

Summary of Challenger Henry Submission

12 November 2009

Richard Howes, Chief Executive – Challenger Life
David Cox, Head of Government Relations



Introduction

Superannuation policy in Australia has two principal objectives:

1. Increasing retirement incomes significantly above the level that could be provided through the Age Pension; and
2. Limiting the increase in the cost of the Age Pension to future taxpayers as the population ages and the dependency rate increases.

In addition to expected lifestyle, there are 3 factors that have implications for the adequacy of retirement savings:

1. Longevity risk, the risk a retiree may outlive their savings. Average life expectancy of a retiree will be around 90 years by 2040, and half the retiree population will live an average of 9 years longer than that;
2. Market risk, historically negative market performance has occurred on average in one in three years, not just during GFC like events; and
3. Inflation risk, even within the RBA target of 2-3% pa inflation has a massive impact over a 30 year plus retirement.

Challenger's submission to the Henry Review shows how immediate and deferred indexed lifetime annuities can efficiently and effectively address these issues. Partial annuitisation of retirement benefits can provide:

- a reduction in poverty amongst the aged, Australia has the 4th highest rate of aged poverty amongst OECD countries
- an increase in total income over retirement
- a reduction in Age Pension costs to the taxpayer
- guaranteed income above the Aged Pension from retirement until death
- competitive returns undiluted by management fees
- transfer of all longevity, market and inflation risk to APRA regulated institutions
- increased likelihood for the retiree to maintain control of their non-superannuation assets for the purpose of making bequests

What is an annuity?

An investment that pays a guaranteed stream of income for a fixed period of time or the lifetime of the holder.

Annuities may be:

- Fixed Term - the amount will be paid out in regular instalments, at a fixed rate or CPI indexed. Fixed term annuities may be nil RCV (residual capital value) effectively returning a portion of capital with each payment or RCV with a known return of capital, which may be indexed, at term.
- Lifetime – pays an income stream for the lifetime of the holder. The contract may be a joint annuity paying the same income until both holders are deceased, or pay a lower residual benefit to a dependent on the death of the primary holder. Lifetime annuities may have a guarantee period providing a return of capital to the holder's estate if they die within a specified period after the annuity is purchased.
- Deferred – payments commence at a date specified at the time of purchase with the value of the annuity increasing during the deferral period to provide a higher rate. Both fixed and lifetime annuities may be deferred. Deferred lifetime annuity rates are high because they benefit both from investment returns and expected deaths in the deferral period.
- Variable - the income stream is based on a guaranteed number of units, unit values and payments depend on the underlying investments.

What benefits do annuities provide?

A lifetime annuity will provide a retiree with a guaranteed income for life. The life company accepts all longevity and market risk. If the annuity is indexed the life company also accepts the inflation risk.



This is in contrast to the allocated pensions bought by most Australian retirees which are not backed by the provider's capital and require the retiree to take all longevity, market and inflation risk.

Income paid to a retiree over 60 years of age from an annuity purchased with superannuation money is tax free. Annuities provide regular payments controlling the rate of drawing from savings over retirement.

Lifetime annuities eliminate the possibility of exhaustion of private retirement benefits so retirees are guaranteed an income in excess of the Age Pension over the full course of their retirement.

As a defensive component of an investment portfolio both lifetime and fixed term annuities exhibit no volatility. Retirees experienced no losses on annuities as a result of the GFC, and more generally annuities can be expected to outperform as the defensive component of an asset allocation.

Short term (1 to 5 year) 100% RCV annuities can be used to protect a retiree's capital during a period of market volatility. The retiree's capital can be kept in the superannuation system, retaining its tax preferred status and available to invest in more risky superannuation products when the period of volatility has passed.

How do annuities work?

Fixed term annuities are similar to bank term deposits and are priced off the yield curve. The life office shares with the investor the liquidity premium which is available from investing in long dated assets. Life companies must earn an economic rate of return on the regulatory capital they are required to hold to guarantee the performance of fixed term annuities.

Lifetime annuities also provide a vehicle for policy holders to share in both equity and liquidity premia that are available particularly from investing in long dated assets. The unique feature of lifetime annuities is that they allow retirees to share in the value created by the pooling of longevity risk.

Many people wrongly believe that if they were to die early the life company would keep their capital. In fact the capital of those who die early is part of the insurance pool and benefits those retirees who live well past life expectancy.

APRA requires life companies to carry regulatory capital to cover longevity risk. There is a common misconception that regulatory capital has such a high cost life companies are not able to offer competitive rates on longevity insurance. The time value of money means early deaths are of more value to the insurance pool than the cost of longer lives. This more than offsets the cost of the regulatory capital to cover longevity risk and results in life companies being able to offer a higher rate for a lifetime policy than for a fixed term annuity with a term equal to the policy holder's remaining life expectancy.

How safe is an annuity

Annuities take the form of a contract sold by a life insurance company. The contract represents a promise or guarantee by the life company to the annuitant and that guarantee is subject to prudential regulation by APRA. APRA sets capital standards to ensure the guarantees provided by life companies will be met. APRA continuously monitors the financial condition of a life company. APRA has powers to require recapitalisation or restructuring of any life company which it believes is at risk. This ensures the efficacy of APRA's prudential regulation and through it the performance of individual life policies.

The life company bears all of the market, longevity and inflation risk. Any requirement for additional capital is at the expense of its shareholders. The opposite is the case for allocated pensions, where the retiree bears all the market, longevity and inflation risk and none of this risk is taken by the responsible entity or the shareholders of its parent company.

Life companies in Australia are A or AA rated.



