CEPAR Supplementary Submission to the Financial System Inquiry

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About CEPAR

The ARC Centre of Excellence in Population Ageing Research (CEPAR) is a collaboration between academia, government and industry.

The Centre is based at the University of New South Wales with nodes at the Australian National University and the University of Sydney. It aims to establish Australia as a world leader in the field of population ageing research through a unique combination of high level, cross-disciplinary expertise drawn from Economics, Psychology, Sociology, Epidemiology, Actuarial Science, and Demography.

CEPAR is actively engaged with a range of influential government and industry partners to cooperatively deliver outcomes to meet the challenges of population ageing. It is building a new generation of researchers to global standard with an appreciation of the multidisciplinary nature of population ageing.

Mission

CEPAR's mission is to produce research of the highest quality to transform thinking about population ageing, inform product and service development and provision (private practice) and public policy, and improve people's wellbeing throughout their lives.

Introduction

This submission supplements the primary CEPAR submission dated March 31 2014. It has been prepared because it has come to our attention that the Inquiry has an interest in the interaction between individual behaviour and the financial system, especially with regard to long term contractual saving.

The primary submission, in addition to dealing with retirement product design and innovation, and government policy, also addressed behavioural issues, especially in Section 4 (see Recommendations 12-15 of that document, and accompanying text). There we focused on the practical issues of information presentation, asset versus consumption frames, and consumer protection for older cohorts who may be vulnerable because of cognitive decline. In light of subsequent discussion with inquiry personnel, it was thought to be of value to cast the question of behaviour and choice, and its policy implications, in a broader perspective, providing some academic and empirical background. As with the earlier submission, we note that:

- the primary purpose of superannuation is assumed to be to provide a stream of resources in retirement;
- our main focus will be on the drawdown phase of retirement provision; and
- many of the points made will apply with equal force to the accumulation phase – saving enough is a pre-requisite for a successful drawdown.

The question of behaviour and choice is of special importance in the context of superannuation because the choices:

- have significant and long term consequences for the individual or household;
- are often “once in a lifetime” decisions, precluding the possibility of learning from experience;
- are very complex, with many unknown variables;
- often involve deciding on benefits a long way into the future, where issues of self-control become important; and
- may be compromised in late life due to cognitive decline.

The submission first focuses on the purpose of retirement policy, beyond poverty alleviation – pointing out that in a market economy, such policies must be motivated by behavioural considerations. We discuss both macroeconomic modeling and more specific evidence about behaviour. This may be seen as providing a rationale for the Superannuation Guarantee structure that Australia has adopted, as well as the social security structures which are found throughout the developed world.

We then consider how behavioural considerations impact the policy menu in the decumulation context more specifically, focusing on the nature of decisions taken through the retirement window and beyond. Where possible, we draw on international experience.

Behavioural Issues in Retirement Income Policy

If consumers acted 'rationally' – making informed choices that optimize what economic theory suggests and what they themselves would agree maximizes their lifelong wellbeing – then it would be difficult to justify retirement policy beyond poverty alleviation, particularly one that forced people to save.[1]

But there is a good deal of evidence that many people under-save for retirement, relative to what they consider is adequate retirement income[2] and the life cycle consumption smoothing benchmark.[3] This is partly due to lack of experience and financial competence – there is much evidence that people are poorly informed, and bring inadequate perspectives to bear, on questions of retirement saving, including CEPAR research (Agnew et al 2013). Behavioural economics and finance attribute departures from this benchmark not only to lack of competence, but to inertia, confusion, short-termism, and lack of self-control. There is evidence that even when people understand that they are saving too little for retirement, they cannot manage to increase their saving simply by choosing to do so (for example EBRI 2003).

The seminal contribution on dynamically inconsistent preferences (that is, preferences which change depending on the point in time from which they are perceived) is Strotz (1956), who captured this idea by modelling preferences with a discount rate diminishing with time to reward. Figure 1 illustrates this idea. The perceived value of these rewards is tracked as time to reward approaches. When both rewards are distant, the larger, slightly more distant reward, dominates. But as time to reward gets closer, the more immediately available reward comes to dominate. There is a whole strand of the literature, beginning with Thaler (1981) documenting empirical evidence for discount rates that change with time to reward. This motivated Laibson's (1998) characterisation of "hyperbolic preferences", in which the discount rate climbs exponentially as time to reward approaches.

