DRAFT

Comments welcome

Retirement income provision in Australia – outstanding design issues in a mature system

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Abstract:
At first glance, Australia's retirement income arrangements, centred on a private mandatory pillar and supported by a publicly provided safety net and voluntary private retirement saving, appear to be performing well. Yet, under the surface lie a number of design and implementation issues which could threaten future retirement incomes. This paper critically reviews and assesses Australia's retirement income arrangements and identifies outstanding design and implementation issues. A key factor is the increasing reliance on defined contributions arrangements, which place much of the risk and responsibility associated with retirement income provision on individual retirement savers.

1. Introduction

At first glance, Australia's retirement income arrangements, centred on a private mandatory pillar and supported by a publicly provided safety net and voluntary private retirement saving, appear to be performing well. Two decades after the introduction of mandatory private retirement saving (award superannuation and then the superannuation guarantee)[1] coverage has increased from less than 50 percent to around 96 percent of employees, compliance is high, potential replacement rates for a full working life of mandatory contributions are more than adequate and (despite recent falls in share prices) superannuation fund assets have performed well against standard benchmarks. In 2009 aggregate superannuation assets were in excess of 100 percent of GDP.

Yet, under the surface lie a number of design and implementation issues which could threaten the adequacy of future retirement incomes. These fall into two broad categories. First, issues associated with the increasing reliance on defined contributions arrangements, which place much of the risk and responsibility associated with retirement income provision on individual retirement savers, and, second, incomplete and poor policy design, particularly in relation to the decumulation of retirement savings (ie retirement benefits).[2]

The aim of this paper is twofold. First, to critically review and assess Australia's retirement income arrangements, and, second to identify and discuss the outstanding design and implementation issues. The paper is set out as follows. Section 2 outlines Australia's multi-pillar approach to retirement income provision and assesses current policy against the economic and financial risks faced in retirement. Section 3 discusses the implications of the transfer of risk and responsibility to individuals under Australia's largely defined contributions arrangements, while Section 4 concludes.

[1] In Australia private retirement saving is called superannuation.

[2] Another example of poor policy design is the complex and regressive system for the taxation of retirement savings.

2. Australia's retirement income arrangements

Retirement income provision in Australia is a multi-pillar arrangement comprising a public pension (the Age Pension), mandatory private retirement saving (the superannuation guarantee), voluntary superannuation and other long term saving. Even though superannuation was first` introduced in the 1850s, public pensions in 1909 and the mandatory superannuation guarantee in 1992, Australia's retirement income arrangements are still 'work-in-progress'. Over the period 2008-10, retirement income policies are the subject of three comprehensive reviews - the Henry Review into Australia's future tax system (AFTS 2008a, 2008b)[3], the Harmer Review of public pensions (Harmer 2008) and the Cooper Review of the governance, efficiency, structure and operation of Australia's superannuation system (Super System Review 2009a, 2009b). The Harmer Pension Review reported in May 2009 with changes to the Age Pension announced in the 2009-10 Budget (Harmer 2009, Australian Government 2009a), while the Henry Review, which is due to report at end-2009, released preliminary recommendations in May 2009 (AFTS 2009).

The broad features of Australia's retirement income arrangements as of mid-2009 are summarized in Table 2.1 and discussed below.[4]

2.1 The Age Pension

The origins of a national retirement income policy for Australia date back one hundred years to the first payment of the Age Pension in 1909. The Age Pension was, and still is, a general-revenue financed, means tested, safety net payment for the retired. It is provided subject to age, residency, and income and assets means tests and until the introduction of the superannuation guarantee in the final decade of the 20th century, was the main retirement policy instrument in Australia.

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[3] Also known as the Henry Review, this also includes a review of superannuation policy design (AFTS 2008c, 2009).

[4] The discussion on the Australian retirement income arrangements is drawn from Bateman, Kingston and Piggott (2001) and Bateman (2007).

2.2 Mandatory private retirement saving – the superannuation guarantee

The superannuation guarantee was introduced in 1992 as a form of mandatory private retirement saving. All employers are required to make superannuation contributions of at least 9 percent of earnings on behalf of eligible employees to a superannuation fund. Employees aged 18-70 and earning more than $A450 per month (around 9 percent of average male earnings) are covered. The self-employed are excluded but have access to tax concessions for voluntary contributions and are eligible to participate in a government co-contribution scheme. The mandatory contributions are placed in privately managed superannuation funds[5] and are immediately vested and fully portable. Benefits can be accessed at the statutory preservation age, which is currently age 55, but is increasing to age 60 for persons born after 1964.

The superannuation guarantee replaced (quasi mandatory) productivity award superannuation which from 1987 had required employer superannuation contributions to workers covered by industrial awards. The recently released 'Report on strategic issues in the retirement income system' recommended against increasing the mandatory contribution rate of 9 percent, extending mandatory coverage to the self-employed, or changing the minimum income threshold for mandatory coverage (AFTS 2009).

2.3 Voluntary retirement saving

The Age Pension and superannuation guarantee are supplemented by voluntary superannuation, and other forms of long term saving through property, shares, managed investments and home-ownership. Voluntary superannuation has been tax preferred since 1915. Prior to the introduction of award superannuation in 1987 and the superannuation guarantee in 1992, most occupational superannuation was of the defined benefits variety. However, over the past 20 years most defined benefit schemes

[5] Mainly of the defined contributions variety, although existing defined benefit arrangements comply under certain conditions.

have closed to new members and have been replaced with defined contributions arrangements.

Voluntary superannuation contributions are encouraged by the overall concessional tax treatment of superannuation, specific tax concessions for superannuation contributions (including the opportunity to 'salary sacrifice'[6]), and the government co-contribution scheme targeted at low and middle income earners.[7] In aggregate, voluntary superannuation contributions (that is, in addition to the mandatory 9 percent) are equivalent to around 7 percent of wages and salaries (Connolly 2007). Around 85 percent of retirees own their own home.

In 2009, more than 90 percent of Australian workers were covered by mandatory and voluntary superannuation. This represents around 96 percent of full time employees, 80 percent of part time workers, and 73 percent of casual and self employed workers. Total superannuation coverage has doubled since the introduction of mandatory (and quasi mandatory) superannuation contributions from the late 1980s.

2.4 The Australian superannuation industry

Since 2005 most Australian retirement savers have been able to choose the superannuation fund into which their mandatory contributions are made. Previously employers were responsible for fund choice. As well, many superannuation funds offer choice of investment option(s).