Benefits of mandatory annuitisation

Superannuation accumulation is mandatory with the SG requiring saving of the equivalent of 9% of a worker's wage. This has been highly effective in overcoming a large part of the population's reluctance or inability to make adequate provision for their retirement. However, Australia is an outlier in the developed world in allowing 100% of retirement benefits to be taken as a lump sum, and only prescribing minimum draw down rules for tax free status for private superannuation income. Substantial increases in welfare would be achieved by requiring retirees to take a portion of their superannuation benefits in the form of a lifetime annuity. This would not only provide protection against longevity, investment and inflation risk but will produce other substantial private and public finance outcomes:

1. It would provide a substantial increase in retirement incomes above the full Age Pension and sustain it over the full course of retirement, thus alleviating poverty amongst the aged. This is a major issue and not just for those with low starting balances. Unless a retiree has a high balance and chooses to live frugally an allocated pension can be expected to fail leaving most retirees totally dependent on the Age Pension.
2. Annuitisation of a proportion of retirement savings can be used to ensure an appropriate weighting of defensive assets in portfolio asset allocation. Ground breaking research by Watson Wyatt shows a lifetime annuity will out perform the defensive assets currently used in retirement incomes portfolio construction. This means partial compulsory annuitisation does not financially disadvantage retirees.
3. One of the advantages of compulsory annuitisation is that it removes adverse selection, creating a wider pool of risks and allowing life companies to offer higher rates on lifetime annuities.
4. Pooling of life risk through a life office is a more financially efficient way to provide longevity cover than to save the extra amount necessary to self insure. In most cases that would not be possible.
5. There are powerful public finance arguments for requiring retirees to make proper provision for their own longevity risk, where they are able. This is reinforced by the fact that superannuation benefits are not just deferred consumption but are in large part accumulated tax concessions. Generally tax concessions are provided for public policy purposes, which in this case are to increase retirement incomes and reduce intergenerational fiscal pressures. It is appropriate for government to ensure these tax concessions are used for the purposes for which they were provided.
6. It will limit the government's exposure to longevity, market and inflation risk through the means tested Age Pension, thus improving the sustainability of the government's retirement income arrangements;
7. With more Age Pensioners having guaranteed additional income over the full course of their retirement there will be less pressure for future increases in the base rate of the Age Pension;
8. Providing guaranteed private income late in life will reduce the call on the budget for means tested aged care. From the perspective of a retiree wishing to fund their aged care, annuities can do this without the need to make separate provision outside superannuation;
9. By reducing future budget pressures annuities can provide financial capacity for other age related costs such as health care or for targeted incentives to people on low incomes to increase their retirement savings.
10. Improving intergenerational financing goes not just to equity, but to the future competitiveness of both the taxation system and the economy more generally, as the dependency ratio rises over coming decades.

These are weighty enough issues to justify using an element of compulsion, in the superannuation benefits phase. Compulsion is a cost effective means of obtaining a much better set of retirement benefit payment outcomes, in terms of both risk and the quantum of retirement income. This is a logical extension of the compulsion which has been used over the last two decades to obtain better retirement saving outcomes which is the foundation for Australia's retirement incomes system.



Modelling by Access Economics indicates that compelling retirees to take 30% of their retirement benefits either as an immediate or deferred annuity would reduce the cost of the Age Pension by between 0 and 0.2 percent from a baseline cost of 3.9 percent of GDP per year. That is a reduction of up to 5% in total Age Pension costs.

This level of compulsory annuitisation would materially increase retirement incomes, replacement consumption and replacement income relative to the Westpac/ASFA modest but adequate benchmark.

Table 1: Impact of 30% Compulsory Annuitisation

2040-41 ratio to GDP	BASELINE	30% IMMEDIATE	30% DEFERRED
Cost to Budget of the Age Pension	3.9%	0.0%	-0.2%
Net Retirement Income	14.1%	0.3%	0.4%
Replacement Consumption	70.5%	4.1%	2.9%
Replacement Rate MBA#	171.1%	10.7%	7.4%

Modest But Adequate

Source: Access Economics

The potential budget savings from 30% mandatory annuitisation are sufficient to fund a 30% refundable rebate on all voluntary superannuation contributions to equitably replace the current tax concession of the difference between the taxpayer's marginal tax rate and the 15% contributions tax. Under this arrangement no voluntary superannuation saver would be worse off.

Australia an outlier in retirement incomes policy

In many countries, like Australia, the shift from defined benefit to defined contribution arrangements has been associated with a significant transfer of risk from pension providers to retirees. Australia is however an outlier in allowing 100% of superannuation benefits to be taken as a lump sum and only requiring minimum draw down rules for a superannuation income stream to be tax exempt.

Annuities remain a significant, indeed in some jurisdictions the principal, means of delivering retirement incomes with their capacity to be used to manage the rate of withdrawal as well as market, inflation and longevity risks.

In other countries retirees are able to choose between various types of pensions, annuities, and account based withdrawals that have features designed to, individually or in combination, address market, longevity and inflation risks. For example, some compulsory schemes in the Americas provide a choice between a pension for life or lifetime annuity and a programmed withdrawal (the equivalent of an allocated pension), but if the retiree selects a programmed withdrawal, they are required to also purchase a deferred annuity to provide longevity protection.

Behavioural inhibitors to voluntary annuitisation

There is a very significant and growing body of academic literature in the field of behavioural economics, pointing to a predisposition for irrational behaviour by retirees with respect to the decision to provide for their longevity risk. The evidence is sufficiently compelling to reject the contention that the problem could be solved with increased financial education alone, even if current structural impediments to annuity product development in Australian were removed.

