Griffith UNIVERSITY
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Queensland, Australia

Retirement Income Review Submission

Griffith Centre for Personal Finance and Superannuation

The Department of the Treasury
c/- Retirement Income Review Secretariat
Langton Crescent
PARKES ACT 2600

Attention: Mr Robb Preston

Tel: 02-6263 4186

3 February 2020

Dear Retirement Income Review Independent Panel Members,

Re: Submission to Retirement Income Review (Consultation Paper)

This document serves as a submission to the Department of the Treasury ("The Treasury") Retirement Income Review (RIR) (deadline date of 3 February 2020) from the Griffith Centre for Personal Finance and Superannuation, Griffith University, Queensland. The Centre is a source of expertise and excellence in four distinct streams: Personal finance and superannuation; Investment; Professionalisation of financial services; and, Financial education. This submission was co-authored by the following researchers:

- Professor Robert Bianchi
- Professor Michael Drew
- Dr Kirsten MacDonald
- Dr Tracey West
- Dr Osei Wiafe

This document summarises our research findings which are related to the issues raised in the RIR Consultation Paper released in November 2019. The submission brings together our key findings co-authored by the contributors. Please note the research we cite from Griffith researchers in this document has been published in **independent, peer reviewed research journals.**

The structure of this document is based on the broad issues outlined in the RIR consultation paper, namely: Adequacy, Equity, Sustainability and Cohesion of Australia's Retirement System. The evidence is summarised in the document along with the related citation(s) and the full details of the journal publications reported at the end of this document. We also provide a short biography of the contributors. To visit the Centre website (which contains the complete list of independent, peer reviewed journal articles published by all Centre members), go to: https://www.griffith.edu.au/griffith-business-school/centre-personal-finance-superannuation

Please contact us via email on gcpfs@griffith.edu.au or (T) 07 3735 4272 if you require further points of clarification.

Yours faithfully,

Professor Robert Bianchi

(Centre Director)

Adequacy (of Australia's Retirement System)

Consultation Question 10:
What should the Panel consider when assessing the adequacy of the retirement income system?

There are a number of challenges with assessing the superannuation system based on adequacy. A number of well-documented measures of retirement adequacy including meeting pre-retirement income levels (Skinner, 2007) and different levels of income replacement rates are discussed extensively in the literature. In Australia, the consensus suggests that income replacement in retirement should be 60–65 per cent of pre-retirement income (Senate, 2002). There is also the well-known ASFA Retirement Standard, which provides the annual budgets needed to fund a 'modest' or 'comfortable' retirement lifestyle (ASFA, 2019). With the myriad of retirement adequacy measures, one thing is clear, the age pension plays a significant role in attaining adequacy of retirement incomes. This is explained in the study of Bianchi, Drew, Walk and Wiafe (2016). The study posits that for most Australians, adequacy cannot be achieved only through retirement incomes from super, but in conjunction with the age pension and a more complete system interaction that includes elements outside the scope of this review. Bianchi *et al.,* (2016) goes further to introduce the retirement adequacy beta; which illustrates the contribution rates required to attain the ASFA comfortable retirement standard at different ages in retirement. This shows that a 'comfortable' retirement remains elusive unless contribution rates are increased, or retirement is deferred. The other adequacy measure analysed is the life expectancy adjusted retirement measure; which adjusts income levels based on the variation in life expectancies of different retiring cohorts, by gender and indigenous status. An investigation of the differences in retirement outcomes between gender and indeed across indigenous and non-indigenous Australians reveal deeper challenges in the system. This leads the study to concede that improving lifetime outcomes for indigenous Australians is a significant public policy issue; one that requires many more policy levers than those available to financial economists.

In conclusion, the broader drivers of retirement security (including issues such as life expectancy, aged care, health care and supporting social services) have a part to play in measuring retirement income adequacy. An adequate retirement income should reflect several things, not all of which are easily measurable. Therefore, stating a minimum income level or a proportion of preretirement earnings may pose further challenges, due to the subjectivity of the measure and the impacts of an individual's circumstances.

Consultation Question 11:
What measures should the Panel use to assess whether the retirement income system allows Australian to achieve an adequate retirement income? Should the system be measured against whether it delivers a minimum income level in retirement; reflects a proportion of pre-retirement income (and if so, what period of pre-retirement income); or matches a certain level of expenses?