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[6] Under 'salary sacrifice', employee contributions can be converted to employer contributions and therefore taxed at the lower rate applying to employer contributions.

[7] The government co-contribution provides a matching government contribution of up to 150% of voluntary contributions of up to $A1,000 pa. In 2008-09 it applied in full to incomes below $A30,342 and partially to incomes up to $A60,342. In the 2009-10 Budget released in May 2009, the government announced a temporary reduction in the matching co-contribution (as part a package of measures designed to address current and future fiscal restraint associated with the global financial crisis) to 100% in 2009-20, 2020-2011 and 2011-12 and to 125% in 2012-13 and 2013-14.

Table 2.1: Retirement income provision in Australia in 2009

Age Pension [a]	Superannuation Guarantee	Voluntary retirement saving
Payments commenced: 1909	Established: 1992	First introduced: 1850s
Contributions: Non contributory	Contributions: 9% earnings (paid by employer)	Contributions: average 7% earnings
Potential coverage: Available to males aged 65 and over and females aged 63.5 and over (increasing to age 67 by 2023 for both males and females), subject to income and assets tests.	Potential coverage: Employees aged 18-70 earning at least $A450 per month	Encouraged by: overall tax concessions (since 1915), salary sacrifice, government co-contribution for employees and the self-employed on incomes less than $A60,342.
Funding: General revenue	Funding: Individual accounts in privately managed superannuation funds	
Benefits: 27.7% average male ordinary time earnings (single), 41.3% average male ordinary time earnings (couple). Indexed to greater of CPI and pensioner and beneficiary living cost index and benchmarked to average male ordinary time earnings.	Benefits: Based on defined contributions, preserved to age 55 (increasing to age 60), no early withdrawals, choice of lump sum or income stream.	
Taxation: Taxed, but subject to tax offsets.	Taxation: TTE	
Actual coverage: Around 75% of persons of eligible age receive some Age Pension. Around 56% of age pensioners receive the full rate of Age Pension.	Actual coverage: Mandatory and voluntary superannuation – 96% full time employees, 80% part time employees, 73% casual employees and the self employed.	

Source: Bateman and Piggott (2009), Australian Government (2009a, 2009c)

a. Changes to the Age Pension were announced following the release of the Harmer Pension Review in conjunction with the 2009-10 Budget. These included: an increase in the Age Pension age to 67 for both males and females, commencing in 2017; an increase in the single Age Pension from 25% to 27.7% (and the couples rate from 40% to 41.3%) of average male ordinary time earnings, changes to the income means test including a steeper withdrawal taper and concessions for labor income, and indexation of Age Pension payments to a Pensioner and Beneficiary Living Cost index.

The Australian superannuation industry is characterized by its diversity. There are three quite different types of superannuation funds: not-for-profit superannuation funds, for-profit (retail) superannuation funds and self-managed superannuation funds. The former group is further split into single-employer private sector superannuation funds (corporate funds), multi-employer superannuation funds (industry funds) and superannuation funds for public sector employees (public sector funds). In addition, retirement saving accounts (RSAs) offered by financial service providers are available as a low cost alternative.

These different types of superannuation entities were introduced in response to different historical and policy considerations. The public sector superannuation funds appeared first in the nineteenth century, followed by corporate superannuation funds for white collar workers. Retail superannuation funds were established by life insurance companies to promote personal superannuation following the introduction of tax concessions in 1915, while the introduction of award superannuation in the 1980s followed by the superannuation guarantee in 1992 led to the introduction and growth of the multi-employer industry superannuation funds. Self managed superannuation funds, which are small funds with five or less member-directors, are becoming increasingly popular as a retirement savings vehicle for the self-employed, while RSAs were introduced in the 1990s as a low-cost option for transient workers with small contributions.[8] Any of these superannuation fund types may be 'open' to the general public (public offer funds) or 'closed' to all except members of a firm or industry (non public offer funds).

There has been substantial consolidation in the industry with the number of superannuation funds (excluding self managed funds) decreasing from more than 5,000 in the mid 1990s to less than 500 by 2009. As well, there has been a gradual move away from defined benefit to defined contribution funds, and from closed funds to public offer funds. A recent trend has been the closure of traditional 'corporate funds' in favor of contracted-arrangements with retail funds (corporate retail funds) and a rapid growth of self managed superannuation funds.

[8] RSAs are simple capital guaranteed products offered by financial institutions. They are owned and controlled by the superannuation members holding the accounts and are taxed and regulated like all other superannuation accounts. They are not a popular choice and currently account for less than 0.1% of superannuation assets.

The current structure of the superannuation industry is summarized in Table 2.2.

Table 2.2: The Australian superannuation industry at June 2009

	Assets ($A billion)	Number of funds	Number of accounts ('000) [a.]
Fund type			
Not-for profit funds			
Corporate	54.8	190	661
Industry	191.0	68	11,213
Public sector	151.6	40	3,002
Total	397.5	298	14.876
For profit funds			
Retail	306.0	165	16,376
Self managed superannuation funds [b.]	334.7	414,595	754
Other [c.]	108.8	194	5,919
Total [d.]	**1,076.7**	**415,252**	**32,006**

Source: APRA (2009a, 2009b).

a. June 2008.
b. Includes small APRA funds.
c. Includes single member approved deposit funds, pooled superannuation trusts and balance of life office statutory funds.
d. Includes Retirement Savings Accounts which account for $A1.3 billion of assets across 8 providers.

In June 2009, aggregate assets of Australian superannuation funds totalled $A1.08 trillion (or more than 100 percent of GDP). Due to the sharp fall in equity prices over 2008-09, this is 13.2 percent lower than the peak of $A1.24 trillion recorded in December 2007, but represents a recovery from the $A1.02 trillion recorded at end March 2009. Overall there has been substantial growth in superannuation assets over the past decade from $A245 billion or 40 percent of GDP in 1997 (APRA 2007).

