

# **Securing Lifelong Retirement Income: Global Annuity Markets and Policy**

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## Chapter 6

### **Too Much Risk to Insure? The Australian (non-) Market for Annuities**

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*Hazel Bateman and John Piggott*

Products and policies which provide protection against longevity risk – the risk that an individual might outlive his or her resources – are increasingly important in an era characterized both by increased life expectancy and increased uncertainty surrounding longevity. Yet the reality is that, as privately managed defined contribution (DC) retirement saving gains greater importance globally, both governments and the private sector are retreating from the provision of longevity insurance. The lack of formal structures and products offering such insurance does not mean that the risk has decreased, even though its financial implications may not find their way to the balance sheets of commercial or government institutions. Rather, the absence of organized longevity insurance structures suggests that when the outcomes are realized, the response will be arbitrary and likely to be driven by political exigency. Rewards for careful planning on the part of individuals, or of careful management by financial institutions, may be compromised by short-term policy reaction to circumstances which, in the large, can be anticipated now but for which current structures do not encourage planning.

Nowhere is this more true than in Australia, where heavy reliance for income replacement in retirement is placed on a mandatory DC structure, administered through private institutions. Accumulations are available as lump sums or income streams, free of any tax on withdrawal at age 60, and the tax, social security, and regulatory framework make it easier and less expensive to choose non-annuitized benefits.<sup>1</sup> The demand for immediate annuities, and particularly life annuities, in Australia has always been small and incentives to take annuitized products, introduced in conjunction with the private mandatory arrangements, have been gradually withdrawn. As a result, the market for life annuities has virtually disappeared. In 2001, only 1,927 life annuities were sold in Australia. By 2009, this had fallen to fewer than twenty.

While a relatively generous and widely accessed safety net exists, there are therefore no structures in place in Australia to encourage or mandate

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income replacement accumulations to be taken as annuitized benefits. Australia is the only country which relies predominantly on a mandatory privately administered DC structure for income replacement, not to have incentives or mandates in place for longevity insurance.

Nevertheless, there is cause for optimism, with some formative steps toward a revitalized market for longevity insurance products. The Australian wealth management industry (AFTS 2009) is actively developing new longevity products, while the government, in response to recent reviews of the superannuation industry, is looking at ways to both increase consumer demand and reduce supply-side constraints. With appropriate policy settings, better policy coordination, and private–public collaboration, it may be possible to resurrect the longevity insurance market without a need for compulsory annuitization.

For such a small market, the Australian retirement income product market commands extraordinary academic attention, perhaps because of its unique position as the only retirement market in the English-speaking world which operates in the context of a mandatory funded DC-type second pillar. Analysis has included the effectiveness of the tax-transfer provisions for retirement income products (Bateman et al. 1993; Bateman and Kingston 2007; Bateman and Thorp 2008), money’s worth estimates (Knox 2000; Doyle et al. 2004; Bateman and Ganegoda 2008), optimal timing of annuitization (Kingston and Thorp 2005), and supply-side constraints in the annuity market (Purcal 2006). Brunner and Thorburn (2008) provide an overview of the market for retirement income products. Yet, no one predicted the collapse of the Australian life annuity market over 2008–9.

The chapter does four things. First, we lay out the current state of retirement policy in Australia. Second, we describe the retirement product market in Australia and summarize trends by product type. We then relate the supply and demand for these products to policy change and to changes in longevity. It is clear that the market for life annuities, while small, has been very responsive to changes in the regulatory environment.<sup>2</sup> Finally, we report current progress and suggest ways forward that may provide the potential for a revival of the annuity market.

### **The Australian retirement income policy structure<sup>3</sup>**

Australian retirement policy differs from that characterized by the prototypical OECD structure. It comprises a means-tested safety net; a mandatory, privately administered DC-type income replacement scheme (the Superannuation Guarantee); and some additional concessions for further retirement saving. Each of these components is described briefly.

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### *The Age Pension*

Retirement provision in Australia relies heavily on an Age Pension, financed from general revenue, which currently pays 27.7 percent of male full-time earnings for a single pensioner, and 41.3 percent for a retiree couple. Net replacement rates are higher as the Age Pension is exempt from income tax, and payments are indexed to the greater of the growth of the consumer price index (CPI), a pensioner and beneficiary living cost index, and male average earnings, which ensures that it at least retains its relativity to wages. Eligibility for the Age Pension brings with it access to other benefits, including a pension supplement, a pensioner concession card, a Health Card, and rent assistance.<sup>4</sup> The access age is currently 65, but following a review of public pensions in 2008–9, it will rise to 67 over the period 2017–23 (Australian Government 2009; Harmer 2009).<sup>5</sup>

The Age Pension is available to all eligible residents regardless of work history, but is means-tested. The means tests, applying to both income and assets, have the effect of excluding the best-off quartile of age 65+ residents from receiving pension benefits. Rather, more than half of this group receives the full pension, with the remainder facing tapers on the means tests which reduce their entitlement below the full pension level. The income and assets tests are comprehensively defined, although the value of the retiree's owner-occupied home is excluded from the assets test. Until recently, differential application of these tests to retirement assets and benefits provided a mechanism for encouraging different types of retirement benefit products.

One way of thinking about the Australian Age Pension is to view it as a poverty alleviation instrument which excludes the rich, rather than a safety net targeting the poor. It is still the major source of income for most retirees, and along with the owner-occupied home, it is the major asset with which they enter retirement.

### *The Superannuation Guarantee*

The Age Pension is supplemented by a mandatory predominantly DC retirement saving program. The minimum contribution rate is 9 percent of earnings, payable by an employer, although the 9 percent is gross of taxes and fees. Known as the Superannuation Guarantee (SG), this arrangement was legislated in 1992, after a period of several years when a 3 percent pay-in was negotiated through centralized bargaining arrangements.