By trading a stock of wealth for a life contingent income stream, healthy individuals are able to sustain a higher level of consumption than in the absence of annuities, and are assured this income cannot be outlived. In 1965 Yaari published a seminal piece of work focussing on expected utility, in which he found that certain consumers should fully annuitise. This work has been reinforced by Davidoff, Brown and Diamond in recent years testing the significance of various assumptions such as:

- The bequest motive;
- Completeness of markets; and
- Preferences for earlier over later consumption.



Their simulations showed it is “extremely difficult” to find situations where less than two thirds of retirement wealth should be invested in annuities, they concluded;

The near absence of voluntary annuitisation is puzzling in the face of theoretical result that suggest large benefits to annuitisation...These results suggest that lack of annuity demand may arise from behavioural considerations, and that some mandatory annuitisation may be welfare increasing.

In 2008 Brown, Kling, Mullainathan and Wrobel studied how retirees respond differently depending on whether the decision to annuitise is framed in an investment or consumption context. If the issue is framed in the risk return trade-off terms of an investment the retiree is less likely to annuitise than if the issue is framed in terms of the level of ongoing consumption they provide through retirement. In 2009 Brown, Kling, Mullainathan, Wiens and Wrobel extended this work and found that the framing language was more important than the purchase price.

In 2009 Adler published a paper confirming these findings in relation to framing and noted that retirees view an annuity as a risky gamble; “if I die early, I lose: if I live a long time, I win,” rather than insurance against the risk of outliving your wealth.

What is adverse selection?

Life companies price annuities based on an actuarial assessment of the pool of risks they are covering. Adverse selection occurs in a voluntary system because those who have good reason to believe they will exceed average life expectancy will be more likely to choose a lifetime annuity, so increasing the life expectancy of the annuitized pool and therefore reducing the annuity rates a life office can safely offer annuitants. Mandatory annuitisation removes adverse selection, allowing life companies to offer higher rates.

Chapter 7 of the AFTS Report on Strategic Issues said: *“In a mandatory scheme, people who die before or shortly after the age at which the annuity commences support the income of those who live longer. Consequently, there are potential equity issues, especially for groups in the community who tend to have lower life expectancies, such as low income earners and Indigenous Australians.”*

Challenger asked Watson Wyatt to provide information on relative mortality experience and indicative pricing using its propriety modelling based on socio-economic profiling by post code in the UK. Postcodes act as a proxy for a wide range of mortality risk factors and can support differentiation of annuity rates according to risk.

The difference between the indicative annuity pricing for post codes in the lowest and the highest socio-economic deciles in the UK indicated a 17.4% higher annual income in the case of a 65 year old male in the lowest socio-economic decile, on the assumption of continued mortality differentials between the different deciles at older ages.

These results demonstrate allowing competition in a mandatory annuitized market can provide materially higher annuity payments to less advantaged socio-economic groups.

Effect of regulation

In practice the form of annuities which will be available in a market is not necessarily determined by what is financially feasible, prudent, commercial, and beneficial for annuitants, but by legislation and regulation, which may impede product innovation, some examples are:

1. The pension rules explicitly contemplate an annuity being paid at a fixed rate, with a fixed rate of increase, a rate indexed by the CPI, or a rate adjusted according to an ABS index of wages growth, but do not contemplate adjustment by a market index.
2. Provision of deferred annuities is rendered uneconomic by the tax treatment of earnings and the pension rule prescribing minimum withdrawals during the deferral period, as well as the prudential standard which prescribes minimum surrender values.



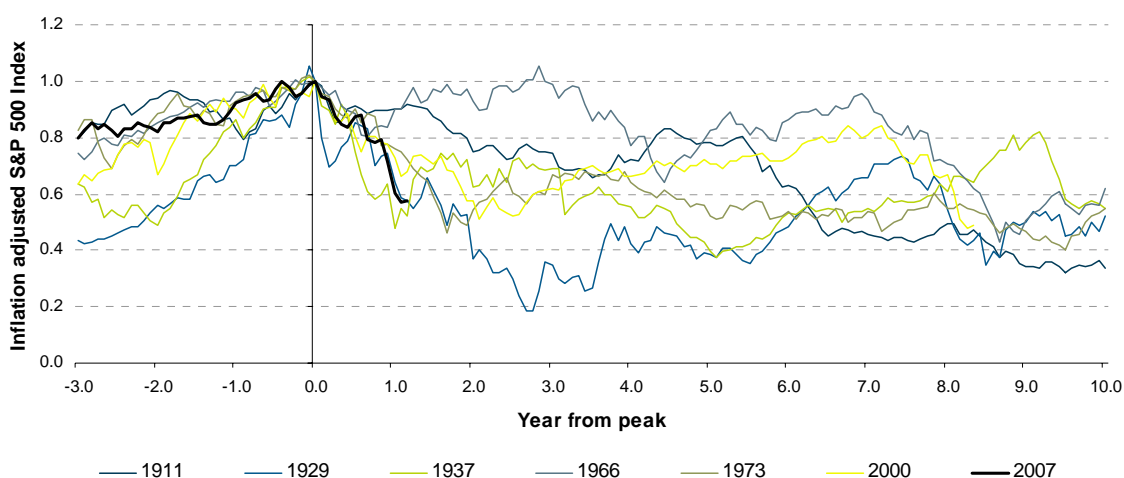
While capital standards influence the annuity rates a life company can economically offer, they ensure guarantees made will be met and are not so onerous as to render life products uncompetitive relative to comparable alternatives.

Market risk - was the Global Financial Crisis a one off event?