2.5 The taxation and regulation of superannuation

Australian superannuation is taxed under a comprehensive income tax regime. Superannuation contributions are subject to tax (T) at different rates depending the source or quantum of the contributions, superannuation fund earnings are subject to tax (T) at different rates by type of

income, and superannuation benefits are free of tax (E) for persons age 60 and above[9]. Where the benefits satisfy certain design features the earnings on the underlying assets are also free of tax. These arrangements are the result of two decades of evolution from an expenditure tax regime prior to 1988 (EET, where contributions and superannuation fund earnings were exempt from tax, but benefits taxed), to a hybrid regime between 1988 and 2007 (TTT, where contributions, fund earnings and benefits were all taxed, albeit at concessional rates) and finally the current TTE regime since July 2007. The broad features of the current tax treatment of superannuation contributions, fund earnings and benefits are summarized in Table 2.3.

Table 2.3: The Taxation of Superannuation [a]

Contributions	Superannuation fund earnings	Benefits
Tax treatment differs by type of contribution and amount	**Tax treatment differs by income type and retirement phase**	**Tax treatment differs by age and benefit type.**
Employer contributions: Tax deductible to employer. **Employee contributions:** Out of after-tax income OR can be 'salary sacrificed' to effectively become employer contributions (Excess contributions tax applies above cap). Low/middle income earners eligible for a government co-contribution. **Self employed contributions:** Tax deductible. Eligible for government co-contribution. **Spouse, child contributions:** Tax rebates available (capped).	**Concessional contributions[b]:** Taxed at 15%. (Excess contributions tax applies above cap). **Interest income:** Taxed at 15%. **Dividend income:** Taxed at 15%, eligible for imputation credits. **Foreign source income:** Taxed at 15%, with credits for foreign tax paid. **Realised capital gains:** Taxed at 15% or 10%, depending on date of acquisition.	**Benefits taken between age 55-59** **Lump sum:** Taxed at 15% above threshold. **Income stream:** Taxed at marginal income tax rates, 15% tax rebate. **Benefits taken from age 60** **Lump sum:** No tax on benefits. **Income stream:** No tax on benefits. Income on underlying assets tax free if an immediate annuity or if minimum annual drawdown requirements are satisfied.

Source: Bateman and Kingston (2007), CCH (2008).

a. A small minority of superannuation funds are 'tax exempt'. No taxes apply to fund income and higher taxes apply to benefits.
b. Concessional contributions are contributions which have received a tax deduction – employer and self-employed contributions.

[9] Where the benefits are paid from a 'taxed' superannuation fund – the most common case.

The taxation of superannuation has been criticized on the grounds of complexity and its separation from the personal income tax schedule. The lack of alignment with the personal income tax system has meant that the flat rate superannuation tax rates have become increasingly regressive as they have failed to benefit from the substantial falls in personal income tax rates over the past two decades. As well, the reduced visibility of superannuation taxes as compared with personal income taxes reduces the political insulation offered by private retirement income provision.

Despite the complex nature of the superannuation tax system, the overall tax burden is concessional compared with other forms of personal saving (for some, but not all fund members). The standard metric for measuring tax concessions is the 'tax expenditure'. Australia produces an annual tax expenditure statement in which all tax concessions are measured with reference to a comprehensive income tax benchmark. Under this benchmark superannuation tax expenditures are estimated at $A29.2 billion, or 40 percent of total tax expenditures in 2008 (Treasury 2008a).[10] However, the tax expenditure methodology has been keenly debated. Criticisms centre on the benchmark used (a comprehensive income tax rather than an expenditure tax measure), the assumption of no behavioural change (that is, that the same amount of voluntary superannuation contributions will be made in the absence of the tax concessions) and the failure to take account of the net fiscal impact of the superannuation tax concessions (that is, that future Age Pension eligibility will be reduced due to increased private retirement savings).

Stand alone analysis of superannuation taxes shows a significant tax advantage for middle and high income earners (Ingles 2009). The distribution of superannuation tax expenditures has been shown to be far more equitable both vertically and by gender when the total fiscal impact is considered (Rothman 2009), although it is mostly the high income earners who are able to take advantage of the tax concessions.

[10] However this estimate is considerably lower at $A4.6 billion under an alternative expenditure tax benchmark (AFTC 2008c).

The taxation of superannuation is under consideration by the Henry Review of Australia's Future Tax System. While the final recommendations have yet to be announced and any change to the tax free status of retirement benefits has been ruled out, the Review Panel has made an in-principle recommendation that the 'fairness of tax concessions for contributions be improved, including by broadening access to them and limiting generous salary-sacrifice concessions' (AFTS 2009, page iii).

The regulation of superannuation has also been the subject of considerable change over the past three decades. From a position of self regulation in the early 1980s, superannuation and the superannuation industry is now subject to three regulators: the Australian Prudential Regulation Authority (APRA) which is responsible for the prudential regulation of superannuation funds and RSA providers (but not self managed superannuation funds), the Australian Securities and Investment Commission (ASIC) responsible for consumer protection, and the Australian Taxation Office (ATO) responsible for the regulation of self managed superannuation Funds. Prudential issues are largely left to superannuation fund trustees who are personally liable to fund members for their decisions. With the exception of a 5 percent ceiling on in-house investments and a 'no borrowing' rule, there are no asset requirements, nor is a minimum rate of return required. A current policy question concerns how to interpret the trustee's 'duty to implement an investment strategy' in the current environment where most superannuation fund members are able to choose their own investment option out of menus of between 1 and over 2000 investment options (Donald 2008, APRA 2009c).

An important feature of the Australian arrangements is the simultaneous existence of quite differently constituted boards of trustees. The not-for-profit superannuation funds (corporate, industry and public sector funds) are governed by boards of trustees comprising equal representation of employees and sponsoring employers. However, the for-profit (retail) superannuation funds are governed by a corporate trustee, where the trustee directors have no relationship with the fund members or sponsoring employers. It has been argued that the composition of the trustee board matters for fund governance and subsequently superannuation fund performance. Not-for-profit superannuation funds with 'equal representation' trustee boards have been shown to outperform the for-profit retail funds with

corporate (independent) trustees across a broad range of performance metrics (Coleman *et al* 2006, Ellis *et al* 2008).

The governance and management of superannuation funds is under consideration by the Cooper review of the superannuation system, due to report in June 2010 (Super System Review 2009a).

2.6 Retirement Benefits

Current Australian policy does not mandate type of retirement benefit. Options include lump sums, phased withdrawal products and annuity products. Given the quite recent and phased-in introduction of mandatory private retirement saving (award superannuation from 1986 and the superannuation guarantee over 1992-2002), most Australian retirement savers currently reach retirement with a modest superannuation accumulation and eligibility for the public means-tested Age Pension. Average superannuation accumulations at retirement in 2009 are around only $140,000 for men, $65,000 for women and $175,000 for a retiree household[11] (ASFA 2009). However, these are expected to increase over time as workers reach retirement with progressively more years of mandatory and voluntary superannuation contributions.