The rationale behind the SG can be provided easily enough, although it is unclear whether this rationale actually underpinned the policy initiative. If an unfunded transfer is to be provided to the elderly to alleviate old-age

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poverty, then compulsory saving will go some way to correcting the resulting price distortion which might be expected to lead some to save less. This idea, attributed initially to Hayek (1960) and elaborated elsewhere (e.g., Hubbard et al. 1995), has been formally incorporated into a mandatory saving model by von Weizsaecker (2003).

The SG contribution rate was phased in over time, with the 9 percent pay-in finally reached in 2002. Access age is 55, increasing to 60 for those born after July 1964.<sup>6</sup> It follows that for most of the 50 percent of employees who enjoyed no superannuation entitlements before mandation, the SG will not yield substantial lifetime income streams. It will be another twenty-five years before full working life contributions will be available to retiring cohorts.

Superannuation saving is subject to a complex tax regime. The tax treatment of contributions differs by contribution type (e.g., employer, employee, self-employed), with employee contributions generally paid out of after-tax income and employer contributions generally tax deductible to employers, but taxed as income in the hands of the superannuation (pension) fund.<sup>7</sup> Superannuation fund earnings are taxed but at different rates depending on the income type. Prior to the Simpler Super reforms of 2006–7, differential tax treatment across retirement benefit products provided another mechanism to encourage particular types of retirement income streams (Australian Treasury 2006; Bateman and Kingston 2007). But all superannuation benefits taken after age 60 have been free of tax since July 2007.<sup>8</sup> This last change has meant that tax incentives toward income streams relative to lump sums, and between different kinds of income streams, have almost disappeared for this age group, although those retiring before age 60 will still face differential tax rates depending on benefit type.

### *Voluntary retirement saving*

Many people have more than 9 percent of earnings contributed to their accounts, either because employers choose to make more than the minimum contribution or because employees supplement the 9 percent with contributions of their own. This may be thought of as voluntary employment-related saving. One of the advantages of the SG is that it has encouraged further voluntary saving of this type. Voluntary contributions are encouraged by the overall concessional tax treatment of superannuation saving, the government co-contribution scheme which provides a government contribution of 150 percent of the employee or self-employed contribution for low- and middle-income earners, and tax rebates for spouse and child contributions.<sup>9</sup> As well, some employees can take advantage of ‘salary sacrifice’ arrangements under which their (employee) contributions are treated as employer contributions for tax purposes (and are therefore

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subject to the 15 percent tax rate applying to employer contributions as opposed to the contributor's marginal tax rate).

While voluntary contributions on average amount to around 7 percent of wages and salaries (Connolly 2007), their distribution is concentrated. Survey data from the Australian Bureau of Statistics (ABS) indicate that, in 2007, only around 25 percent of superannuation fund members made voluntary employee contributions, 13 percent of members made 'salary sacrifice' contributions, and only 20 percent of those eligible made contributions under the government co-contribution scheme (ABS 2009).

Voluntary retirement saving includes not only Superannuation but also other forms of long-term saving through property, shares, managed investments, and, especially, homeownership. Homeownership is the most important non-superannuation asset for most Australians. Owner-occupied housing is worth more than half of the nation's private wealth, and more than 80 percent of retirees own their homes (most of them with no mortgage).

These arrangements may be contextualized by reference to Figure 6.1, which provides a schematic representation of the broad alternatives of retirement saving policy and practice. The boxes on the left may be thought of as three pillars of retirement provision policy, although definitions vary. The alternatives in bold on the right side of the chart indicate Australia's policy choices. Using the taxonomy of Figure 6.1, the three pillars of retirement income provision in Australia comprise the public Age Pension (Pillar 1); mandatory superannuation under the SG (Pillar 2), under which more than 95 percent of Australian employees are currently covered; and voluntary superannuation and other long-term saving through property, shares, and managed funds (Pillar 3). It is important to note that there is neither compulsion nor incentive to take a retirement benefit as an income stream, making Australia unique among those countries relying principally on a mandatory DC plan to deliver income replacement in retirement.

It is also important to appreciate the implications of the long lead time required for a fully funded retirement saving scheme to have its full impact. Current Superannuation accumulations for retirees are quite low, particularly for women. In 2007, average superannuation balances totaled \$A87,589 for males and \$A52,272 for females, with median balances significantly lower at \$A31,252 and \$A18,489, respectively.<sup>10</sup> While mean accumulations are higher for those close to retirement, at \$A164,679 for persons aged 55–64, this is equivalent to only just over three times average male earnings, and it is considerably higher than the median accumulation for this age group of just \$A71,731 (ABS 2009). As a result, around 75 percent of Australians of eligible age receive some Age Pension, with around 60 percent of these paid at the full support rate.

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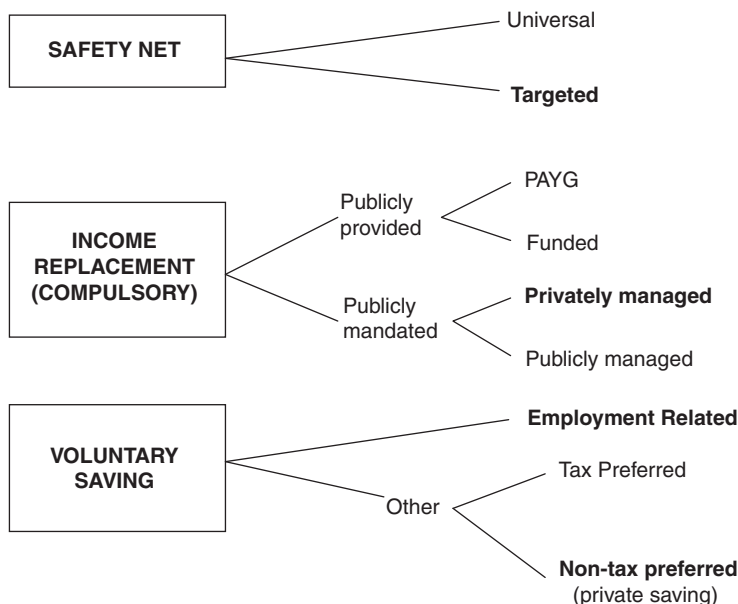


Figure 6.1 Components of retirement income provision. *Source:* Authors' derivations from Bateman et al. (2001).