We agree with the consultation paper that the variation in the indexation of income and expenditure, patterns of consumption needs in retirement and characteristics of individual and government support means there is no one-size-fits-all replacement rate or income benchmark (see for example, MacDonald, Bianchi and Drew (2019)), thus we contend that a

variety of adequacy measures, both absolute and relative, need to be used. The importance of utilising multiple measures lies in the common findings and implications of retirement adequacy studies.

Retirement adequacy studies in Australia, New Zealand (NZ) and abroad highlight common issues of low contribution rates and overly conservative default asset allocations. There is a need to encourage default and conservative investors to move towards higher equity allocations to improve, in some case significantly, retirement outcomes. To effect such a change relies on investor education about asset allocation, fund choice and contribution rates. Financial advice influences the proportion of growth assets in a portfolio (Zhang, 2014), but only 1 in 4 Australians seek financial advice (ASIC, 2019). MacDonald *et al.,* (2019) provides an international example of employing multiple measures of retirement adequacy:

- Consumption adequacy (absolute) benchmark: The benchmarks were determined by calculating the accumulated savings required at age 65 to afford a (i) basic and (ii) more comfortable level of retirement expenditure in NZ using the Matthews (2015) definition of 'No Frills' and 'Choices' of retirement expenditure in NZ as real-world benchmarks for consumption adequacy, similar to the ASFA Modest and Comfortable benchmarks, but which also incorporate options such as regional versus urban or single versus shared living.
- Income adequacy (relative) benchmark: After acknowledging the wide range in replacement rates in the literature and practice, a 67% replacement ratio was employed following Blake *et al.,* (2001).

The major findings, both published and non-published, are not sensitive to the choices made in the calculation of the chosen consumption (absolute) benchmarks (e.g. single versus shared living arrangements), nor do the results differ by the retirement adequacy measure employed. However, we recommend the use of *multiple retirement adequacy measures* is important given the nature of the findings and their implications.

- Similar to Australian results (e.g. Basu and Drew (2010)), good retirement adequacy outcomes occur compared to any benchmark when the asset allocation to equities increases with little increase in retirement shortfall risk.
- The majority of simulations meet the lower absolute ('No Frills') target for a single retiree. The minimum contribution rate is simply not high enough to accumulate sufficient savings to sustain a higher absolute ('Choices') level of retirement expenditure, regardless of the investment strategy employed.
- All strategies fall short of a 67% replacement ratio (which was somewhat higher than the 'Choices' level of retirement expenditure) with conservative asset allocations reporting the largest retirement income gap while equity concentrated portfolios report the smallest gap in retirement adequacy.

If a major implication of retirement adequacy studies is the need for further information through education and financial advice for investors to address low contribution rates and default or overly conservative asset allocations, there is a need to use multiple adequacy measures appropriate to the relevant institutional context to:

1. ensure robust findings despite the simplifications or choices that may have to be made in selecting/calculating measures of adequacy;
2. provide different ways for investors or their financial advisers and policy makers to make meaning of the results, including aspirational wealth accumulation targets, in light of varying levels of financial literacy and capability and the presence of a variety behavioural biases; and
3. increase investor confidence in their move towards higher contribution rates or higher equity weighted investment strategies through convergence of results across various adequacy measures.

Indeed, our range of quality peer reviewed articles were requested by each journal's reviewers to incorporate additional measures of adequacy beyond the multiple measures already employed in order to be satisfied their various audiences would appreciate the findings of these important retirement adequacy studies.

Consultation Question 12:
What evidence is available to assess whether retirees have an adequate level of income?

The work of Bianchi, Drew, Walk and Wiafe (2016) analysed retirement adequacy for Australian workers, with comparisons made between indigenous and non-indigenous workers as well as gender differences. Simulations were developed for workers on median incomes over a continuous 40-year working life, with a 9.5% contribution rate, and with the assumption that historical stock and bond returns can be replicated in the future. We feel these were heroic assumptions. Our results showed that Australian workers can attain a retirement income which represents the ASFA Modest standard; however, the Age Pension is required to improve the standard of living in retirement up to the equivalent of ASFA Comfortable and to achieve a 66% income replacement. At the time of writing, we calculated the present value of wealth required by employing the annuity equivalent income for life using the Challenger Limited annuity rates at the time. In 2016, a retiree would need to invest $490,000 and $890,000 in superannuation savings to achieve an income stream equivalent of 'ASFA Modest' and 'ASFA comfortable', respectively. In 2016, the Australian government 10-year bond rate traded in the range between 1.82% to 2.87%. As at Thursday 30th January 2020, the Australian government 10-year bond rate is quoted at 0.97% which is approximately 1 to 2 percentage points lower than in 2016. This means current annuity rates are lower than in 2016 as expected returns for both 'risk' and 'defensive' assets have declined even further. As a consequence, superannuation nest eggs accumulated today need to be larger than in 2016 in order to attain the same levels of retirement income.