The take-up of public and private retirement benefits in Australia in 2009 is summarized in Table 2.4.

Table 2.4: Retirement Benefits in Australia - June 2009

Benefit Type	**Coverage**
Public Age Pension	75% eligible aged receive some Age Pension. 56% paid at the full rate.
Private retirement benefits	
Lump sum	56% of benefits paid
Income stream	44% benefits paid
Life annuity	Negligible - 61 policies sold in 2008
Term annuity	6% (market share by assets)
Account-based pension	94% (market share by assets)
Superannuation pension [a]	na

a. An indexed lifetime pension paid by some defined benefit plans. There is no publicly available information on the share of superannuation pensions.
Source: Plan for Life Research (2009) and APRA (2009a, 2009b).

[11] However 70% of retirees have less than the average.

The public Age Pension

The Age Pension is payable to women from age 63.5 (increasing to age 65 by 2014) and to men from age 65. It is indexed to the higher of prices and wages growth and is set at 27.7 percent of average male ordinary time earnings (AWOTE) for single retirees and 41.3 percent for retiree couples.[12] Net replacement rates are higher as the Age Pension is exempt from income tax. Following the comprehensive analysis of the pension system under the Harmer Review (Harmer 2009), the single and couple pension rates will increase in September 2009, and the Age Pension age for both men and women will increase to 67 over the period 2017-23. Preliminary recommendations of the Henry Tax Review include the possibility of gradually aligning the superannuation preservation age (currently age 60[13]) with the Age Pension age.

Eligibility for the Age Pension brings with it access to other payments and allowances, including: a pharmaceuticals allowance, the pension concession card, a telephone allowance and discounts on public utilities.[14] Age Pension recipients are also eligible for a Health Card and rental assistance.

The Age Pension is means tested by both income and assets with the test paying the lower rate of Age Pension applying. Under the income test the pension is withdrawn when income exceeds a threshold (the income test free amount). Following the recent review of public pensions, the taper (ie the rate at which the pension is withdrawn) rose from 40 to 50 cents for each dollar of private income above the threshold in September 2009. As well concessional arrangements for employment income were introduced with $A250 of the first $A500 per fortnight of employment income now exempt from the income test.

The assets test reduces the Age Pension by $A1.50 per fortnight for every $A1,000 of assets (excluding the retirees own home) above statutory thresholds which differ between home owners and renters and by singles and couples. Preliminary recommendations of the Henry Tax

[12] The Age Pension amounts increased in September 2009 following recommendations of the Harmer Review announced in the 2009-10 Budget (Harmer 2009, Australian Government 2009b, 2009c). previously the single Age pension was set at 25% of average male earnings and the couple pension at 40%.

[13] For persons born after 1964 – previously age 55.

[14] In September 2009 these benefits were consolidated into a 'pension supplement' and the aggregate amount increased.

Review include 'improving the fairness and coherence of the existing pension means tests, possibly through a single test, and improving incentives to work beyond retirement age' (AFTS 2009, page iii). In 2009 around 75 percent of Australians of eligible age receive some Age Pension with 56 percent of these persons paid at the full rate. Key features of the Age Pension are summarized in Table 2.5.

Table 2.5: Features of the Age Pension [15]

Features	Detail
Eligibility age	65 years (males), 63.5 years for females (65 by 2014). Increasing to age 67 (males and females) from 2017-2023.
Financing	General revenues. Currently 2.7% GDP
Amount: Single rate Couple rate	27.7% average male earnings. 41.3% average male earnings.
Indexation	Indexed to the greater of the consumer prices and a 'new' Pensioner and Beneficiary Living Cost Index. Benchmarked to 27.7% average male ordinary time earnings.
Income test	Age Pension withdrawn at 50 cents per dollar of private income above an income test free threshold – currently $A142 per fortnight for singles and $A248 per fortnight for couples. (Withdrawal rates increased from 40 cents per dollar in September 2009). Maximum fortnightly private income to receive a part Age Pension ($A1,485.80 single/ $A2,274.00 couple). Concessional treatment for employment income introduced in September 2009.
Assets test	Age Pension withdrawn at $A1.50 per fortnight for every $A1,000 of assets above thresholds which differ between home owners/renters and by single/couple. Assets thresholds for homeowners of $A178,000 (single) /$A252,500 (couple), for non homeowners of $A307,000 (single) /$A381,500 (couple).
Tax treatment	Age Pension taxed subject to tax pensioner tax offset (ie effectively tax free).
Pension Supplement	Concessions for public utilities and other benefits. (From September 2009 increased and combined into a Seniors Supplement).
Additional benefits	Access to Health Card, rental assistance etc.

Source: Australian Government (2009b, 2009c), Harmer (2009), Centrelink website (www.centrelink.gov.au).

[15] Dollar amounts as of 1 July 2009.

Private retirement benefits

Australian retirees can elect to take their retirement benefits as one or a combination of a lump sum or a retirement income stream. Retirement income streams currently available include account-based pensions (a form of phased withdrawal product) and immediate annuities (including both term and life annuities).[16] [17]

Phased withdrawal products were first introduced in Australia in 1985 and are now the most popular form of retirement benefit. They are currently provided as products called 'account-based pensions' and 'transition to retirement pensions'. Both products allow retirees to invest their retirement accumulation in an investment portfolio according to their risk preference and (subject to restrictions – discussed below) to decide how much income they want to receive annually. Retirement benefits paid from an account-based pension are free of tax for persons age 60 and above, and, the earnings on the underlying assets are also free of tax where withdrawals satisfy minimum age-based annual limits (as specified in Table 2.6).[18] [19]

Table 2.6: Account-based pensions - minimum annual drawdown by age

Age	Per cent of account balance
under age 65	4%
65-74	5%
75-79	6%
80-84	7%
85-89	9%
90-94	11%
95 and over	14%

Source: Superannuation Industry (Supervision) Amendment Regulations 2007 (No.1), Schedule 3.

[16] Hybrid products have arisen from time to time in response to regulatory incentives. Term allocated pensions (TAPs), also known as market-linked income streams, were introduced in September 2004 in response to changes in the tax, Age Pension means test and regulatory requirements. TAPs had a similar account structure to allocated pensions, but a similar term structure to a life expectancy term annuity. TAPs are no longer marketed following further changes to the tax and regulatory requirements in September 2007.