Retirement accumulations will increase and individual reliance on the Age Pension will continue to fall over time as more retirees leave the workforce with increasing more years of Superannuation coverage. Official projections indicate that, between 2009 and 2050, the proportion of retirees on the full Age Pension will fall from 42 to 28 percent (FaHCSIA 2008; Harmer 2009). With the aging of the population, government estimates suggest that the cost of the Age Pension will rise from 2.7 percent of GDP in 2009–10 to 3.9 percent of GDP over the same period (Australian Treasury 2010). This fiscal burden is quite modest by OECD standards, reflecting the relatively low level of unfunded benefit payable, and the gradual encroachment of funded support into the means-tested areas of the Age Pension.

### The market for retirement income products

Pension payout structures from mandatory funded accumulations can take many forms. In Australia, in the absence of mandatory annuities, retirement benefits can be taken as one or a combination of a lump sum or a retirement income stream.<sup>11</sup> Retirement income streams currently available include term and lifetime immediate annuities, and account-based



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pensions which are a form of phased withdrawal product. As well, hybrid products have been offered from time to time in response to regulatory incentives.<sup>12</sup> All retirement benefits are free of tax for persons aged 60 and above and are equally subject to the Age Pension income and assets tests.

### *Annuities*

Prior to the recent demise of the annuity market, a comprehensive menu of immediate annuities had been available in Australia. These included lifetime and fixed-term annuities offered on a nominal basis, or indexed, single, or joint, and with the options of a guarantee period, reversion, and/or a return of capital. In absolute terms, the market for annuities in general, and life annuities in particular, was never large, but it has fluctuated in response to policy change. In particular, the removal over 2006–7 of the differential treatment by benefit type under the Age Pension means tests and tax rules led to a severe deterioration of the Australian annuity market. Notably, deferred annuities and variable annuities are now both absent from Australia's retirement income product menu.

### *Phased withdrawal products*

Phased withdrawal products were first introduced in Australia in 1985 and they are now the most popular form of retirement benefit. They were previously provided as products called 'allocated pensions', and they are currently marketed as 'account-based pensions' and 'transition to retirement pensions'. Both products allow retirees to invest their retirement accumulations in an investment portfolio according to their risk preferences, and (subject to drawdown requirements) decide how much income they want to draw down annually.<sup>13</sup> Retirement benefits paid from an account-based pension are tax-free for persons aged 60 and above, and, where minimum age-based annual drawdowns are satisfied (as in Table 6.1), the earnings on the underlying assets are also free of tax.

Transition to retirement pensions was introduced in 2005 with the aim of encouraging partial rather than full withdrawal from the labor force. These benefits are available to pre-retirees with a preservation age between 55 and 60 (i.e., those born on or after July 1, 1960) and must be taken as an income stream subject to a maximum annual drawdown of 10 percent of assets.

### *Hybrid products*

Hybrid products have also arisen from time to time, largely in response to tax-transfer incentives. These include 'life expectancy' term annuities, which received regulatory sanction in 1998, where the term of annuity

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TABLE 6.1 Account-based pensions in Australia: minimum drawdowns by age

Age (year)	Percent of account balance
<65	4
65–74	5
75–79	6
80–84	7
85–89	9
90–94	11
95+	14

Source: Supervision (2007).

was required to be at least the life expectancy of the beneficiary, and ‘term allocated pensions’ or TAPs. TAPs, also known as market-linked income streams, were a form of variable annuity introduced in 2004 in response to changes in the tax, Age Pension means test, and regulatory requirements. They had a similar account structure to a phased withdrawal (then known as an allocated pension), but a similar term structure to a life expectancy term annuity (these are no longer marketed following reforms in 2007 which eliminated tax-transfer preference by benefit type).

### *Current retirement income product coverage*

The take-up of the retirement income products available in Australia is summarized in Tables 6.2 and 6.3. Table 6.2 reports aggregate coverage by type of retirement benefit, while Table 6.3 provides disaggregation by sex and age. From Table 6.2, it is clear that Australian retirees prefer non-annuitized retirement benefits. In 2009, lump sums accounted for 48 percent of benefits paid, and account-based pensions (including transition to retirement pensions) just slightly more at around 95 percent of the remaining 52 percent (or 49 percent) of benefits paid. Term annuities accounted for just 5 percent of total income streams purchased (by assets), while the take-up of life annuities was negligible with only seventeen policies sold in the first nine months of 2009. Longer term trends are discussed later.

Table 6.3 provides a disaggregated picture of retirement income product coverage by sex and age. The columns in the left panel give estimates for all people aged 55+; while the second and third panels increase the catchment

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TABLE 6.2 Private retirement benefits in Australia (2009)

Benefit type	Coverage
Lump sum	48% of benefits paid
Income stream	52% of benefits paid
Private market for income stream products	
Life annuity	Negligible: 17 policies sold in the first nine months of 2009 (61 policies sold in 2008)
Term annuity	5% of market for income stream products
Account-based pension <sup>a</sup>	95% of market for income stream products
Superannuation pension <sup>b</sup>	NA

<sup>a</sup> Includes transition to retirement pensions.

