State Super member data as at 30 June 2017, page 10.
- Chart 3.4 - Adequacy retirement income across income deciles, page 20.
- Chart 3.5 - Projected balances as % of ASFA Comfortable, page 21.

This is a model of our population of our members who are making contributions and have been with the fund more than 12 months as at 30 June 2019 (except for the housing chart on page 10).

All members below age 65 had their balances projected to age 65 on the below assumptions, at which age they were assumed to retire. All members over the age of 65, were assumed to retire immediately.

Members' current contributions (both SG and additional contributions) were assumed to increase at the rate of salary inflation and increase in line with the legislated levels of SG increase.

The main assumptions adopted for the calculations were:

Membership population model	General assumptions
Age of retirement	65
Family status	Single
Homeownership	Yes
Contribution	Members' current contributions amount (both SG and additional contributions)
Contribution projection	Contribution inflated by 3% (same as salary) and legislated SG schedule
Contribution tax	15%
Salary estimation	Modelled salary from SG contribution
Salary projection	Salary inflation model at 3%
Investment returns: FSS MySuper • Accumulation to age 59 • Accumulation age 60+ • Pension to age 59 • Pension age 60+	 6.25% 5.50% 6.75% 6.00%

Membership population model	General assumptions
Admin fee: • Accumulation – fixed • Accumulation - percentage	 $52 0.15%
• Pension	0.40%
Insurance Premium pa	As per insurance category
CPI	2.50%
Cash rate	2.50%
ASFA Comfortable Income	$43,255 (as at March 2019)
• ASFA Comfortable lump sum at 65	$408,270
• Drawdown pattern	ASFA Comfortable in return terms
• Retirement income deflator	CPI 2.50%
• Projected age of death	94
Replacement Rate	Projected income in retirement divided by projected salary at retirement (age 65)

2. Member model by income

This model is used for all charts in Section 4 (Charts 4.1-4.5, pages 25-29) and Appendix 1.

This model provides member outcomes over their full working life and retirement by income decile. These deciles are based upon median salaries for each age from age 25 to age 67.

The salary deciles are derived from SG contributions from our members who are making contributions and have been with the fund more than 12 months as at 30 June 2019.

The model is used to estimate the total private and total public funding of an individual's retirement benefit, composed the sources shown in the table below.

Total private funding is sum of below	Total public funding is sum of below
• Total contributions made (assuming only SG for materiality) • Total accumulation earnings received • Total decumulation earnings received	• Total contributions tax concessions received • LISTO included but not Div. 293 (for materiality) • Total accumulation earnings tax concessions received • Total decumulation earnings tax concessions received • Total Age Pension payments received

The model includes earnings received on tax concessions in both accumulation and decumulation. However, these earnings are not counted in the public or private cost breakdown as it is difficult to clearly categorised them as either public or private. They are not included in the 'net cost to government' estimates.

Member model by income	General assumptions
Age of retirement	67
Age of end of retirement	89
Family status	Single
Homeownership	Yes
Contribution	SG only
Contribution projection	Legislated SG schedule
Contribution tax	15%
Salary estimation	Modelled salary from SG contribution
Salary projection	Salary for each decile in age bracket inflated at 3%
Investment returns: FSS MySuper • Accumulation to age 59 • Accumulation age 60+ • Pension	 6.25% 5.25% 5.75%
Admin fee: • Accumulation – fixed • Accumulation - percentage	 $52 0.15%
• Pension	0.40%
Insurance Premium pa	$242
Drawdown pattern	Constant in real terms to exhaust balance at age 89

All tax and age pension parameters are indexed at the salary increase rate.

Membership salary profile		
Age band	Average salaries	Average salaries
	First State Super $	ABS Census for comparison $
15-19	12,195	14,846
20-24	37,224	35,426
25-34	68,922	61,111
35-44	78,409	75,635
45-54	78,950	75,811
55-64	66,713	67,582
65-74	49,245	39,623
75-84	31,365	31,453

Capital market scenarios

We used the following returns to study the impact of different investment returns. The bear and bull numbers are derived from the bottom and top 25th percentile of 1,000 simulated investment returns.

Market scenario	Accumulation before age 60	Accumulation after age 60	Pension
Bear	4.63%	3.40%	4.22%
Central	6.25%	5.25%	5.75%
Bull	7.90%	7.08%	7.15%

3. Cameo Models by Gender

This model is used for

- Table 3.1 Improved outcomes with increased SG for full working life, page 17
- Tables in section 4.1.

Cameo Models by Gender	General assumptions
Age start working and contributing	25
Age of retirement	67
Age of end of retirement	93
Family status	Single
Homeownership	Yes
Contribution	Average SG contribution by age
Contribution tax	15%
Salary projection	Modelled salary from SG contribution
Investment returns: FSS MySuper	
Accumulation to age 59	6.25%
Accumulation age 60+	5.25%
Pension	5.75%
Admin fee	
Accumulation fixed	$52
Accumulation - percentage	0.15%
Pension - percentage	0.40%
Insurance Premium pa	$250
CPI	2.50%
Cash rate	2.50%

Career break parameters

We used the following parameters in the analysis where we study the impact of career breaks.

Career break start age	27
Years of not working	2
Part-time work start age	29
Years of part-time work	4
Part-time work load	50%