[17] As well, those retiring with a defined benefit pension plan may receive a superannuation pension.

[18] In a response to the global financial crisis the minimum annual drawdown has been reduced by 50% to minimise the extent to which self-funded retirees are required to drawdown capital following the large falls in superannuation assets over 2009-10.

[19] Account-based pensions are discussed in detail in Bateman and Thorp (2008).

Transition to retirement pensions are available to persons with a preservation age of between 55 and 60. These products allow then to access their superannuation benefits without having to retiree, provided the benefits are taken as an income stream with a maximum annual drawdown of 10 percent of assets.

In the absence of compulsory retirement income streams, the approach of Australian policymakers has been to use tax, Age Pension means test and regulatory incentives to encourage the take-up of income streams with particular characteristics. Examples of the tax incentives include: a tax exemption for the earnings of assets underlying retirement benefits with specific design features – such as longevity or indexation; the exclusion of the return of capital from assessable income for annuity payments, and a 15 percent annuity rebate. Age Pension means test incentives had included full or part exemption from the Age Pensions assets test, and a concessional treatment of income under the income test.

Initially life annuities received the greatest incentives, but in order to encourage the take-up of any form of income stream (rather than a narrowly defined lifetime indexed annuity), these incentives were gradually extended to non-annuitized products such as the account-based pensions so popular today. Following the Simply Super reforms of 2006-07[20], which abolished taxes on superannuation benefits for persons aged 60 and above and simplified the Age Pension means tests, the tax-transfer preference for different retirement income streams was eliminated.

Australian retirees have always preferred non-annuitized products and, until recently, the retirement benefit of choice was a 'lump sum'. However, following the changed tax and Age Pension means-test arrangements in 2007, the gradual shift to phased withdrawal products (account-based pensions) has accelerated. Income streams now account for over 44 percent of retirement benefits (by assets) (APRA 2009b), with almost all of these account-based pension products. By contrast, the market share of immediate annuities has fallen from a peak of 30 percent of the income stream market in 1999, to around 6 percent currently. Life annuities

[20] A series of reforms to superannuation and the age pension, announced in the May 2006 Budget with the aim of reducing complexity in retirement income provision.

have always been the least popular type of retirement income stream and demand has fallen severely since the 2007 tax and means test changes. In 2008 only 61 new life annuity policies were issued.

The lack of products that retirees can purchase to insure against longevity risk, as well as the very low demand for the currently available products has been highlighted as a matter of concern by the Henry Tax Review Panel. Recommendations addressing these issues are expected in the final report (due in December 2009).

Future incomes in retirement

With almost all employees now covered by the superannuation guarantee, many workers with additional voluntary superannuation coverage and improvements in the vesting, portability and preservation of superannuation benefits, the composition of retirement income will change in future years as more Australians retire with a working life of superannuation contributions. Official estimates indicate that a single male on median earnings with 35 years of mandatory superannuation contributions could expect to retire with a total (Age Pension plus superannuation) replacement rate of 78 percent. Table 2.7 illustrates total replacement rates, the share of private retirement income and the proportion of the maximum rate of the Age Pension received for typical retirement savers.

Table 2.7: Projected replacement rates and composition of retirement income

Income	Projected replacement rate [a.]	Proportion of retirement income from superannuation [c.]	Proportion of maximum rate of Age Pension
Median income	77.7%	37.3%	94.5%
AWOTE [b.]	67.2%	46.0%	88.8%
1.5 x AWOTE	55.4%	60.0%	76.5%
2.5 x AWOTE	47.0%	76.5%	55.2%

Source: AFTS (2009), Table F.1, Table 4.1.

a. After 35 years of contributions. Assumptions include inflation of 2.5% pa, wages growth of 1.6% pa, superannuation fund earnings of 6.5% pa. This definition of the replacement rate compares the individual's spending power before and after retirement (that is, net of taxes).
b. AWOTE is average weekly ordinary time earnings – around $A60,000 in May 2009.
c. The remainder of retirement income is from the Age Pension.

These estimates suggest that even under a fully mature superannuation guarantee, the retirement incomes of many Australian retirees will comprise both a part public Age Pension and a private superannuation component. Between June 2009 and June 2050 the proportion of people of Age Pension age receiving the full Age Pension is projected to decline from 42 percent to 28.3 percent, while those receiving a part Age Pension is expected to increase from 33 percent to 45.3 percent. The proportion of non-pensioners is projected to increase only marginally from 25 percent to 26.4 percent (Fahcsia 2008, Harmer 2009).

2.7 Discussion

The ability of Australia's retirement income system to provide adequate and secure retirement incomes depends on how well it addresses the economic and financial risks faced by individuals in retirement. The keys risks are replacement risk, investment (or market) risk, longevity risk, inflation risk, contingency risk, default risk and political risk. Retirement benefits currently available to address these risks include superannuation benefits (which can be taken as a lump sum and/or an income stream) and the publicly provided Age Pension.

The defined contributions nature of most superannuation arrangements leaves most Australian retirement savers exposed to investment (market) risk. As well, failure to mandate life annuities combined with virtually no voluntary annuitization exposes retirees to both longevity and inflation risk. The adequacy of the 9 percent minimum contribution as also been questioned. While a preliminary report of the Henry Review panel endorsed 9 percent as adequate for a full working life of mandatory contributions (AFTS 2009), many submissions to that Review argued that 9 percent was insufficient for workers on very low incomes or with broken work patterns (ASFA 2009, Industry Super Network 2009).

Of the remaining risks, the popular account-based pensions do cover contingency risk by allowing large and lumpy withdrawals to meet unexpected contingencies (such as health and aged care expenses), but all systems remain vulnerable to some degree of political risk (such as changes in the tax system or regulatory arrangements). On the other hand, the design of the

Age Pension as a lifetime income stream effectively indexed to average earnings provides cover against investment risk, longevity risk and inflation risk.