The Global Financial Crisis resulted in substantial reductions in the value of retirement savings. Many people assume these losses are the product of one-off freak event. However historical evidence shows there is a significant probability of one or more major adverse market events occurring during the period of any person's retirement.

Their true severity and frequency is often underestimated as the data is usually not considered in real terms. It wasn't just the Great Depression there have been at least 5 other occasions where 10 years after the market peak, prices remained broadly between 40 and 60% below their peak.

Chart 1: Comparison of inflation adjusted S&P 500 index cycles

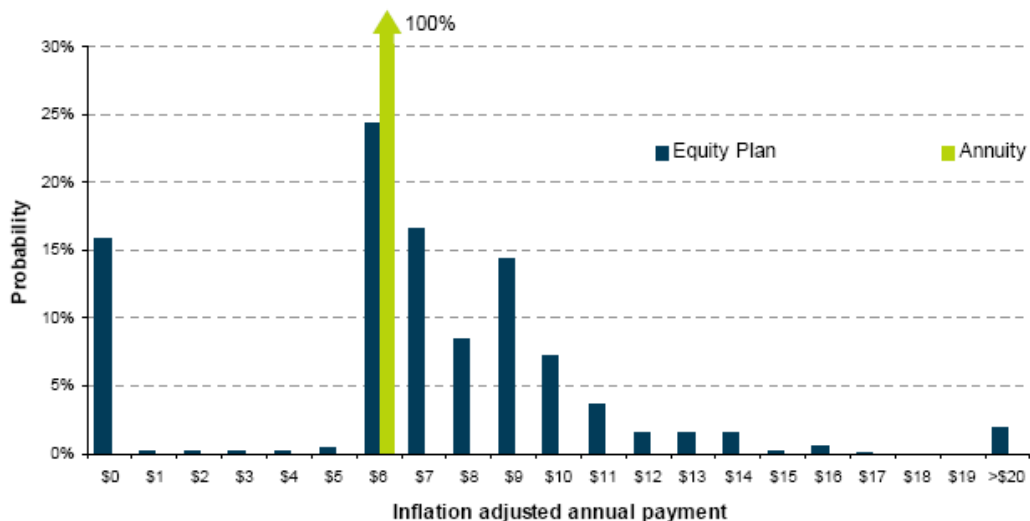


Extended periods of depressed markets are devastating for retirees. However, even single year negative returns, especially when encountered at the beginning of retirement, have a substantial impact on assets values, and with both income and capital continuing to be drawn down, severely reducing the prospect of recovery. This greatly increases the probability of a short fall in a superannuation fund's ability to deliver a set income stream over a target period.

Challenger used the 138 year Shiller data set to determine the distributions of annual payments from an equities based plan and to compare it with the performance of an inflation indexed annuity. The mean payment for the equity based plans is higher than the annuity but that higher average is driven by infrequent high returns. In contrast an annuity will provide a strong return 100% of the time.

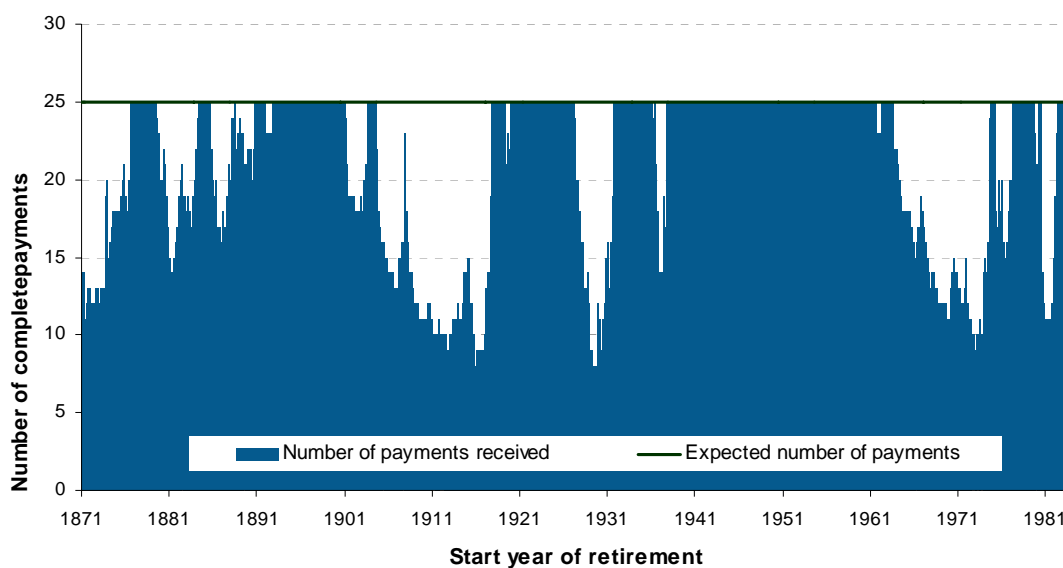


Chart 2: Distribution of Annual Payments: Equity Plan vs Annuity



Negative real year on year total returns occur with a probability of just under one third (32%). The average negative year on year real return is -13%. So a retiree could reasonably expect that in the year in which they begin their retirement, there is a one in three chance they will experience a -13% return. In this situation the initial capital loss would require consistently above average returns for the remaining 24 years to achieve the expected payments. In fact, if the first year investment return is -13%, then there is an 84% probability that the retiree will run out of money before the end of the 25 year plan.