<sup>b</sup> A superannuation pension is a lifetime pension provided from some defined benefits superannuation funds. There is no publicly available information on the share of superannuation pensions.

Source: Authors' calculations based on Plan for Life Research (2010) and APRA (2010).

age to 60 and 65. These are important age brackets because of the varying access ages operating in Australian retirement policy.

Nearly a quarter of Australia's population is aged 55+; nearly 20 percent is 60+; and 15 percent is 65+. Yet, only about half the 65+ group thinks of itself as 'retired'. Relatively few continue to work; most of the rest see themselves in caregiving roles, or they do not regard themselves as having had serious labor force attachment throughout their lives. At the risk of some oversimplification, Age Pension support is assumed to begin at age 65, and about 75 percent of this group receives at least some Age Pension.<sup>14</sup> For earlier age groups represented in Table 6.3, the major source of transfer payment is the Disability Support Pension. This is increasingly used as a means of accessing public support in the years immediately before reaching Age Pension eligibility. More than half of Age Pension recipients move to the Age Pension from some other support program.

The lower part of Table 6.3 provides data on private retirement income recipients, drawn from income tax data. These are available from age 55 onward (for persons born before July 1960). At age 60 and above, about 32 percent of retirees enjoy these benefits, but as a proportion of population, coverage is low. Only 17 percent of males aged 60+ have private pensions and annuities, and only 15 percent of the age 65+ population enjoys such access. However, many recipients of annuities and private pensions will also receive some Age Pension. This is an intentional feature of retirement income policy design.

TABLE 6.3 Retirement income product coverage by sex and age in Australia (2006)

	Age 55 and over			Age 60 and over			Age 65 and over		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Population 2006	2,344,746	2,608,749	4,953,495	1,709,103	1,972,898	3,682,001	1,212,927	1,479,732	2,692,659
Retired population <sup>a</sup>	846,200	843,600	1,689,800	804,000	797,900	1,601,900	702,500	693,100	1,395,600
Public benefits									
Age Pension <sup>bc</sup>	NA	NA	NA	NA	NA	NA	64.2	77.3	71.4
Disability Support Pension <sup>b</sup>	7.5	4.5	5.9	6.0	2.6	4.1	0.5	0.1	0.3
Private benefits <sup>d</sup>									
Retirement income streams <sup>b</sup>	14.3	9.2	11.7	17.3	10.9	13.9	19.4	11.2	14.9

<sup>a</sup> For year 2007 only.

<sup>b</sup> Recipients as a percentage of population.

<sup>c</sup> Assuming the same proportion as 2004 data.

<sup>d</sup> Australian pensions or annuities in 2005–6. People with an annuity/pension offset are largely private sector recipients; those with no offset are mostly public servants due to the tax arrangements of many public sector retirement benefits.

Source: ABS (2009), FaHCSIA (2008), Australian Treasury (2006, 2010).

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### **Policy changes and patterns of demand and supply of retirement income products**

Economists since Yaari (1965) have argued that a consumer with no bequest motive should completely annuitize all wealth, yet annuities remain very unpopular. Many explanations have been advanced for this puzzle, including information asymmetry, crowding out, bequest motives, lack of reinsurance opportunities, prudential capital requirements, or behavioral reasons (Brown 2007; Agnew et al. 2008; Brown et al. 2008). Furthermore, supply-side constraints such as a lack of products to hedge the long-term liabilities and uncertainty surrounding mortality risk have made providers reluctant to promote life annuities as a retirement benefit option (Purcal 2006).

In Australia, it is clear that demand for retirement income products has been closely related to policy specification: taxation provisions, Age Pension means-test rules (transfer provisions), and prudential supervision decisions have all combined to generate the specific conditions to be met by each product. And these have changed quite significantly over the past twenty-five years. The evolution of these taxation, transfer, and regulatory requirements is summarized in Table 6.4.

Throughout the 1980s, in conjunction with the introduction of mandatory DC arrangements, tax-transfer reforms were introduced to encourage lifetime annuities. Measures included tax exemption for income on underlying assets; offering a 15 percent tax rebate, which, when compared with the 15 percent tax then imposed on lump sums, gave a 30 percent advantage to life annuity purchase;<sup>15</sup> and a doubling of the retirement accumulation eligible for tax concessions (known in Australia as the Reasonable Benefit Limit) as compared with lump sums. Life annuities were later afforded concessional treatment under the Age Pension income and assets tests. However, almost as soon as they were introduced, these tax-transfer incentives were progressively extended to non-longevity insured products, including phased withdrawals (i.e., allocated pensions) from 1994, life expectancy term annuities from 1998, TAPs in 2004, and transition to retirement pensions in 2005. The ‘Simpler Super’ reforms of 2006–7 resulted in the removal of all tax-transfer preference by benefit type.

Figures 6.2 and 6.3 summarize trends in the take-up of retirement income products purchased over this period. Figure 6.2 focuses on the split between lump sums and retirement income streams, while Figure 6.3 reports on trends in the market for income stream products, specifically life annuities, term annuities, account-based pensions, and TAPs.