Equity (of Australia's Retirement System)

Consultation Question 14:
What factors and information should the Panel consider when examining whether the retirement income system is delivering fair outcomes in retirement? What evidence is available to assess whether the current settings of the retirement income system support fair outcomes in retirement for individuals with different characteristics and/or in different circumstances (e.g. women, renters, etc.)?

The work of Basu and Drew (2009) and the more recent study of Bianchi, Drew, Walk and Wiafe (2016) highlight the gender inequality in Australian superannuation and retirement outcomes. Australian female workers experience a more dynamic work profile (e.g. due to family formation and parental care reasons, among others), and as a consequence, women tend to accumulate lower superannuation balances, on average, in comparison to their male counterparts. Furthermore, Australian Government Actuary statistics (AGA, 2019) show that Australian females live longer than males, on average, and therefore, they are more likely to be exposed to longevity risk (i.e. the risk of outliving one's retirement savings).

In terms of current policy settings, we recommend that the superannuation contributions cap be relaxed for females who have exited full-time employment and have returned to the workforce and are willing to make larger than normal contributions to their superannuation account that is equivalent to full-time employment outcomes. The proposed policy change will provide Australian females with the choice to 'catch-up' on their super contributions as if they had remained in the full-time workforce and reduce the inequity of this current policy setting.
The work of Bianchi *et al.,* (2016) examined the superannuation and retirement outcomes between indigenous and non-indigenous Australian workers. The evidence shows there is a superannuation and retirement income gap between these two cohorts which is determined by earnings/salary differences between the two groups. The research identified the issue of lower life expectancy of indigenous Australian and its implications for superannuation / retirement policy. A case can be made for indigenous Australians to access their superannuation and/or retirement investments early when an individual is diagnosed with a shortened life due to a clear and present life-threatening medical condition.

Cohesion (of Australia's Retirement System)

Consultation Question 22:
Does the retirement income system effectively incentivise saving decisions by individuals and households across their lifetimes?

The work of Elkhishin, West and MacDonald (forthcoming) reveals systemic issues relating to low superannuation contributions from self-employed workers such as tradespeople. Workers that are self-employed tradespeople are shown to report low levels of superannuation savings, and therefore, a higher probability of inadequate retirement income when the individual transitions from work to retirement. The study refers to data from the Australian Taxation Office (ATO) and finds that during the 2014-15 period, only one-quarter of ICs made tax-deductible contributions to their superannuation accounts (ASFA, 2017). As a result of this low contribution rate, the average superannuation balances for self-employed males was around $155,000 compared with $386,510 for male wage and salary earners. For self-employed

women, it was $86,000 compared with $159,000 for female wage and salary earners (ABS, 2014). The result of the finding maintained that without SGC, self-employed people will have lower superannuation balances than employees across the entire age distribution (ASFA, 2017).

The study by Elkhishin et al. (forthcoming) employed HILDA Survey data from 2001-10 to investigate the retirement savings of self-employed tradespeople. The results demonstrated that financial decisions were distinctly different between self-employed tradespeople and employed tradespeople. They found that the SGC exclusion for self-employed tradespeople were evident from the data with the regression results showing a significant and highly negative likelihood of holding superannuation accounts. Although participation rates for self-employed tradespeople were relatively high, the balances inside of superannuation were lower. The low superannuation balances confirm ASFA findings.

Instead of superannuation, self-employed tradespeople had higher likelihoods of investing more money in business assets and trusts. In addition, they had higher levels of wealth in family homes, other property and equities. We consider these asset classes as likely alternatives for SGC as retirement savings products. Accordingly, self-employed tradespeople are vulnerable to market conditions upon retirement when liquidating their business assets, as well as the property market. It is an increasingly important issue to understand the financial implications of SGC exclusion on retirement provision given the rise in other types of IC work, such as seen in the gig economy.