Chart 3: Equity Plan Short Fall



48% of equity plans invested in over the 138 year period fell short of expectations. Even a holding period as long as 25 years is not long enough to ensure that the average risk premium is achieved. In fact it is nowhere near long enough for a retiree. The structure of a retirement income plan, where capital and interest are drawn rather than reinvested is such that when adverse market performance is experienced, the capital remaining in the investment is insufficient to fund the expected payments.

The analysis to this point demonstrates the poor performance of equities to fund a retirement income plan. This is a function of the structure of the plan; having regular withdrawal of capital and interest. The misconception is to assume that the risk premium achieved in a buy and hold equity investment of 25 years (without drawing capital and interest) can be replicated in a retirement income plan which regularly draws capital and interest.



Exhaustion of Allocated Pensions

A critical indicator of the performance of allocated pensions as retirement income streams is the average age at which they are likely to be exhausted. That age will depend on the amount invested in the allocated pension at retirement, the amount of retirement income taken, investment performance and the age at which the income stream is commenced.

An individual retiring at 65 years with a retirement savings balance of \$50,000 would be eligible for an Age Pension immediately. The allocated pension could then be used as a supplement and would provide a comfortable living standard (\$37,000 pa) until it was exhausted at 67 years of age. However, assuming a modest lifestyle (\$19,000 pa) 4 out of every 5 age 65 retirees could expect their savings to last their lifetime. But even at the modest level of retirement income, almost 1 out of every 5 age 65 retirees would be expected to exhaust their savings by 81 years of age.

Taking a comfortable income is likely to exhaust even a \$500,000 balance close to life expectancy. That indicates a \$500,000 balance provides inadequate self insurance against longevity risk (the likelihood of exceeding life expectancy) if the retiree wants a comfortable lifestyle over the full course of their retirement. An allocated pension with a starting balance of \$500,000 or \$300,000 could be expected to last for the retiree's lifetime but only if they are prepared to restrict them self to a modest standard of living. A modest standard of living isn't going to meet the life style expectations of most retirees with higher starting balances.

Table 2:

Average Age That Account Based Pension Fund Is Depleted

Starting Account Balance	Target Income	Age 60 Retiree		Age 65 Retiree	
		% of Simulations	Age	% of Simulations	Age
\$500,000	Modest	0%	n/a	0%	n/a
	Comfortable	100%	84	100%	89
\$300,000	Modest	0%	n/a	0%	n/a
	Comfortable	100%	71	100%	80
\$150,000	Modest	1%	72	0%	n/a
	Comfortable	100%	65	100%	71
\$50,000	Modest	100%	63	19%	81
	Comfortable	100%	62	100%	67

Source: Towers Perrin

Guaranteed and Non-Guaranteed Asset Allocations

Challenger commissioned Watson Wyatt to carry out a detailed investigation into the impact of using lifetime annuities as a replacement for bonds and cash as the defensive element of an individual's asset allocation. Watson Wyatt was also asked to develop risk measures to capture the variability of outcomes for retirees under differing market scenarios.

In previous work on allocated pensions WW used as a key metric the "probability of ruin" and measured the likelihood of this happening under various portfolio scenarios. For annuities WW introduced a new concept of "inadequacy",



being the event where retirement income, including the age pension, falls below a predetermined “adequate” level (the AFSA-Westpac modest income). The key metric, the “probability of inadequacy”, then measures the likelihood of income falling below this level prior to death. This measure was introduced since the possibility of ruin does not exist in a portfolio containing a lifetime annuity - the annuity, by design, does not “run out”.

The analysis also examined the remaining account based pension balance at each future age. This amount represents the bequest that the retiree would leave to their estate if they died at that age. WW permits a negative balance to emerge in the modelling which reflects the cumulative amount of income shortfall relative to the target income level. Viewed in the context of reverse mortgage products available in the market, a negative balance has a practical meaning as the amount that would be drawn under such a product to fund target consumption. The results for the core scenario are shown in the following table and the figures below.

Table 3: Core scenario results – impact of purchasing an annuity

Initial Balance (\$)	Target Income (\$)	Adequate Income (\$)	Strategy	Pr (Inadequacy)	Remaining account balance at age 90 (\$)		
					Worst	Median	Best
500,000	37,621	19,450	Non-annuity	42%	-167,867	18,682	348,781
500,000	37,621	19,450	Annuity	4%	-121,776	98,179	563,188

Assumptions: Asset Allocation: 70% Growth / 30% Defensive; High Fees.

These core results show that replacing the defensive component of an account based pension with a lifetime annuity on the terms modelled, materially lowers the probability of inadequacy. It also results in a larger remaining account balance at age 90.