The vulnerability of the superannuation system to economic and financial risks has been clearly evident over 2008-09 with global financial crisis precipitating a sharp downturn in international and domestic share prices, lower cash and fixed interest yields and depressed property prices. Over the 12 months to March 2009, aggregate superannuation assets fell by 10.8 percent. By type of superannuation fund this represents a fall of 8.8 percent in industry fund assets, 18.8 percent (corporate funds), 15 percent (public funds), 17 percent (retail funds) and 3.8 percent for self managed funds (APRA 2009b), and has affected both retirement accumulations and account-based pension products. However, under Australia's means tested Age Pension this fall in private retirement incomes has been cushioned by increased eligibility for the Age Pension. Between September and December 2008 there was a significant increase in applications for the Age Pension and in the amount of part Age Pensions (Macklin 2009, Robertson and Sawyers 2009). While this response clearly illustrates the insurance characteristics of the means tested Age Pension, it does, however, raise moral hazard issues.

Overall, the public and private arms of Australia's retirement income arrangements complement each other and together have the potential to provide cover against the main economic and financial risks faced in retirement. However, with the increasing reliance on defined contributions arrangements, this potential will only be realised where retirement savers remain engaged and make appropriate retirement saving choices throughout their life. The capacity of Australian retirement savers to undertake this important decision making is addressed next.

3. Risks and responsibility in retirement saving

The emphasis on defined contributions retirement income provision place much of the risk and responsibility associated with retirement income provision on individual retirement savers (rather than employer or government sponsors). As a result superannuation fund members are required to make crucial decisions throughout both the accumulation and decumulation phases of retirement saving including - whether and how much to contribute? Which superannuation

fund? Which investment option(s)? When to retire? And which retirement benefit? Throughout this process individual retirement savers must keep track of possibly numerous superannuation accounts as they move in and out of the workforce and between jobs.

The track record of Australian retirement savers ability to engage in this important decision making is poor. There are over 6 million superannuation accounts on a 'Lost Members Register'; few members actively choose their superannuation fund'; generous tax concessions have not generated a windfall of voluntary contributions; over 50 percent of superannuation assets are invested in 'default' options; and very few Australian retirees choose retirement benefits which adequately insure against the economic and financial risks they will face in retirement. These issues are discussed further below.

3.1 Failure to engage – lost superannuation and multiple accounts

The failure of Australian retirement savers to understand the responsibilities associated with defined contributions retirement saving is clearly illustrated by the large and growing number of 'lost' superannuation accounts and the increasing prevalence of 'multiple accounts'. Recent trends are summarized in Table 3.1

Table 3.1: Trends in 'lost' and 'multiple' accounts

	2000	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**
Number of 'lost' accounts, mill	4.7	3.8	4.7	4.6	4.9	5.4	5.7	6.1	6.4
% total accounts	21.9	16.7	19.7	18.3	18.3	19.5	19.6	20.0	20.5
Amount of lost accounts, $A bill	7.3	5.5	6.8	7.3	7.3	8.2	9.7	11.7	12.9
% total superannuation assets	1.5	1.1	1.3	1.3	1.1	1.1	1.1	1.0	1.1
Multiple accounts: superannuation Accounts per person	1.9	1.9	2.1	2.2	2.3	2.4	2.5	2.6	2.7

Source: Australian Taxation Office (2009).

Superannuation becomes 'lost' when a superannuation fund loses track of the member and the member takes no action to contact the fund. Multiple accounts arise when members leave and/or change jobs or hold a number of jobs consecutively. Until recently the prevalence of lost or multiple accounts was exacerbated by the combination of the compulsory employer 9

percent contribution and employer choice of fund which may have worked to distance the fund member from the retirement saving process.[21]

At June 2008 an estimated $A12.9 billion of superannuation assets in around 6.4 million accounts (or one fifth of the 31.3 million superannuation accounts in Australia) was reported as being 'lost'. This represents a 36 percent increase since 2000 and is despite public-awareness campaigns by superannuation funds and government, the use of tax file numbers to identify superannuation accounts, and an online interface with the 'Lost Members' Register'.[22] There has been a similar increase in 'multiple' accounts from 1.9 to 2.7 accounts per person between 2000 and 2008.

'Lost' accounts do matter. The large number of lost accounts directly impacts on the retirement savings of individuals, while at the same time increasing the costs of superannuation funds that may be passed on to fund members. Similarly, multiple accounts duplicate administrative costs.

The government is aware of the 'lost accounts' issue and is reviewing the current arrangements. A discussion paper was released in 2008 canvassing possible initiatives, including automatic consolidation of multiple accounts and a clearing house for superannuation contributions (Treasury 2008b). The government has announced a plan to partially address this issue by requiring balances in lost accounts to be transferred to the Commissioner of Taxation where the balance is less than $200 or the account has been 'lost' for at least 5 years (Treasury 2009).

3.2 Choice of superannuation fund

When the superannuation guarantee was introduced in 1992, it was the employer's responsibility to both pay the mandatory contribution and to choose the superannuation fund into which these contributions were made. Since 2005 most superannuation fund members have been able to choose and switch superannuation funds, however, take-up of fund choice has been minimal. Employees who fail to choose a superannuation fund are allocated a 'default

[21] Other explanations for both lost and multiple accounts include the continued existence of defined benefit schemes (which cannot be consolidated with defined contributions arrangements), administrative difficulties associated with consolidation and ignorance of fund members (see ACA 2006, Clare 2007).

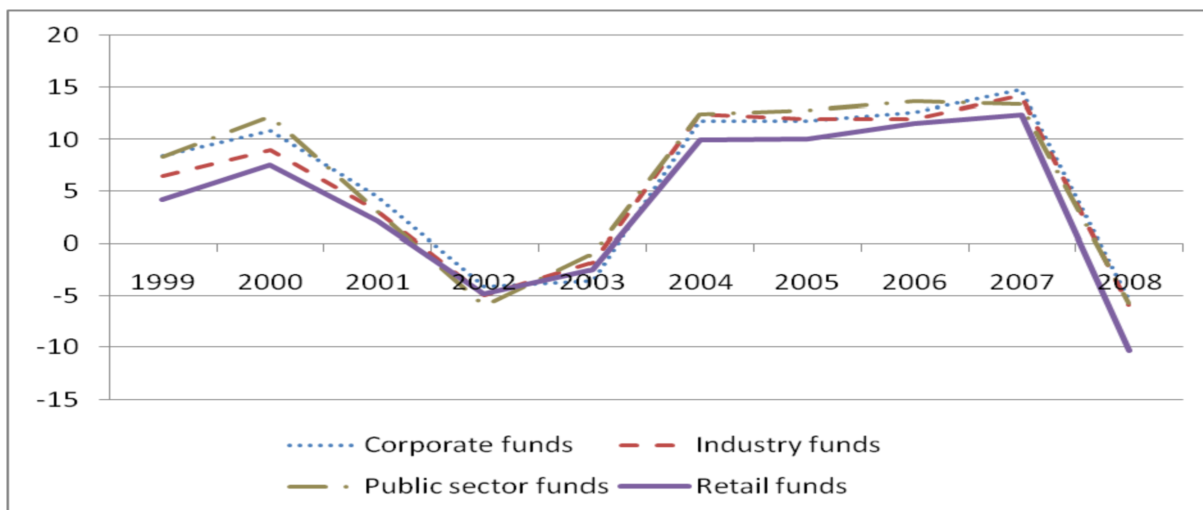
[22] For more information on 'lost' accounts see Bateman (2008).