Concluding remarks on retirement income and CIPRs

We support an *evidence based approach* to the development of public policy for superannuation and retirement income. Much of the current debate regarding retirement income products is simply that, a discussion about product. The financial services industry has a long history of wanting to solve all ills through product. The authors of this submission have been in the *public square* for many years highlighting the perils of such 'silver bullet' thinking:

> *"Could it be that we want nothing less than the ideal post-retirement product for our plan members? Are we waiting for a product innovation, a silver bullet, to mitigate the complexities of our post-retirement income needs? Surely there is some low-fee product being built that can provide retirees with a stable, real income stream for life that vanquishes counterparty + inflation + sequencing + longevity risks; handles aged care and medical expenses; and beat peers (of course).*"
>
> Dr Michael Drew and Dr Adam Walk in "Aussie Supers Must Do Better",
> http://www.institutionalassetmanager.co.uk/sites/default/files/1510_AlphaQ.pdf

We believe it vital to commence with these higher order objectives/ issues/ risks/ challenges first, then move to matters of product design at the implementation level:

- *Too much of the debate has focused on 'to retirement', we need to change this mindset to 'through retirement'*
  Voluminous research has been dedicated towards understanding the accumulation phase of superannuation (savings and investments during an individual's working life). Australian studies in this field include the work of MacDonald, Bianchi and Drew (2012), Bianchi, Drew, Evans and Walk (2014) and Bianchi, Drew, Walk and Wiafe (2016). In contrast, little attention has been allocated to the retirement (and aged-care) phase. Some of the early works exploring the retirement and post-retirement phases include Drew and Walk (2014, 2015) and Drew, Walk and West (2016). These studies highlight the complexities of retirement income streams, the range of both largely known costs and the stochastic nature of health shocks, aged care and mortality. Moreover, how do we ensure trustees govern superannuation funds through retirement (Drew and Walk, 2016b).

- *The 'annuity puzzle' remains a challenge*
  Annuity type retirement products have been in low demand for a very long time (see Friedman and Warshawsky, 1990). For decades, economists have advocated annuities and annuity-type products as the appropriate investment vehicles for retirees, especially for the management of longevity risk (see Davidoff, Brown and Diamond, 2005 and Mitchell, Poterba, Warshawsky and Brown, 1999). Despite the inherent benefits of annuity type solutions, the demand for these products around the world is very low and this mystery is termed the 'annuity puzzle' (refer to Benartzi, Previtero and Thaler, 2011). The 'annuity puzzle' is also prevalent in Australia (see O'Meara, Sharma and Bruhn, 2015). The Australian Government (2016) discussion paper seeks to introduce CIPRs without adequately addressing its biggest challenge of all, which is the 'annuity puzzle' that has baffled economists, consumer psychologists, academics and industry professionals around the world for many decades. This issue remains a formidable barrier and highlights the potential risks of a 'silver bullet'/ 'one-size-fits-all' approach to the development of CIPRs in Australia.

- *CIPRs and their providers are exposed to 'sequencing risk'*
  The work of Basu and Drew (2009) and Macqueen and Milevsky (2009) show that the success of superannuation accounts is heavily dependent upon the sequence of returns from global financial markets. Sequencing risk can be simply defined as the worst investment returns occurring at the worst time. Subsequent research by Doran, Drew and Walk (2012) and Drew, Walk and West (2016) reveals that retirees are also exposed to sequencing risk. In the future, CIPR providers will be exposed to sequencing risk and their success in delivering this new investment product will be conditional upon the financial market returns of the future.

- *Should CIPRs by voluntary/ soft compulsion/ compulsory?*
  As economists, the honest answer is … it depends. For instance, evidence from Brown, Kapteyn, Luttmer and Mitchell (2017) and Browning, Finke and Huston (2012) suggests that the marketing, implementation, and operationalisation of annuity-type

products is complex, to say the least, which introduces less margin for errors in decision making. These findings are made in the context of a balance-sheet (annuity) product. The economics of tontine-like products may require compulsion to maximize the mortality pool. However, other potential retirement income designs may be better suited to soft-compulsion or voluntary (such as managed payout schemes). Again, this is the challenge of seeking to solve all problems with a single product. Our best advice is that the CIPR product design should be informed by the problem it seeks to solve. There are no unicorns. What aspect of retirement income risk are we seeking to solve? Longevity? Aged Care? Regular income? Inflation? Sequencing risk? As Professor Michael Drew (Griffith University) has said many times, *"… sadly, when it comes to retirement income risk, we are often simply exchanging one kind of risk, for another kind of risk."*