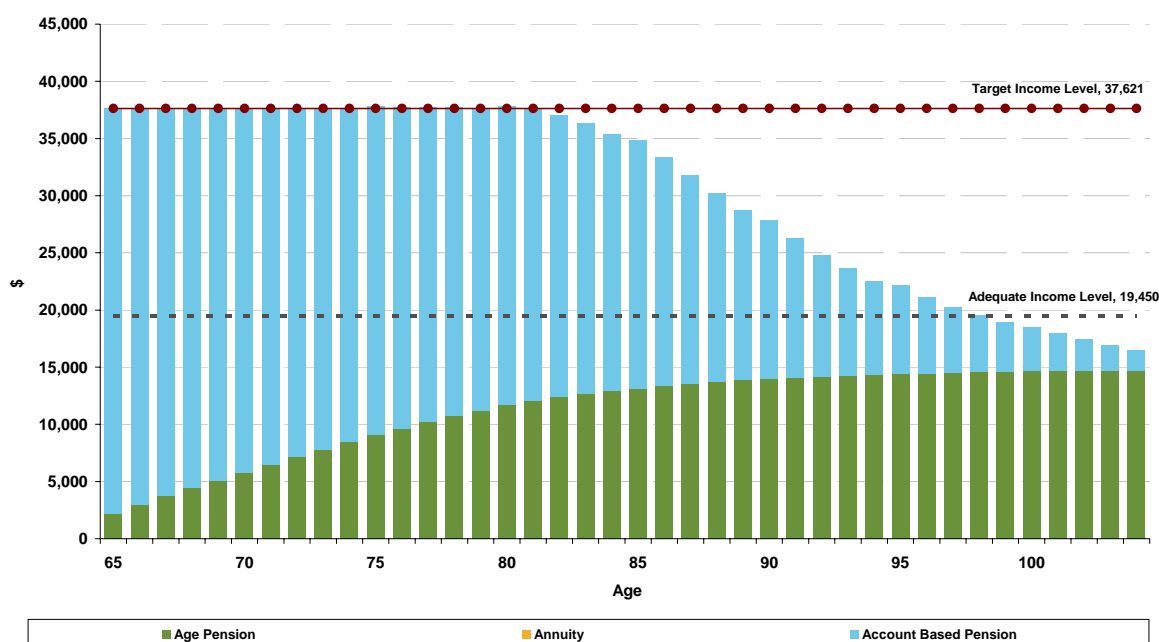
Target income is still expected to be maintained until at least age 81 under both strategies. Consequently, if the retiree does not expect to live beyond 81 (and ignoring any selective pricing that may be available from the annuity provider if there is a reasonable basis for this view) then the non-annuity strategy delivers a better result (at least in terms of the bequest for her estate).

However, beyond age 82, the annuity strategy performs better than the non-annuity strategy, with an expectation of higher account balances, target income maintained for a further 6 years, income maintained above the “adequate” level until after age 100 (a test not met by the non-annuity strategy), and a reduction in the amount of income sourced from the aged pension.

These results are driven by many factors but an important contributor is the higher returns generated by the annuity relative to the account based defensive option.

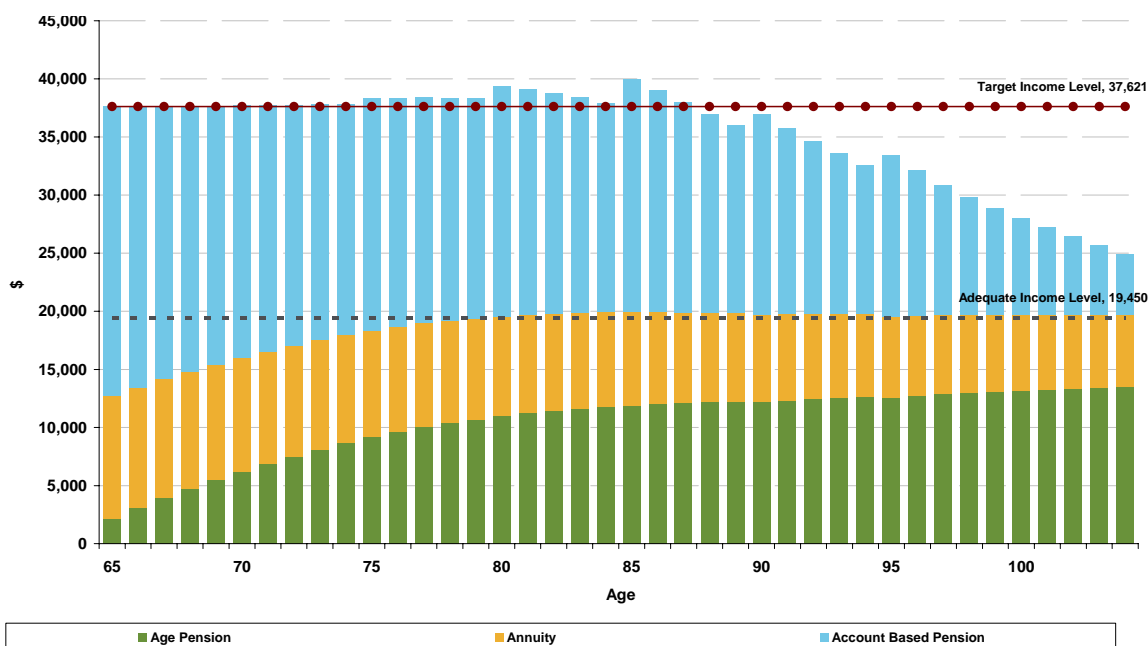


Chart 4: Average retirement income - No lifetime annuity purchased at retirement



Assumptions: \$500,000 Initial account balance; \$37,621 pa Target income; \$19,450 pa Adequate income; 70% Growth, 30% Defensive; High Fees
 Source: Watson Wyatt

Chart 5: Average retirement income - Lifetime annuity purchased at retirement



Assumptions: \$500,000 Initial account balance; \$37,621 pa Target income; \$19,450 pa Adequate income; 70% Growth, 30% Defensive; High Fees
 Source: Watson Wyatt

Conventional wisdom, at least that propagated by industry incumbents with a vested interest in the ongoing popularity of account based products, is that annuities are expensive. WW's investigation demonstrates that including lifetime annuities in retirement portfolios can be an effective strategy in addressing longevity risk and, more generally, can generate favourable risk and return outcomes. In Challenger's opinion, the results in the paper very



clearly support the argument that retirees will be better off under a system which incorporates compulsory annuitisation.

Superannuation, the bequest motive and access to capital

While retirees may have a preference to maintain control of their capital and ultimately bequeath it to their families, estate planning, and use of superannuation structures to defer tax are not objectives of retirement incomes policy.