A second stream of analysis is linked to the notion of bounded rationality (Simon 1955): certain problems are simply too complicated for individuals to come to terms with. This provides the theoretical underpinning for lack of financial competence. In the retirement saving context, evidence for this comes from the inability of many households to even calculate how much they need to save for retirement (EBRI 2003). Related CEPAR research focused on health insurance suggests that poor choices are made in that domain resulting from confusion (Johar et al. 2011).

These perspectives suggest there is value in commitment devices (Bryan et al. 2010). There is increasing evidence, both experimental and policy-generated, that people are prepared to pay to ensure their own commitment. Experimental evidence includes Beshears et al (2013).

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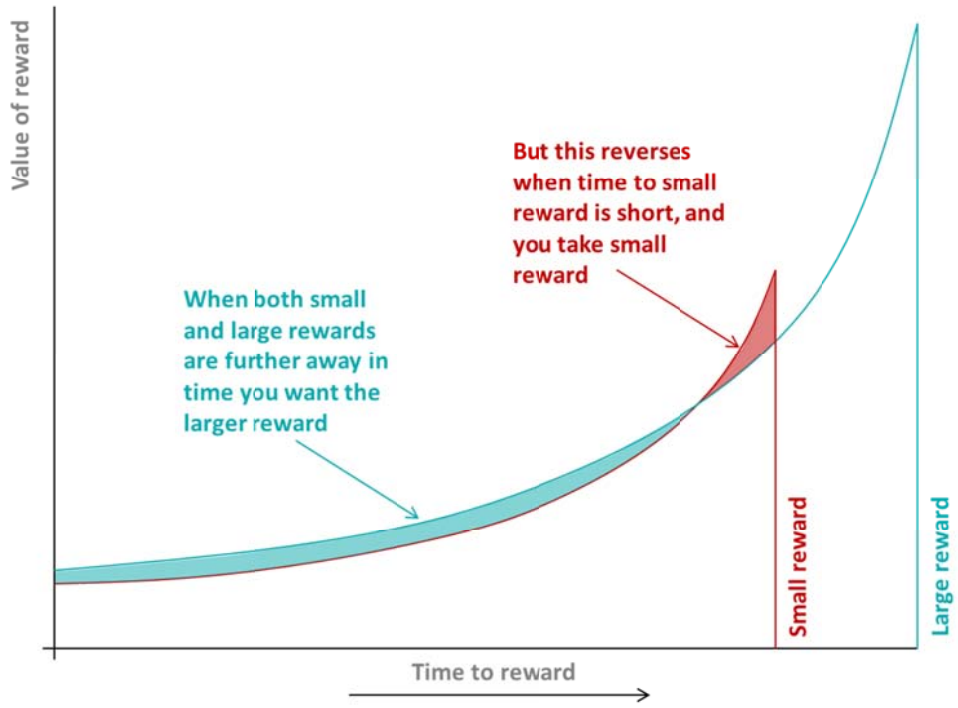
[1] Limited forced saving to prevent free riding on the poverty alleviation grant may, however, still be justified (Hayek 1960)

[2] For example, as derived via focus group based budget standards (e.g., ASFA, 2014)

[3] See for example, Mitchell and Utkus (2003), who provide a good introduction to research on behavioural economics and finance. We have drawn on this source in this submission.

The prevalence of income replacement retirement policies throughout the developed world is testament to the tendency of people to make poor choices for retirement provision, and at least in some degree, to their recognition that this is the case. In the last couple of decades, large scale economic models have been constructed incorporating behaviour reflecting these considerations, and in these models, retirement policy is seen for the first time as a commitment device, in and of itself.[4] [5]

Figure 1. Dynamic preference inconsistency



[4] Samuelson (1987) anticipated this in a Comment on a Merton NBER conference paper: "Much that a . . public system accomplishes could have been contrived privately. But it wasn't. . . And the voters are at least partially aware of their own imperfections. Models that ignore this miss an important part of the problem" (page 281).