> *"Retirees face an array of living expenses, the certainty of which range from: expected (such as utility bills, insurance costs, general living expenses); through to stochastic (for instance, major unanticipated health events and aged care). As stewards of DC plans, we can add tremendous value by sensibly trading off sets of potential risks against other potential risks in retirement (e.g. market, inflation, growth, complexity, operational, tax, interest rate, to name but a few)."*
>
> Dr Michael Drew and Dr Adam Walk in "Aussie Supers Must Do Better", http://www.institutionalassetmanager.co.uk/sites/default/files/1510_AlphaQ.pdf

- *Managing longevity risk is hard, just ask defined benefit plans*
  One of the potential benefits of CIPRs is that they can assist in risk transfer through pooling. Ezra (2005) argues that the successful management of retirement income is one of the greatest challenges and difficulties for the finance industry and is one of the great lessons from financial history. The lessons from the defined benefit (DB) scheme era of decades ago illustrate the difficulty in promising a certain level of benefits during an individual's accumulation phase (Broadbent, Palumbo and Woodman, 2006). The same problems apply in the retirement phase due to longevity risk. A summary of the failures and deficits in Australian DB schemes are documented in Ferris (2006). ASIC (2003) reports that 20% of corporates in their survey reported DB schemes in deficit. Examples of failed corporations that offered retirement based income products are documented in O'Brien (2006) and Wooten (2001). History suggests that it is difficult for the financial services industry to offer an investment product that guarantees a specific minimum rate of return or minimum regular cash flow which is low cost, low risk and compelling for the consumer. Retirees will be exposed counterparty risk (i.e. entities who sell annuity or CIPR type products) and this must be carefully managed for CIPRs.

- *Different types of CIPRs will, by design, have different fees*
  The Australian Government (2016) discussion paper calls on the private sector to develop different types and variations of CIPRs. The work of Deng, Dulaney, Husson and McCann (2014) shows that adding complexity into a simple annuity investment product can, for instance, lead to management fees being easily hidden as it reduces the ability for consumers and financial advisors to make direct comparisons between various CIPR type products. Is the CIPR making a contractual (balance sheet backed)

payment, or a market-related payment? It is a non-trivial task for how a simple framework for fee comparison will be developed for the first generation of CIPR products.

- *Lessons from the U.K. - CIPRs and the insurance regulatory regime*
  There is a lot of knowledge to be gained by examining one of the world's largest annuity markets, the United Kingdom (UK). One lesson from the compulsory UK annuity market shows their longevity risk product was problematic when structured inside an insurance regulatory regime. Blake and Turner (2014) explain that EU regulation would require higher levels of reserves to be set aside when offering these types of products due to the lack of available assets to effectively hedge longevity risk. Capital adequacy and the limitations on the investment universe available to the CIPR providers is another area which needs to be addressed prior to the design of product.

- *More lessons from the U.K. - Development of an ultra long-term Australian bond market*
  Another lesson from the U.K. is the need for investment managers to have the appropriate market instruments to effectively hedge and manage their long-term CIPR exposures (i.e. longevity risk). Today, a 65-year-old retiree in Australia has a conditional life expectancy of 20-25 years. Whilst stock markets provide the necessary equity risk premium for long-term investment decisions, there is a need for ultra long-term bonds as assets to adequately hedge longevity risk. At present, the longest maturity of an Australian Government bond is 21 March 2047 (see Australian Office of Financial Management (AOFM) website). At the time of writing, this bond issuance equates to a maturity of 27 years with a modified duration less than that. The total amount of these bonds on issue as at 31 January 2020 is $13,300 million. The development of an Australian CIPRs requires the issuance of more (and more) longer duration (preferably inflation-linked) bonds to provide a natural hedge asset to effectively manage longevity risk.

- *Lessons from the U.S. - Deferred annuity market reveals low demand?*
  The work of Milevsky (2005) spurred the development of the deferred annuity market in the U.S. which are also referred to as 'longevity insurance annuities'. The work of Chen, Hughes and Turner (2015) suggest that there are very few insurers that offer the product and the pricing (and benefits) of deferred annuities can vary considerably. Chen, Hughes and Turner (2015) argue that one of the reasons for the low demand in deferred annuities is the concern about the long-term solvency of the deferred annuity provider (i.e. a firm provides an annuity solution many decades into the future). Essentially, retirees are exposed to counterparty risk with the annuity provider. This issue of credit risk is a valid concern. Another issue stems from the earlier work of Warner and Pleeter (2001) who show individuals cannot easily understand and value the differences between lump sums and annuities even when high interest rates are offered. The issues of credit risk - and retirees being unable to understand and effectively measure the value and benefits of annuity or CIPR based retirement solutions - are formidable challenges in the development of a new Australian CIPR market.