High wealth individuals currently have the financial capacity to use superannuation to defer tax, for estate planning and to provide retirement incomes. People who are not high wealth individuals don't have that financial capacity. They will typically find that a combination of either or both adverse outcomes for market and longevity risk will result in them exhausting their private retirement savings and having to resort to using non-super assets, including reverse mortgages, to support their retirement consumption needs. If retirees don't make adequate provision for their longevity they are less likely to maintain control of their non-superannuation assets and be able to bequeath an estate to their dependents or families. Compulsory longevity cover would work for rather than against the bequest motive for most non-high wealth individuals.

The need for retirees to access a lump sum for capital items such as to replace washing machines, home repairs or for health care is often cited as a reason not to annuitise. Partial annuitisation removes this objection. In reality if a retiree has annuitised a sufficient portion of their superannuation benefit to cover most or all of their living expenses they are more likely to have funds available in an allocated pension to cover the cost of unexpected contingencies.

Indicative Pricing

The Commonwealth borrows, by definition, at rates given by the government bond curve. Current market rates (as at 31 August 2009) show swap yields are between 40 and 70 above the corresponding government bond yields. Annuity payments in all tables assume an initial premium of \$100,000.

Term certain fixed annuities

Table 4: Pricing of term certain annuities

Term	NIL RCV* Govt Bond Yield**	NIL RCV Swap- equivalent yield	NIL RCV Annuity yield	Annual Annuity Payment (\$100,000 policy)	
				Private provider	Government provided without subsidy
10 years	5.36	5.94	6.63	\$13,993	\$13,179
15 years	5.46	6.03	6.78	\$10,828	\$9,937
20 years	5.48	6.04	6.82	\$9,311	\$8,357
Life expectancy (60 male)	5.46	5.89	6.71	\$7,747	\$6,759
Life expectancy (65 male)	5.48	5.99	6.79	\$8,419	\$7,437
Life expectancy (60 female)	5.44	5.84	6.66	\$7,383	\$6,390
Life expectancy (65 female)	5.46	5.91	6.73	\$7,840	\$6,850

* RCV = Residual capital value.

** Derived using generally accepted market practice (zero-curve methodology) from the government bond yield curve

As can be seen from the table, the retail annuitant is currently able to earn approximately 130 basis points above the government bond yield. Were such annuities to be provided by the government, the annual payments would be lower than those provided privately since they should reflect the government borrowing cost which is 130 basis points below yields available in the private annuity market. That is unless either the rates are subsidized, or the government accepts the market risk in funding the annuities (which amounts to the same thing).



Term-certain annuities are also available as inflation-indexed annuities. In this case pricing reflects annuity yields approximately 100 basis points above the real government bond curve.

Lifetime annuities

Table 5: Pricing of lifetime annuities

Annuitant	Life expectancy	Annual Annuity Payment		First Annual Inflation-Indexed Annuity Payment	
		Private Sector Provision	Govt Provision without subsidy	Private Sector Provision	Govt Provision without subsidy
60 year old male	31 years	\$8,238	\$7,156	\$5,904	\$5,059
60 year old female	36 years	\$7,658	\$6,604	\$5,336	\$4,495
65 year old male	25 years	\$9,039	\$7,923	\$6,726	\$5,874
65 year old female	30 years	\$8,250	\$7,202	\$5,964	\$5,139

Deferred annuities

Life-time deferred annuity prices on a fixed and inflation-indexed basis are presented assuming taxation and other regulatory impediments are removed. Notably, annuity income would be taxed during the deferral period under the current rules.

Table 6: Pricing of deferred annuities

Annuitant*	Payment commencement date (Life expectancy*)	Annual Annuity Payment (\$100,000 Policy)		Inflation-Indexed Annuity Payment (2009 dollars, \$100,000 policy)	
		Private Sector Provision	Annuity Payments available from Govt without subsidy	Private Sector Provision	Annuity Payments available from Govt without subsidy
60 year old male	31 years	\$207,101	\$146,869	\$79,146	\$52,405
60 year old female	37 years	\$320,507	\$210,003	\$104,122	\$64,207
65 year old male	26 years	\$182,261	\$137,095	\$80,297	\$58,105
65 year old female	30 years	\$208,370	\$150,358	\$82,032	\$55,455

*Characteristics at time of purchase

Large payments are attainable with deferred lifetime annuities. This is driven by the joint impact of the time value of money and the chance of not being alive to collect the benefit. Clearly, even modest investments would provide a very meaningful top-up to the age pension.

Variable Annuities

The Guaranteed Minimum Income Benefit or GMIB is a variable annuity which is closest to being a true hybrid between an account-based pension and a traditional lifetime annuity.

The inclusion of a death benefit for estate planning and protected market risk comes at the cost of reduced income in retirement. Variable annuities provide the benefits of protected income and market upside but there is no free lunch – an appropriately structured GMIB variable annuity could reasonably expect to deliver a 20% lower guaranteed set of payments than a traditional lifetime annuity.



Table 7: Pricing of variable annuities

Annuitant	Life expectancy	Traditional lifetime annuity payment	Death benefit (no market risk)		GMIB variable annuity	
			Benefit fee*	Annual Payment	Benefit fee*	Annual Guaranteed Payment
60 year old male	30 years	\$8,238	40 bp	\$7,432	160 bp	\$6,535
60 year old female	36 years	\$7,658	30 bp	\$7,185	150 bp	\$6,204
65 year old male	24 years	\$9,039	70 bp	\$7,934	190 bp	\$7,106
65 year old female	29 years	\$8,250	50 bp	\$7,565	170 bp	\$6,669

* Deducted from account balance annually

Public or Private Provision

A number of proposals have been put forward in submissions for public provision of longevity cover. Some argue the government is in a better position to bear risk and has a lower cost of capital which can be used to offer higher annuity rates.