Four trends are evident. First, the figures make clear the recent switch in preference from lump sums to retirement income streams. Second, they indicate a sharp increase in the demand for phased withdrawal-type

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TABLE 6.4 Evolution of the tax-transfer treatment of retirement benefits

Period	Taxation of retirement benefits	Age Pension means test treatment of retirement benefits	Product menu
Pre-1983	Tax concessions for lump sums (5% lump sum amount taxed at personal tax rates). Full taxation of retirement income streams at personal tax rates.	Income and assets from superannuation benefits subject to full income and assets tests.	
1983	Specific lump sum taxes introduced (15/30).		First incentives for life annuities
1984	Exemption from tax on income of underlying assets of immediate annuities.		
1988	Significant changes to the taxation of superannuation: <ul style="list-style-type: none"> <li>• Reduction in lump sum taxes (0/15).</li> <li>• 15% annuity rebate for immediate annuities.</li> <li>• Return of capital excluded from taxable income for immediate annuities.</li> <li>• Introduction of Reasonable Benefit Limits (RBL), with greater RBL for life annuities.</li> </ul>		
1990		Concessions introduced for lifetime annuities. <ul style="list-style-type: none"> <li>• Full exemption from assets test.</li> <li>• Return of capital excluded from income assessed for income test.</li> </ul>	
1992			Allocated pension introduced (phased withdrawal with minimum and maximum drawdown requirements).
1994	15% annuity rebate for allocated pensions.		
1998		Age Pension means-test concessions for lifetime annuities extended to life expectancy annuities.	Concept of a life expectancy term annuity.

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2004		100% assets test exemption reduced to a 50% exemption and extended to the new term allocated pension (TAP).	Term allocated pension (TAP) – a market-linked income stream introduced.
2005			Transition to retirement pension.
2007	Exemption from tax on all retirement benefits for those aged 60 and above (both lump sums and income streams). <ul style="list-style-type: none"> <li>• Abolition of Reasonable Benefit Limits.</li> <li>• Abolition of 15% annuity rebate.</li> </ul>	Removal of assets test exemption for immediate annuities and TAPs. Full asset test applies to all retirement benefits.	Account-based pension (a revised allocated pension with a minimum drawdown requirement only). TAPs no longer sold.

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*Source:* Authors' calculations; see text.

products (allocated pensions, account-based pensions, and transition to retirement pensions). Third, the figures show the growth and then decline of the market for term annuities, and, finally, they illustrate the disappearance of the small but robust market for life annuities.

*Lump sums*

Figure 6.2 plots the value of retirement benefits taken from Superannuation funds each year from 1997 as either lump sums or income streams. Traditionally, Australian retirees had a preference for non-annuitized benefits and particularly lump sums: in 1997, income streams accounted for only around 20 percent of retirement benefits taken (by assets). This began to change with the introduction of phased withdrawal products, initially in the form of allocated pensions, and later as 'transition to retirement pensions' and 'account-based pensions'. By 2009, for the first time, income streams dominated lump sums and these income streams are mostly account-based pensions.

*Phased withdrawal products*

Trends in the demand for account-based pensions (and allocated pensions) are also reported in Figure 6.3. A small spike in sales is evident in 1994 with the extension of the 15 percent annuity rebate to allocated pensions, and a small dip prior to 2004 as retirees switched to term annuities in anticipation of reduced Age Pension means-test preferences

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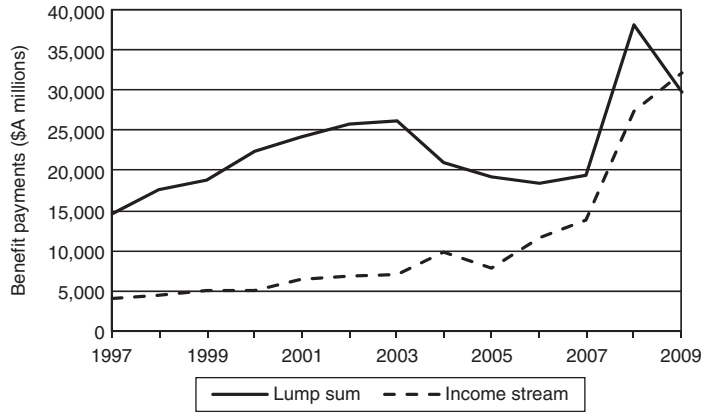


Figure 6.2 Value of retirement benefits: lump sum and income stream (1997–2008).  
 Source: Authors' computations from APRA (2007, 2010).

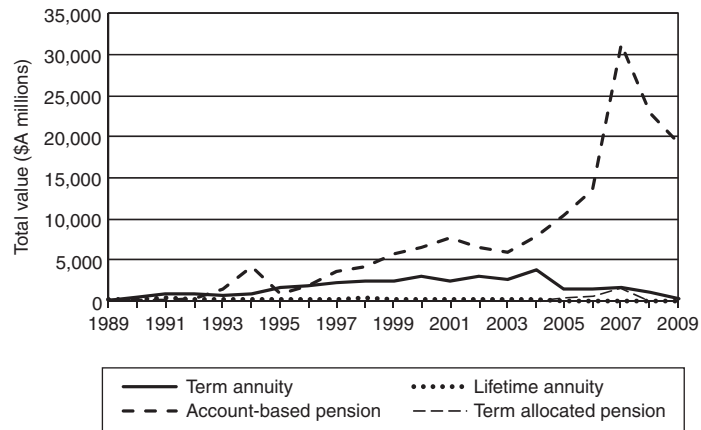


Figure 6.3 Value of private retirement income streams (1989–2008). *Note:* Account-based pensions include transition to retirement pensions. Account-based pensions were previously known as allocated pensions. *Source:* Authors' representations of data from Plan for Life Research (2010).

for these products from September 2004. But, the market for phased withdrawal alternatives expanded rapidly from the mid-2000s. This can almost certainly be attributed to the introduction of the Transition to Retirement legislation of 2005 and the Simpler Super reforms of 2006–7.