- *Australia's legislated withdrawal rates amplify longevity risk*
  Page 4 of the Retirement Income Review Consultation Paper shows that Pillar 1 is Australia's safety net to manage longevity risk. We advocate that retirees can manage their own longevity risk via their accumulated superannuation savings at retirement. This can be achieved; however, there are legislated minimum drawdown rate for account-based pensions in Australia. These mandated minimum withdrawal rates create a concern whereby individuals may outlive their retirement savings. Australia's punitive legislation forces individuals to draw down their account based pension savings at a minimum rate. At the time of writing, account-based pensions must withdraw savings at minimum levels ranging from 4% to 14% depending on the age of the individual. Studies by Blanchard, Finke and Pfau (2013) and Drew and Walk (2014, 2015) have refuted the earlier work of Bengen (1994) and show that withdrawal rates of 4% or higher are too high and lead to high probabilities of financial ruin due to the perennial elongation of longevity risk. The study by Cooley, Hubbard and Walz (1999) estimates that retirees using withdrawal rates of 4% would need a minimum allocation of 75% of their assets in stocks to avoid outliving their wealth in retirement. Similar evidence is reported in Milevsky, Ho and Robinson (1997). How many Australian retirees are willing to allocate 75% of their retirement savings in stocks/shares? The work on the portfolio size effect by Basu and Drew (2009) is instructive here. The evidence clearly shows that withdrawal rates of 4% (or higher) may condemn retirees to outliving their money and becoming a victim of longevity risk, thereby requiring greater assistance from the age pension, thus, further exacerbating the public purse. As the life expectancy of our retirees continues to be extended in the future, Australia's legislated minimum withdrawal rates *amplify longevity risk* for Australian retirees. To manage the longevity risk of the Australian retiree population, we recommend that Australia's **legislated minimum withdrawal rates be reduced** on account based pensions.

- *Investment governance and the role of Trustees*
  Our submission points to the ever-increasing demands placed on Trustees of superannuation funds to find 'safe passage' through the accumulation phase of retirement saving and plot a course the ensures retirement income security. A non-trivial task by any measure. We point to the work of Drew and Walk (2019) on investment governance in responding to this challenge. Drew and Walk (2019) define investment governance as, *"the effective employment of resources—people, policies, processes, and systems—by an individual or governing body (the fiduciary or agent) seeking to fulfill their fiduciary duty to a principal (or beneficiary) in addressing an underlying investment challenge."* Good investment governance is vital to help fiduciaries increase the probability of success. Specifically, Drew and Walk (2019) note, *"almost all our suggestions point to the need for a good process that is defensible, repeatable, and documented and that can be used as evidence of diligence in fulfilling the role of fiduciary. Applied diligently by the fiduciary body through time, this process seeks to maximise the probability of achieving the objectives set on behalf of beneficiaries."* It would be an opportunity lost for the review not to comment formally on the role of investment governance in retirement income security.

"If we are of the view that there is no silver bullet to cure all ills, then a combination of strategies will be required to provide a holistic post-retirement solution. We describe this strategy as a building block approach. This approach is much more than simply adding product to the menu. It requires a coordination of multiple levers within the plan: member engagement; education (financial wellness); communication; advice of various forms; and products.

Such a strategy would see us take an engineering approach to post-retirement solutions. This sort of approach challenges our traditional, heavily optimised (mathematically elegant-but-fragile) approach to the problem. Again, the experience of DC plan members during the Global Financial Crisis is a living case study of the fragility of many financial products. According to the engineering approach, product design would be evaluated on whether it moves the balance of probabilities in the favour of plan members acknowledging the concomitant uncertainties.

Given the multi-period, multi-cash flow challenges facing retirees, how can we coordinate these products to provide a holistic solution for plan members?" We can, and we must, do better."

Dr Michael Drew and Dr Adam Walk in "Aussie Supers Must Do Better",
http://www.institutionalassetmanager.co.uk/sites/default/files/1510_AlphaQ.pdf

Thank you for the opportunity to make the submission. We would be most happy to furnish any further details you may require.