[5] In the specific context of retirement policy, academic economics has been quite slow to catch up with these ideas. Much analytical research (for example Strotz 1956, Laibson 1998) made no mention of retirement. Until this century, macroeconomic (overlapping generations, or OLG) models of social security policies almost always generated results that placed "no policy" as welfare- or economic efficiency-superior to any significant social security policy. When preferences reflecting Strotz-type discount rates were introduced into these models, social security policies were for the first time ranked above a "no policy" alternative (Imrohoroglu et al 2003). What is happening here is that a different type of household agent has preferences that make the policy much more desirable. With further theoretical development of preference functions to capture commitment value (Gul and Pesendorfer 2001), it became possible to introduce explicit self-control (or temptation) preferences to OLG modeling of retirement policy (Kumru and Thanopoulos 2011). They showed that social security or mandatory pre-funding (what we have in Australia with the Superannuation Guarantee) is valued because it reduces temptation options.

These considerations have been very important in policy development, both in Australia and internationally, and can be seen as a major motivation for mandatory retirement policies, in the form of either social security or forced saving paradigms.[6]

The above summary suggests that mandatory retirement saving can act as a commitment device, and therefore has value, since people are willing to pay for such devices.

Policy Formulation and Behaviour: Mandating and Defaults for Decumulation

In its earlier submission to the Inquiry, CEPAR pointed out that the drawdown, or decumulation phase of the Australian retirement income system was the "least developed and thought-out dimension of Australia's retirement income system". The behavioural and competence issues discussed above apply with equal force to the retirement phase of life. Accordingly, the current discussion will emphasise the drawdown phase.

It is convenient to begin by noting that there are several domains of retirement income structures over which policy structures can enlist compulsion, default, or active choice, and with or without some tax preference. Figure 2 provides a breakdown of seven such domains, in countries where there are mandatory or quasi-mandatory DC type retirement plans. These countries mandate enrollment and some minimum contribution rate, but in the domains of asset allocation and provider, defaults or active choice are more common. None of the countries surveyed mandate advice. The treatment of retirement benefits is mixed: active (if occasionally restricted) choice, defaults and mandatory forms of pension benefits all appear.

International practice with regard to drawdowns of the main income-related benefit relies on either mandatory pensions (including social security) or annuities, defaults, or incentives to compel or induce retirees to take income streams in retirement. Often, countries have combinations of these strategies. Compulsion comes with tax preference, for example; or a compulsory income stream from (earnings-related) social security will sit alongside an annuity default.

Australia has none of these in its decumulation framework, except for a tax break on the earnings of assets post-retirement, which somewhat encourages individuals to hold their assets behind the superannuation 'veil'.[7] This may provide some tax advantage relative to taking a lump sum.

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[6] Not that the idea is new. When debating in Australian Parliament the Age Pension Act in 1907 one Senator Dobson said: "if we trust to voluntary action; if we think that men will make provision, by insurance or in some other way, for themselves against accident or old age, we shall be disappointed. Not one in eight or nine will do it. It is ridiculous to go on imagining that we shall ever grow into a robust and healthy nation, morally and physically, unless people who cannot be induced to do so are compelled by law to carry out these sacred duties." [Commonwealth of Australia (1907)]

[7] The Age Pension means test in effect discourages the use of Superannuation as a stream of resources over retirement while incentivising early spending, sometimes on means test-exempt owner-occupier housing.

Figure 2. Choice in mandatory or quasi-mandatory defined contribution schemes in OECD countries

	No soft or hard compulsion[a]	Default	Tax preference only	Mandated / highly restricted choice
Enrolment				AUS, CHI, DNK (ATP), DNK (OCCUP), EST, ISR, MEX, NOR[j], POL, SVK, SWE (PPM)
Contribution				AUS, CHI, DNK (ATP), DNK (OCCUP), EST, ISR, MEX, NOR, POL, SVK, SWE (PPM)
Allocation	SVK	AUS, CHI, DNK (Occup.)[e], MEX, EST, NOR, SWE (PPM)		DNK (ATP), ISR, POL
Provider	CHI, EST, SVK	AUS, POL, MEX, ISR		DNK (ATP), DNK (Occup.), NOR, SWE (PPM)
Advice	AUS, CHI, DNK (ATP), DNK (OCCUP), EST, ISR, MEX, NOR1, POL, SVK, SWE (PPM)			
Retirement phase[b]	CHI[c,] MEX[h]			AUS[d], DNK (ATP), DNK (OCCUP), EST, ISR, NOR, POL, SVK, SWE (PPM)
Benefit	AUS, MEX[i], SVK[k]	DNK (Occup.)[e]		DNK (ATP), CHI[l], EST[f], ISR[g,] NOR[f], POL, SWE (PPM)