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The transition to retirement pensions allowed individuals to simultaneously contribute to a superannuation fund, continue to work, and draw down benefits taken as an income stream. This allowed additional contributions to be made from before-tax income (taxed at 15 percent in the hands of the fund), and simultaneous tax-free withdrawals. The tax arbitrage advantages were obvious. Industry estimates indicate that about \$A10 billion of the allocated pension market in 2007 can be attributed to this policy mix (Plan for Life Research 2008). The Simpler Super reforms, announced in the May 2006 Budget and implemented in 2006 and 2007, abolished taxes on all retirement benefits taken after age 60, simplified the Age Pension means tests by removing differences by benefit type, and exempted tax on the underlying assets of retirement income streams which satisfied minimum age-based drawdown requirements. As a result, there are now incentives to keep retirement assets in the superannuation system as a retirement income benefit, rather than take it out of the superannuation system as a lump sum. In Australia, this has translated into a rapid increase in the demand for account-based pensions.

### *Annuities*

Prior to the introduction of mandatory accumulations, life annuities were not offered as a marketed product. Yet, in response to tax incentives, a small market for life annuities emerged in the 1980s; this grew slowly in the 1990s in line with advantageous tax arrangements. It reached its peak after the introduction of Age Pension means-test incentives in 1998, in the form of full asset test exemption and income test concessions. Life annuities enjoyed a small niche in the retirement product marketplace until 2004, when their exemption under the asset test was cut to 50 percent. Tax concessions remained and supported a very small number of sales. Later in the decade, after the removal of benefits taxation to retirees over the age of 60 in 2007, all incentives for life annuities ceased (other than for those retiring before age 60). Between 2007 and 2008, the market declined by 90 percent in value, and by two-thirds in terms of number of sales. In the first three quarters of 2009, only seventeen life annuities were sold.

A similar pattern is seen for term annuities, with a gradual increase in demand in line with the gradual extension of the incentives for life annuity purchase to long-term annuities. This was followed by a contraction in demand from 2004 with changes to the asset test and some decline after the withdrawal of the tax-transfer concessions in 2007. The middle part of the decade saw a small upsurge due to the introduction of the 'hybrid' TAP, but changes to means-test rules in 2007 effectively shut this market down.

TABLE 6.5 Patterns of annuity purchase in Australia (2001–9)

Year	Term certain			Term certain with RCV			Lifetime annuities		
	Number	Total value (\$A million)	Average value (\$A)	Number	Total value (\$A million)	Average value (\$A)	Number	Total value (\$A million)	Average value (\$A)
2001	11,072	794	71,677	19,725	1,633	82,799	1,927	166	86,227
2002	15,004	1,096	73,065	20,326	1,896	93,296	1,750	155	88,349
2003	18,606	1,356	72,893	12,530	1,352	107,925	1,477	200	135,674
2004	37,296	2,758	73,951	9,159	1,069	116,731	2,801	280	99,886
2005	7,233	548	75,746	7,664	876	114,307	293	27	93,072
2006	6,566	531	80,810	7,187	946	131,588	341	30	88,446
2007	7,355	790	107,353	6,010	876	145,749	403	37	92,184
2008	999	111	110,951	5,496	1,006	182,997	61	12	195,082
2009	475	51	107,158	2,536	466	183,797	17	4	212,353

Notes: Data for 2009 cover the year to the end of September only.

Source: Authors' calculations based on Plan for Life Research (2010).

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Table 6.5 provides a more detailed breakdown of trends and patterns in the annuity market. Purchase over this period was largely accounted for by term annuities, which may be specified to pay back a percentage of the original capital on expiry of the contract, that is, with residual capital value (RCV). Many of the short-term annuities specify an income of interest only, and 100 percent return of capital at the end of the contract, while many of the longer term annuities specify an income comprising both interest and capital. Over the 2001–9 period, short-term annuities were the most popular form of immediate annuity purchased in Australia, relative to genuine longevity and long-term annuities (life and life expectancy products).<sup>16</sup> As illustrated in Table 6.5, of 32,722 immediate annuity policies sold in 2001 (worth \$A2.59 billion), only 1,927 were life annuities and 11,702 were term annuities with no RCV. This corresponds to purchase by only 2 percent of Australians retiring that year. By 2008, only 6,556 immediate annuity policies were sold (worth \$A1.13 billion) comprising only 999 term annuities with no RCV and 61 life annuities.

### *Coverage of retirement risks*

From an economic standpoint, what is striking about retirement benefits in Australia is not the response in demand for longevity-insured products to changes in policy incentives. Instead, it is that almost no privately chosen Superannuation benefits are longevity insured, no matter what the policy in place. The increasingly popular account-based pensions, while ensuring more provident use of accumulations than a lump sum payout, only offer limited self-insurance against outliving one's resources.

This limitation of phased withdrawals is well recognized, and some analysts (e.g., Walliser 2000) have argued against their use in national DC plans for this reason. Products missing from the Australian market include variable life annuities, hybrid longevity products such as ruin-contingent life annuities, and pooled annuity funds. The benefits of including products of this type on the retirement benefit product menu are clearly illustrated in Mitchell et al. (2006) which assesses retirement income products by coverage of retirement income risks.

Six possible designs for retirement benefit products are assessed as to their degree of coverage of longevity, investment, and inflation risk in retirement. The first three are products currently available in Australia. It is clear that the most popular product – the account-based pension – provides the least coverage against the main risks faced in retirement, while the least popular product – the indexed life annuity – provides the best coverage. Variable life annuities, hybrid longevity products, and pooled annuity funds do not have a presence in the Australian market, yet all three provide better coverage of the key retirement risks than account-based pensions.