References

Australian Government, 2016, *Development of the Framework for Comprehensive Income Products for Retirement*, Discussion Paper, Australian Government Treasury, 15th December, Langton Crescent, Parks, ACT.

Australian Securities and Investments Commission (ASIC), 2003, *Financial Reporting by Corporate Sponsors of Defined Benefit Superannuation Plans,* 21st August, asic.gov.au, Sydney.

Association of Superannuation Funds of Australia (ASFA) (2017), *Superannuation and the Changing Nature of Work*, Discussion paper, ASFA Research and Resource Centre, Sydney, Australia.

Association of Superannuation Funds of Australia (ASFA) (2019), *ASFA Retirement Standard Figures – Detailed budget breakdowns*, September quarter 2019, ASFA Research and Resource Centre, Sydney, Australia.

Australian Bureau of Statistics (ABS) (2014), *Survey of Income and Housing*, 2013-14, Unit Record File (Catalogue No. 6553.0).

Australian Government Actuary (AGA) (2019), *Australian Life Tables 2015–17*, Parkes, Canberra.

Australian Securities & Investments Commission (ASIC) (2019), *Financial advice: What consumers really think*, Report 627, August.

Basu, A. K. and Drew, M. E. (2009), The case for gender-sensitive superannuation plan design, *The Australian Economic Review* 42(2), 177-189.

Basu, A. K., and Drew, M. E. (2010), The appropriateness of default investment options in defined contribution plans: Australian evidence, *Pacific-Basin Finance Journal* 18, 290-305.

Benartzi, S., Previtero, A. and Thaler, R., 2011, Annuitization puzzles, *Journal of Economic Perspectives* 25(4), 143-164.

Bengen, W., 1994, Determining withdrawal rates using historical data, *Journal of Financial Planning* 7(4), 171-180.

Bianchi, R., Drew. M., Evans, M. and Walk, A., 2014, The two faces of investment performance and risk, *JASSA The Finsia Journal of Applied Finance*, Issue 1, 6-12.

Bianchi. R. J., Drew, M. E., Walk, A. N. and Wiafe, O. K. (2016), Retirement adequacy of indigenous Australians: A baseline study, *Economic Papers* 35(4), 359-374.

Blake, D., Carins, A. J. G. and Dowd, K. (2001), Pensionmetrics: stochastic pension plan design and value-at-risk during the accumulation phase, *Insurance: Mathematics and Economics* 29, 187-215.

Blake, D. and Turner, J., 2014, Longevity Insurance Annuities: Lessons from the United Kingdom, *Benefits Quarterly*, First Quarter, pp. 39-47.

Blanchett, D., Finke, M. and Pfau, W., 2013, Low bond yields and safe portfolio withdrawal rates, *Journal of Wealth Management* 16(2), 55-62.

Broadbent, J., Palumbo, M. and Woodman, E., 2006, *The shift from defined benefit to defined contribution pension plans – Implications for asset allocation and risk management*, Working Paper, Bank for International Settlements (BIS), December.

Brown, J., Kapteyn, A., Luttmer, E. and Mitchell, O., 2017, Cognitive constraints on valuing annuities, *Journal of the European Economic Association* 15(2), 429-462.

Browning, C., Finke, M. and Huston, S., 2012, Rational choice with complex products: Consumer valuation of annuities, *Journal of Financial Counseling and Planning* 23(2), 32-45.

Chen, T., Hughes, G. and Turner, J., 2015, *Longevity insurance annuities for public pension reform: International lessons*, Working Paper, Pension Policy Center, March, Washington DC.

Cooley, P., Hubbard, C. and Walz, D., 1999, Sustainable withdrawal rates from your retirement portfolio, *Journal of Financial Counseling and Planning* 10(1), 40-50.

Davidoff, T., Brown, J. and Diamond, P., 2005, Annuities and individual welfare, *American Economic Review* 95(5), 1573-1590.

Deng, G., Dulaney, T., Husson, T. and McCann, C., 2014, Structured Product Based Variable Annuities: A new (and complex) retirement savings vehicle, *Journal of Retirement*, Winter, 97-111.

Doran, B., Drew, M. and Walk, A., 2012, The retirement risk zone: A baseline study, *JASSA The Finsia Journal of Applied Finance*, Issue 1, 6-11.

Drew, M. and Walk, A., 2014, *How Safe are Safe Withdrawal Rates in Retirement? An Australian Perspective*, Finsia (Financial Services Institute of Australasia), Sydney.