Source: Authors' compilation of various sources. Notes: [a] Only actuarial adjustment; [b] For retirement decisions, the existence of a minimum age represents a mandated choice. Country notes: [c] Requires a DC benefit of at least 80% of the maximum targeted benefit and a replacement rate of at least 70%; [d] Tax incentive to delay until 60 until 2024, then mandated to no earlier than 60; [e] Choice with respect to allocation and benefit can differ by scheme and is decided when first becoming a member, but annuities are often the default option; [f] Choice among types of annuities; [g] Once annuity is purchased up to a certain level, left over funds can be taken as lump sum; [h] Members may retire at any age if the accumulated capital in their account allows them to buy an annuity that is at least 30% higher than the minimum guaranteed pension. In this case, the member does not have to complete the 1,250 weeks of contributions; [i] Choice is between phased withdrawal or annuity. Lumps sum can be taken only if 1,250 weeks of contributions is not reached; [j] Employer must pay minimum contribution; employee may contribute but does not have to; [k] Annuity or phased withdrawal. No lump sum. [l] Chile allows restricted choice of phased withdrawal, price indexed life annuity or a combination of withdrawals and immediate or deferred annuity, while lump sums are allowed for funds beyond those required to provide a specified level of pension.

Australia is the only developed economy with mandatory retirement saving to have no significant decumulation structure. Here, we discuss briefly the advantages and disadvantages of mandating and defaulting as techniques for encouraging retirees to take income streams in retirement.

Mandating and Defaults in the Drawdown Phase

Both internationally and in Australia, retirement income structures have increasingly used defaults in those domains of the plan where mandating is absent. What are the relative merits of these policy strategies as they apply to drawdowns?

Mandating: Mandating has the clear advantage that an income stream MUST be taken, and if the mandate takes the form of a life annuity, then issues of adverse selection vanish. But there are a number of disadvantages to mandating an immediate life annuity:

- Individual circumstances are far more heterogeneous in later life than they at earlier life stages, and mandate design can therefore be challenging. To take just one example, if mandating is

chosen as an approach to income streams, then lack of liquidity may be of concern to low income households. Interaction with the age pension is also important – current research (Bateman et al. forthcoming, presented at the CIFR FSI Workshop on May 7, 2014) suggests that it is not optimal for low wealth households to annuitise their superannuation accumulation.

- Mandating a large sum at a single point in time also exposes the retiree to timing risk, forcing annuity purchase at a time when interest rates may be low and the value for money poor.
- There are many uninsurable risks to which people in retirement may be exposed, so that mandatory annuitisation of superannuation wealth may actually be riskier, rather than provide insurance against risk, on average across all risks in the retirement space.[8]
- Self-insurance in the early phase of retirement may be manageable and cheaper, given capital reserve requirements on an immediate annuity.

These considerations suggest caution regarding an immediate mandated life annuity at retirement. However, mandatory purchase of deferred late life annuities may have value as a policy. This is because

- Viewed from the retirement window, there is little private information, or information asymmetry, between buyer and seller, concerning the circumstances of most individuals projected 20 or 25 years into the future
- Such a product would provide a definite time horizon in managing other retirement resources
- The mortality bonus inherent in a deferred annuity payable from, say, age 85, would make the product affordable
- Mandatory purchase would help manage the issue of choice under the likely circumstance of reduced cognitive capacity
- The timing risk could be reduced by setting up deferred annuity purchase as a stream of annual payments post-retirement.