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### *Pooled annuity funds*

We analyze first the pooled annuity funds or Group Self Annuitization (GSA) products. These provide idiosyncratic risk pooling but leave systematic longevity risk with the annuitizing cohort, or bands of cohorts. Because systematic longevity risk is not covered, organizations other than insurance companies may offer these products. They therefore have potential value in a structure such as Australia's, where large accumulations sit in the individual accounts of those approaching retirement within Superannuation funds – accumulations which the pension funds will lose to other insurance-based organizations, absent some form of retirement product offering. While bilateral negotiation with insurance companies for more formal longevity risk management products is possible and likely, offering this kind of longevity insurance unilaterally has considerable appeal, without the overhead and capital requirements faced by a licensed insurer. Pooled annuity funds provide high coverage against longevity risk and investment risk, and medium coverage against inflation risk.

### *Variable life annuity*

The appeal of a variable life annuity is that it provides retirees discretion over asset allocation and therefore does not require the annuitant to alter his portfolio from whatever it was before retirement – property, equities, bonds – to a portfolio of fixed income assets upon retirement. There is nothing in life cycle theory to suggest that such an abrupt change in asset allocation is optimal, or even sensible, which could be one reason for the lack of appeal of life annuities. Current tax, transfer, and prudential regulations preclude the development of an Australian market for variable annuities (e.g., an annuity with variable payments is not considered an annuity for tax purposes). An exception was the TAP, a form of variable term annuity available in Australia from 2004 to 2007, but this product fell short of providing full longevity insurance.

The standard variable life annuity is likely to provide high coverage against longevity risk and medium coverage against inflation risk. Yet, while the variable annuity product allows access to the returns of a diversified portfolio, the standard product did not insure against a prolonged bear market. While payments may continue until death, they may become vanishingly small, in other words exposing retirees to investment risk.

### *Hybrid longevity products*

The most exciting recent product development is the evolution of variable annuities, which in the United States have been mainly investment vehicles,

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to embrace a minimum guarantee for life – characterized as hybrid longevity products. Essentially, these products operate as a special type of deferred annuity added to the standard variable annuity, which cuts in not at a prespecified date but in the event that a particular account has been exhausted, either because of market conditions or longevity. As developed by Huang et al. (2009), these ruin-contingency life annuities provide payment contingent on survival.<sup>17</sup>

In the Australian context, this may be thought of as an account-based pension coupled with a wealth-depletion-triggered deferred annuity. To make these worthwhile, the deferred annuity must operate with no surrender value, or RCV, should the holder die before they come into payment. The survivor bonus component is an important piece of the insurance payoff.<sup>18</sup> Such a product is more economical than a standard deferred annuity advocated elsewhere.<sup>19</sup> It may not be needed at all if the market remains strong throughout the life of the individual, and its pricing takes this into account.

While there has been product development along these lines in Australia, it has not been possible to offer an exact copy of the overseas products due to particular regulatory provisions in the Australian market. In late 2009, ING launched a product called ‘MoneyforLife’ which is essentially an account-based pension with guaranteed minimum lifetime payments. The product is designed to provide insurance against longevity risk and investment risk, and since it is ‘account-based’ rather than a life annuity, the full value of the product passes to the estate in the event of the product holder’s death.<sup>20</sup>

Similar products are under development by other financial service providers, but all have been constrained by legislative provisions relating to the taxation, Age Pension means tests, prudential regulation, and capital adequacy, which require coordination with as many as five different government agencies. Each of these agencies acts in what it sees as a responsible fashion in light of its own mandate, but the overall effect may well be to effectively ban an appealing longevity insurance product. What is needed is a coordinated approach to the regulations and policies impacting on retirement income products, so that greater longevity insurance is encouraged.

Further development of the limited Australian retirement income product market is also constrained by a number of additional barriers including the sparse availability of assets to hedge liabilities associated with life annuities, uncertainties surrounding mortality risk, distribution channels which have been dominated by financial service providers who can make more money selling investment products (even if these are inappropriate), and possibly behavioral biases which lead consumers to make suboptimal decisions (see Agnew et al. 2008; Brown et al. 2008).

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### **The way forward: market potential, product risk sharing, and public–private partnerships**

On the face of it, the picture painted here is a bleak one in terms of encouraging longevity insurance. Nevertheless, the Australian market is starting to develop new longevity insurance products which appear to have greater consumer appeal, and which have been selling well in the United States. There is also potential for improvement in policy settings and practice which would significantly expand the longevity insurance market in Australia, although significant reform would be required to achieve this. Properly executed, these may well obviate the need for compulsory annuitization, a course which other nations have considered.

Yet, there are several prerequisites. First, the current policy process with regard to privately offered longevity insurance products must be better coordinated. Several public entities, including the Australian Taxation Office (ATO), the Australian Prudential Regulatory Authority (APRA), the Department of Family, Housing, Community Services and Indigenous Affairs (FaHCSIA), and the Australian Treasury, are influential in creating market opportunities for longevity insurance products. Yet none have the development of this market as among their primary policy goals. Neither is there any meaningful communication between them regarding assessment of proposed products. At the very least, a mechanism to contextualize and coordinate responses to market innovation is required, to provide private sector insurers with a firm basis for product development.

Second, much more sophisticated distribution channels are required for the promotion and sale of longevity insurance products. Most people approaching retirement at present seek the advice of a financial advisor, who in many cases may be naive about longevity risk, and who often is motivated by commission incentives built around investment-style products. A possible mechanism for breaking through this lies with the large Superannuation funds, which do have a relationship with their members. The not-for-profit funds especially, which account for a large proportion of the workforce, may have the capacity to harness their relationships to promote products embracing greater longevity insurance than is presently the case. Other policy suggestions such as limiting commission payments to financial planners may help with increasing net returns, but they seem unlikely on their own to address the retirement protection issue.