fund'. Industry estimates indicate that of the 10 percent of fund members who changed superannuation fund in 2007 only 2.5 percent of members 'actively' changed and most new fund members 'defaulted' into the fund chosen by their employer. Overall, 4.4 percent of members changed superannuation fund because they changed jobs, 0.6 percent changed fund because their employer changed fund and 2.5 percent changed fund to consolidate multiple funds (Ernst and Young 2008).

Type of superannuation fund does matter. Not-for-profit superannuation funds (corporate, industry and public sector funds) have consistently outperformed for-profit retail funds (but not necessarily corporate retail funds) under a variety of performance metrics including expenses, return on assets, and risk adjusted performance.

Return on assets (ROA) data at the superannuation fund level, published annually by the industry regulator APRA, show consistently lower performance of retail funds compared with not-for-profit funds. Over the ten year period 1999-2008, the annual return on assets averaged 4.1 percent for retail funds compared with 6.2 percent for corporate funds, 5.7 percent for industry funds and 6.3 percent for public sector funds. Recent trends are illustrated in Figure 3.1.[23]

Figure 3.1: Return on assets 1999-2008



Source: APRA (2009b).

[23] Return on assets (ROA) is calculated as (Fund earnings – expenses-taxes)/average assets for the period.

Similar trends are evident in comparisons of expenses at the superannuation fund level. For example, Chant West report aggregate management expenses (fees to members) in 2008 of 1.32 percent assets for retail funds, compared with 1 percent assets for corporate funds, 0.72 percent assets for industry funds and 0.57 percent assets for public sector funds (Chant West 2008).[24]

Using additional information from a quarterly survey of superannuation funds, Coleman, Esho and Wong (2006) estimated a number of measures of risk adjusted performance. Again the not-for-profit funds dominated. Estimated Sharpe ratios[25] were 20 to 30 percentage points higher and estimated alphas[26] were 0.23 to 0.60 percentage points higher for not-for profit funds than for the for-profit retail funds. Coleman *et al* (2006) conclude that the differences in risk adjusted performance are due to agency costs associated with the governance structure and management practices of retail funds.[27]

These and similar 'all of fund' comparisons have been criticized by segments of the superannuation industry who argue that large differences between for-profit retail funds and not-for-profit funds preclude conventional comparisons. In particular it is argued that: retail funds are more diverse and include both pre and post retirement income products; aggregate fund performance is influenced by member-directed investments resulting in differences in investment choices offered, and chosen, by fund type; there may be differences in the demographic composition of funds; for-profit funds require an adequate return on capital invested in providing pension fund services, which decreases the net returns provided to members; some employer sponsors subsidize expenses for some not-for-profit funds; data reporting methods differ systematically across fund types; and services, such as the extent of financial advice and choice, may differ between fund types (Cheong and Zurbruegg 2008).

Ellis, Tobin and Tracey (2008) have addressed some of these concerns by comparing the performance of a single investment option (the balanced option) rather than the entire

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[24] Estimated fees on a $A300,000 superannuation account.

[25] Sharpe ratio = (ROA - risk free return)/standard deviation of return on assets.

[26] 'αэ measures the return of an actively managed portfolio relative to the return on a benchmark portfolio.

[27] Retail funds are governed by a corporate trustee rather than a trustee board with equal representation of members and employer sponsors.

superannuation fund. However, after controlling for asset allocation, manager skill and differences in average account balances, retail funds were still found to under-perform relative to not-for-profit funds.

The need for comparative information on superannuation funds was recognized in the Financial Services Reform (FSR) Act 2001 which introduced financial product disclosure for providers of financial products, including superannuation products. Current rules require the provision of a Product Disclosure Statement (PDS) which summarizes the key features of the product – including benefits, risks, costs, commissions, significant characteristics, dispute resolution, tax implications and cooling off arrangements. Unfortunately, implementation has resulted in the production of long and complex product disclosure statements of around 100 pages (with an additional 100 pages or so if investment choice is offered). The government is seeking to change this practice and has indicated a preference for simplified disclosure based on the 4-page product disclosure statements required for the recently introduced First Home Saver Accounts. The current Cooper review of the superannuation system will consider many of these issues including industry structure, competition, fees and charges, and information and advice provided to fund members (Super System Review 2009a).

3.3 Choice of investment option

Once in a superannuation fund, most members are offered choice of investment option. Investment choice menus range from short lists of multi-manager diversified options (given generic names such as ‘conservative’, ‘balanced’, ‘growth’ etc…) to longer and more complex menus comprising multi-manager diversified investment funds, single manager diversified and specialist investment funds and even individual shares. In 2008, the number of investment options ranged from 1 to 2,432 (APRA 2009c). The typical not-for-profit superannuation fund (that is, a corporate, industry or public sector fund) offered 8-10 investment options while the typical retail (for-profit) superannuation funds offered 112 investment options. Investment choice for self managed superannuation funds is unlimited.

For those members who do not actively chose, most not-for-profit and some for-profit retail superannuation funds offer a ‘default’ investment option, In the not-for-profit sector, the

default option is generally the 'balanced' option. There are no legislative requirements for the composition of a 'balanced' investment option and the asset allocation differs from fund to fund. Table 3.2 reports the average asset allocation of the default investment options in 2008. All major asset classes are represented with around 65-75 percent allocated to risky assets.

Table 3.2: Asset allocation of the default strategy in 2008

Asset class	Assets (%)
Australian shares	29%
International shares	23%
Listed property	3%
Unlisted property	7%
Australian fixed interest	11%
International fixed interest	6%
Cash	9%
Other assets	13%
Total	100%

Source: APRA (2009b), Table 18.