Drew, M. and Walk, A., 2015, Just how safe are 'safe withdrawal rates' in retirement, *Financial Planning Research Journal* 1(1), 22-32.

Drew, M. and Walk, A., 2019, Investment Governance for Fiduciaries, CFA Institute Research Foundation. Available at: https://www.cfainstitute.org/-/media/documents/book/rf-publication/2019/investment-governance-for-fiduciaries.ashx

Drew, M., Walk, A. and West, J., 2016, Withdrawal capacity in the face of expected and unexpected aged-care expenses during retirement, *Journal of Retirement* 3(3), 77-94.

Drew, M. and Walk, A. 2016b, Governance: The Sine Qua Non of Retirement Security, *Journal of Retirement* 4(1), pp. 1-10.

Elkhishin, A., West, T., and MacDonald, D. (forthcoming), Understanding the retirement savings of self-employed tradespeople in Australia, *Australian Journal of Labour Economics*.

Ezra, D., 2005, Retirement income guarantees are expensive, *Financial Analysts Journal* 61(6), 74-77.

Ferris, S., 2006, Broken promises: Solvency issues for defined benefit superannuation funds, *Law, Probability and Risk* 5, 201-232.

Financial System Inquiry, 2014, Australian Government, Treasury, November, Langton Crescent, Parks, ACT.

Friedman, B. and Warshawsky, M., 1990, The cost of annuities: Implications for saving behaviour and bequests, *Quarterly Journal of Economics* 105(1), 135-154.

Johnson, E. and Goldstein, D., 2013, Decisions by default' in Shafir, E. (ed.), *The Behavioral Foundations of Public Policy*, Princeton University Press, Princeton, pages 417-427.

MacDonald, K., Bianchi, R. and Drew, M., 2012, KiwiSaver and Retirement Adequacy, *Australasian Accounting Business and Finance Journal* 6(4), 61-78.

MacDonald, K. L., Bianchi, R. J. and Drew, M. E. (2019), Equity risk versus retirement adequacy: Asset allocation solutions for KiwiSaver, *Accounting and Finance*, doi:https://doi-org.libraryproxy.griffith.edu.au/10.1111/acfi.12481

Macqueen, A., and Milevsky, M., 2009, *Pensionize your nest egg: How to use product allocation to create a guaranteed income for life*, John Wiley & Sons Canada Ltd.

Matthews, C. (2015), *New Zealand Retirement Expenditure Guidelines*. Available at: http://www.massey.ac.nz/massey/fms/Colleges/College%20of%20Business/School%20of%20Economics%20&%20Finance/FinEd/Research/177653%20Report%20Final%202015.pdf

Milevsky, M., 2005, Real longevity insurance with a deductible: An introduction to advanced-life delayed annuities (ALDA), *North American Actuarial Journal* 9(4), 109-122.

Milevsky, M., Ho, K. and Robinson, C., 1997, Asset allocation via the conditional first exit time or how to avoid outliving your money, *Review of Quantitative Finance and Accounting* 9(1), 53-70.

Mitchell, O., Poterba, J., Warshawsky, M. and Brown, J., 1999, New evidence on the money's worth of individual annuities, *American Economic Review* 89(5), 1299-1318.

O'Brien, C., 2006, The downfall of equitable life in the United Kingdom: The mismatch of strategy and risk management, *Risk Management and Insurance Review* 9(2), 189-204.

O'Meara, T., Sharma, A. and Bruhn, A., 2015, Australia's piece of the puzzle – Why don't Australians buy annuities?, *Australian Journal of Actuarial Practice* 3, 47-58.

Senate (2002), Superannuation and Standards of Living in Retirement, *Senate Select Committee on Superannuation Report*, December, Senate Printing Unit, Parliament of Australia, Canberra.

Skinner, J. (2007), Are You Sure You're Saving Enough for Retirement?, *Journal of Economic Perspectives* 21(3), 59–80.

Warner, J. and Pleeter, S., 2001, The personal discount rate: Evidence from military downsizing programs, *American Economic Review* 91(1), 33-53.

Wooten, J., 2001, The most glorious story of failure in the business:' The Studebaker-Packard corporation and the origins of ERISA, *Buffalo Law Review* 49, 683-739.

Zhang, A. C. (2014), Financial advice and asset allocation of individual investors, *Pacific Accounting Review* 26, 226-247.

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