Additional policy initiatives may also be considered. Government could also enter the annuity market directly alongside private insurers, to ‘kick-start’ the market, as has been raised during consultations surrounding the 2007–8 Henry Review of the Australian taxation system. One proposal – the use of relatively small accumulations (because the SG is not yet mature, SG accumulations are frequently small) to ‘top up’ the Age Pension through a

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government agency – has considerable political appeal. More immediately, Government debt could be issued in forms which provide natural hedges against longevity (and interest and inflation) risk, essentially allowing insurers to partially immunize their annuity exposure. For example, the issue of long-duration, inflation-indexed bonds would offer an immediate hedge for CPI-indexed annuities.

### **Conclusion**

This chapter has reviewed the parlous state of the market for life annuities in Australia. Australians have traditionally favored non-annuitized retirement benefits, and the market for life annuities has never been large. But, following the withdrawal of tax-transfer incentives for life annuity purchase over 2006–7, the market has all but disappeared and the large increase in retirement benefit products is accounted for solely by phased withdrawal-type products (or account-based pensions in Australia). Fewer than twenty life annuities were sold in Australia in all of 2009. The increasing trend to take phased withdrawal products thus leaves Australian retirees exposed to longevity risk, and Australia as the only country relying predominantly on private mandatory DC accounts not to have incentives or mandates in place for longevity insurance.

Poor coordination between key government policy departments deserves part of the blame for the demise of the market for life annuities. But previous growth and a resurgence of the annuities market has been constrained by supply-side factors. These include the absence of assets to hedge the liabilities associated with life annuities, uncertainties surrounding mortality risks, and possibly the nature of the distribution channels which have been dominated by financial service providers who can make more money selling investment products.

In any event, there is cause for optimism, with some formative steps toward a revitalized market for longevity insurance products. The Australian wealth management industry is actively developing new longevity products of the ruin-contingent variety, while the government, in response to recent reviews of the superannuation industry (AFTS 2009), is looking at ways to both increase consumer demand and reduce supply-side constraints for life annuities. Options canvassed include the issue of long-duration inflation-indexed bonds, and collaboration between the public and private sectors in the offering of longevity products. With appropriate policy settings, better policy coordination, and private–public collaboration, it may be possible to resurrect Australia’s longevity insurance market without the need for compulsory annuitization.

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### Notes

- <sup>1</sup> Withdrawal at age 60 applies for persons born on or after July 1, 1964. The withdrawal age is 55 for persons born before July 1, 1960, and progressively increases from 55 to 60 for persons born between 1960 and 1964.
- <sup>2</sup> The regulatory environment refers to the tax and Age Pension means-test provisions and the prudential regulations.
- <sup>3</sup> The discussion of the Australian retirement income arrangements draws on Bateman et al. (2001) and Bateman (2010).
- <sup>4</sup> The pension supplement was introduced in 2008. It combines the previous pharmaceutical allowance, utilities allowance, GST supplement, and telephone allowance.
- <sup>5</sup> The Age Pension age for females is being gradually increased from age 60 to age 65 by 2014. Between 2017 and 2023, the Age Pension age will increase to 67 for both males and females (see Australian Government 2009).
- <sup>6</sup> Under the phase-in arrangements, the preservation age for those born before July 1, 1960 remains at 55, then it increases one year at a time, reaching age 60 for those born after June 30, 1964.
- <sup>7</sup> Employee contributions are not tax deductible but may be eligible for tax concessions or government co-contributions. Contributions by the self-employed are tax deductible and from July 2006 will be eligible for the government co-contribution.
- <sup>8</sup> This only applies where the Superannuation has been accumulated in a 'taxed' fund, which is the most common case. As well, earnings on assets underlying Superannuation income streams are untaxed where legislated minimum draw-downs apply. Benefits taken prior to age 60 remain subject to tax.
- <sup>9</sup> As a consequence of fiscal restraint during the recent global financial crisis, the Superannuation co-contribution matching rate was reduced from 150 to 100 percent for contributions made in 2009–12 and to 125 percent for contributions made for 2012–14.
- <sup>10</sup> The exchange rate as of 2010 was  $\$A1 = \$US1.133$  (Oanda 2010).
- <sup>11</sup> For example, term allocated pensions (known as TAPs) were a form of market-linked income stream offered between 2004 and 2007 in response to preferable tax and Age Pension means-test provisions. TAPs had a similar account structure to allocated pensions, but a term structure also to an annuity with a term equal to life expectancy.



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- <sup>12</sup> As well, some defined benefit pension plans offer superannuation pensions.
- <sup>13</sup> The previous allocated pension product had both a minimum and a maximum drawdown requirement.
- <sup>14</sup> Table 6.3 shows 71.4 percent. The difference is due to Service Pensions (which are equivalent to an Age Pension but paid to returned servicemen).
- <sup>15</sup> The treatment of the principal repayment component of life annuities purchased with tax-preferred accumulations nullified this advantage (Bateman et al. 1993).
- <sup>16</sup> Short-term annuities are an attractive and tax-preferred means of preserving superannuation accumulations between preservation age and actual retirement.
- <sup>17</sup> Related products are discussed in Kingston and Thorp (2005) and Horneff et al. (2010).
- <sup>18</sup> Huang et al. (2009) suggest that such a deferred annuity could be offered as a separate product, which they term a Ruin Contingent Life Annuity (RCLA).
- <sup>19</sup> For example, see Bateman et al. (2001).
- <sup>20</sup> For details on the ING 'MoneyforLife' product, see <http://www.ing.com.au/personal/retirement/ing-moneyforlife.aspx>

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