In 2008 close to 50 percent of superannuation assets, comprising around 58 percent of corporate and public sector fund assets, 80 percent of industry fund assets and 27 percent of retail fund assets were placed in the default investment option (APRA 2009a: Table 17)[28]. Table 3.3 summarises recent trends.

Table 3.3: Investment choice – take-up trends

	Corporate fund	Industry fund	Public sector fund	Retail fund	Total
Number of investment choices	7	9	8	112	45
% assets subject to investment choice	93%	92.4%	96.9%	87.3%	93%
% assets subject to choice in default options [a]	57.5%	79.8%	59.5%	27%	49.7%

Source: APRA (2009), Table 17.

Failure to choose an investment option or choice of an inappropriate investment option does matter. Asset allocation determines the risk/return characteristics of the retirement savings and therefore the expected accumulation at retirement (and beyond for account-based pensions). Exposure of retirement savers to risky assets is not of itself an issue of concern.

[28] However, the data does not distinguish between those actively chose and those who 'defaulted' to the balanced option.

What is of concern is that the asset allocation may not be consistent with a retirement savers individual circumstances and taste for risk (Viceira 2008). A recent experimental survey of investment choices of Australian retirees identified a very wide range of tolerance for risk indicating that many retirement savers may not be well served by default investment options (Bateman *et al*, 2009a, 2009b).

As with choice of fund, policymakers have sought to assist retirement savers with this complex task by requiring comprehensive financial product disclosure. However, as discussed above, it is not clear that the long and complicated PDSs provide useful guidance[29]. In fact, findings of the behavioral finance literature suggest that 'choice architecture', that is, the design and character of choice menus, may lead to sub-optimal investment choices (and consequently portfolio allocation) (Benartzi and Thaler 2009, Tapia and Yermo 2007).

The high exposure of older Australian workers and retirees to risky assets, which became evident during the financial crisis of 2008-09, raises questions about the ability of retirement savers to make appropriate investment choices.

3.4 Choice of additional voluntary contributions

A range of incentives are offered to encourage voluntary superannuation contributions to supplement the mandatory 9 percent superannuation guarantee. These include: the overall concessional tax treatment of superannuation, the ability to 'salary sacrifice', the availability of a government co-contribution, and tax rebates for spouse and child contributions. The self-employed, while not covered by the superannuation guarantee, also have access to these concessions. However, take-up has been modest.

Only around 25 percent of superannuation fund members make voluntary (post tax) employee contributions, 13 percent of fund members with employer contributions make additional pre tax (or salary sacrifice) contributions (ABS 2008), and only around 20 percent of those eligible have made contributions under the government co-contribution scheme.

[29] A recent decision to allow funds to provide financial advice for 'intra fund' transfers should assist (Bowen 2009).

The access and fairness of the tax concessions for superannuation has been highlighted as an issue of concern by the Henry Tax Review Panel (AFTS 2009). However in a possibly shortsighted move, all of these incentive arrangements were reduced in the 2009-10 Budget as part of a package of measures to minimize the size of the budget deficit in the wake of the global financial crisis.[30]

3.5 Choice of benefit type

Economic theory provides a strong justification for lifetime annuities (Yaari 1965, Davidoff *et al* 2005), yet voluntary life annuity markets around the world are very thin. Australia is no exception, with the demand for life annuities which was always very low, now almost non-existent with the demise of tax-transfer preference. Current Australian retirees favor lump sums and increasing account-based pensions. In 2008 around 56 percent of retirement benefits (by assets) were paid as lump sums, 42 percent as account-based pensions, less than 2 percent as term annuities and just 61 life annuities.

While the non-annuitized products currently available in Australia give retirees considerable flexibility, they do expose retirees to investment (or market) risk, inflation risk and longevity risk. And, as for the accumulation phase, investment risk has been exacerbated by the tendency to choose quite risky asset allocations. Again the behavior of Australian retirees in their choice of retirement benefit products raises questions about the policy design and industry practice in a defined contributions environment.

3.6 Discussion

The increasing focus on defined contributions retirement saving has transferred much of the responsibility and risk for retirement saving from employer and government sponsors to individuals. Australia is no exception with the mandatory superannuation guarantee built

[30] From 1 July 2009, the annual cap on concessional superannuation contributions was reduced from $A50,000 to $A25,000, and the transitional cap (which applies until 30 June 2012 for those aged 50 years and over) from $A100,000 to $A50,000. As well, the superannuation co-contribution matching rate was reduced from 150% to 100% for contributions made in 2009-10, 2010-11, and 2011-12 and to 125% for contributions made in 2012-13 and 2013-14.

around defined contributions, and a significant reduction in voluntary defined benefits superannuation.

It is not clear that Australian retirement savers are equipped to undertake the important decision making associated with defined contributions retirement saving. Many Australian retirement savers are failing to choose and default into 'default' superannuation funds and 'default' investment options, make on the minimum mandatory contributions, and fail to take benefits which provide insurance against longevity risk, inflation risk and market risk in retirement. Failure to choose or failure to choose appropriately could comprise the potential retirement incomes of current and future Australian retirees.

These outcomes are not surprising given recent findings of the behavioural finance literature which emphasise - for participation choice, investment choice and benefit choice - the importance of the design, characteristics of and 'frame' of choice menus (Benartzi, Peleg and Thaler 2009, Tapia and Yermo 2007).

4. Concluding comments

Over the past 25 years, Australia has built a strong mixed retirement income system based on a means tested public Age Pension and mandatory and voluntary private retirement saving. A key feature is the increasing reliance on defined contributions which has transferred much of the responsibility and risk for retirement saving to individuals.

The comprehensive review of Australia's retirement income arrangements under the Henry review of the tax system and superannuation policies, the Harmer review of the public pension and the Cooper review of the superannuation industry will result in improvements to many facets of policy design. Increases to the Age Pension amount and eligibility age and changes to the income means test were announced in May 2009 (2009c), while the Henry Review has foreshadowed more equitable tax concessions for superannuation contributions, simplification of the Age Pension means tests through a single means test, and increased availability of and access to products to manage longevity risk (AFTS 2009).

However, a challenge for these and future reforms is to ensure that retirement savers are equipped to undertake the crucial and often quite complex financial decisions required of them and that they are assisted by well designed policy and appropriate industry practice.

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