These considerations have led us to recommend that the Committee consider this mandate. Regulations or government support to manage counterparty risk would, however, be required, and some kind of government guarantee against extreme systematic longevity risk may also be required for the market to become viable at scale. The issue of long-dated securities, such as 30 year inflation-indexed bonds, to finance government debt, would greatly help asset liability matching in this market.[9]

Defaults: If mandating is not used, then defaults are frequently relied upon. There is little evidence as to the efficacy of defaults in the retirement benefit domain, but what exists suggests that defaults may be effective. The evidence has mostly been generated in a context where the framing has been heavily oriented to consumption. For example, Butler and Teppa (2007) investigate annuity choice in Switzerland, where a consumption frame is manifest. They find that most retirees take annuities if that is the default, but that lump sums are more often taken where that is the default. Benartzi et al (2011)

[8] In addition, it is sometimes argued that when decisions are mandated, no learning takes place. It is, however, unlikely that this is a choice that will be made repeatedly in a life course, so learning may not be important.

[9] Recommendation 10 of our earlier submission addressed this point.

argue that institutional factors and financial competence, rather than underlying preferences, lead to the low take-up of annuities in the US.

It is worth reflecting on the circumstances in which a default is likely to work. Sunstein (2013) suggests that defaults work best when people don't have clear preferences, or are confused about the choices offered. Where people are clear about what they want, then defaults don't work.[10] Whether defaults into immediate life annuities in the decumulation phase would work in Australia is not known, although we do know that in the pre-retirement phase, most workers do not understand what an annuity is (Agnew et al. 2013). The reservations itemized earlier in this submission regarding mandatory immediate annuitisation also carry some force when a default is considered. Some form of phased withdrawal, such as an account-based pension with minimum and maximum drawdown rates, may be a less contentious default.

Relatedly, Sunstein (2013) distinguishes between impersonal and personalised defaults. Impersonal defaults have some of the same disadvantages as a mandate, in that acceptance of the default will lead to the same choice by people in different circumstances. Of course, with a default, there is a let-out – if the default is manifestly unsuitable, an override is possible. In practice, the extent of personalization of defaults that would be possible in Australia is unclear: in the domain of asset allocation, where defaults are mandated, funds rarely use more information than income and age in designing the default. How more personalized defaults into annuities immediately payable upon retirement may be implemented is also unclear.

Bounded Rationality and Confusion: Evidence has been adduced above to suggest that there may be advantages to a simpler menu of retirement products. To implement such a "simplification" strategy, it may be sufficient to require that all financial service providers offer a "simple" menu of two or three standardized products. Appropriate and standardized protocols could be implemented to describe these products. These products would be comparable across providers and could be readily compared. This may alleviate the barriers to annuitisation stemming from lack of financial competence.

Recommendations

This supplementary submission has sought to deal with the implications of our current knowledge about behavior and financial markets for policy regarding drawdowns. Three recommendations follow.

Recommendation S1: At some point corresponding to substantial scale-down of labour force participation in later life, at or after superannuation access age (retirement), individuals should have most of their superannuation accumulations defaulted into an account-based pension. That is, a current active option is converted into a default. The proportion so defaulted will depend in part on whether recommendation S2 (below) is adopted.

[10] He offers the following example: in all 50 US states, the default choice of last name at marriage is to maintain one's last name, regardless of gender. Most men follow the default; most women override the default.

Recommendation S2: Consideration should be given to mandating late life annuities, on a deferred basis. The age of commencing payment should be chosen to provide genuine "insurance" against resources required if living unexpectedly long. This reduces the cost of such a contract, both because the average number of years of payment will not be high, and because the later the commencement age, the greater the "mortality bonus". Relative to an immediate annuity mandate, capital reserve requirements would be lower because of the much lower expected payouts. Premiums could be paid either as a capital transfer at retirement, or as an annual payment from that point up to access age. This latter arrangement would have similarities with life insurance, and may therefore be more acceptable in the community. Commencement age should be at least life expectancy at age 65. Access at age 85 may be a good choice, balancing the above considerations. Earlier deferral could be enabled if serious cognitive decline sets in earlier. To implement this successfully may require government support for the market.

Recommendation S3: Retirement income products should be simplified. A possibility is to require that financial service providers offering retirement income products offer *at least* a small menu of standardised products, with clear protocols around pricing, charges, and benefits. If a default or mandate has been specified, it should be included in this menu, and should be simple.

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