Cost of Capital

Challenger commissioned Access Economics to examine the implications of using the government's AAA rating and therefore low cost of capital to provide an advantage in pricing a publicly provided annuity. Access Economics concluded that the government could use its capacity to borrow at the risk free rate in the short term to benefit buyers of publicly provided annuities but that would not benefit Australians as a whole and the funding advantage would be eroded over time.

The central issue is that labelling borrowing as 'public' or 'private' does not change the inherent risk in a transaction, but only who bears that risk. The cost of the marginal transaction – paying upfront now for an income stream to follow – is the same regardless of whether done publicly or privately. Over time, public provision would either draw directly on the Budget or tend to dilute the cost of capital advantage to public sector borrowing as a whole.

“Such a transfer of costs is a key benefit for debt investors, who are only interested in recovering their money. It does, however, come at a price – lower living standards for taxpayers and collateral damage to the economy as higher taxes discourage investment and workforce participation.”

“The deterioration underway in the current and future creditworthiness of Australian Governments adds to the reasons to believe that there is no economy-wide ‘free lunch’ to be had in the Federal Government directly selling annuity products to Australians. The initial apparent ‘savings’ would disappear over time – public annuity provision is more likely to, for example, either add marginally to the overall cost of public sector borrowing and/or add marginally to the overall cost of commercial bank borrowing used to finance Australian home and business loans.”

“Given the direct and indirect costs of government borrowing, it is unclear that the public sector has or will continue to have a cost of capital advantage over the private sector.”

“Such a conclusion is supported by a number of papers which state that, in the absence of market imperfections, the cost of capital for public projects should be the same as the cost of capital for comparably risky private ventures.”

“These pressures will be most pronounced at precisely the time that a greater call on government resources would be needed to militate against longevity risk arising from an ageing population.”



Implications of Public Provision for Sovereign Credit Rating

Challenger commissioned Chris Dalton Consulting to evaluate the implications of public provision of annuities on the Commonwealth's sovereign rating. Its principal, Chris Dalton, was the Country Head of Standard & Poor's in Australia until 2007.

Dalton summarised the emphasis each of the rating agencies put on the fiscal implications of the ageing population:

"The impact of changing demographics on sovereign government's creditworthiness is widely acknowledged as the greatest challenge facing global public finance.

S&P has undertaken by far the most extensive analysis of the rising longevity risk and the impact of this megatrend on ratings over the longer term. In the years of 2004, 2005, 2006 and 2007, it published global graying reports which attempted to quantify the size of the challenge facing sovereign governments by the ageing population."

Under the 'no policy change' scenario, S&P has indicated that many highly rated sovereigns will be under pressure from early in the next decade.

Table 8: Hypothetical Ratings Outcomes under No Policy Change Scenario

	2007	2020	2030	2040
Australia	AAA	AA	A	Spec.
Canada	AAA	AAA	A	A
Japan	AA	Spec.	Spec.	Spec.
Sweden	AAA	AAA	A	Spec.
USA	AAA	A	Spec.	Spec.

Source: S&P Global Graying Report 2007

Dalton notes that this analysis is a timely reminder to sovereigns that they need to take action now to address the looming fiscal burden of an ageing population and that a:

"Continued demonstration of a commitment to ongoing principals of fiscal prudence including addressing the impending costs of aged-related services will be paramount to preserving the current rating. "

"While the fiscal burden is well into the future, policy measures to address it will have to be initiated in the near term. Failure to manage costs of an ageing population as a key factor that may cause a long term shift in budget balances to budget deficits and an increasing public debt burden might put downward pressure on the rating".

Dalton points out that the government's withdrawal from direct participation in various businesses has been viewed positively by ratings agencies:

"Over the last two decades rating agencies have increasingly factored in the bi-partisan approach by the two main Australian political parties of removing commercial business enterprise risks from the Government's balance sheet. Privatisation of the Commonwealth Bank, Qantas and Telstra has been a positive factor in the rating of Australia. Rating agencies have viewed favourably the policy of various Australian Governments to contain Government activity to traditional provision of services such as defence, healthcare, education and income and age support.

Government policies which introduce a greater degree of fiscal risk or introduce new risks to the balance sheet will weigh heavily in the determination of the rating. The fiscal conservatism of Australia's major political parties and the ongoing policies to remove commercial risk from the balance sheet of the government have been positive factors in Australia's credit rating."



Dalton makes it equally clear that the rating agencies would take a negative view of public provision of annuities:

“Introducing investment in annuity products as a key part of Australia’s retirement income policy would be considered as a positive response to the issue of adequacy of income in retirement. However, any consideration by the Commonwealth to directly create and provide annuity products would indicate to rating agencies a significant change in the philosophy of the role of government from that followed over the last two decades.

Rating analysts could be expected to view negatively any move by the Government sector to enter into a new financial services business providing annuity products to retirees. Rating analysts would consider the investment, administration and longevity risks the Commonwealth would take on to enter into the annuity market as contingent liabilities of government. This view would be held regardless of whether the annuity scheme was provided directly through a Government department or agency (eg. Centrelink) or via an investment fund such as the Future Fund.”

Dalton summarises the implications for Australia’s sovereign rating of public provision of annuities in the following terms:

“A policy of public provision of annuities to retirees, while addressing ageing and longevity, is likely to be viewed by rating agencies as failing to adequately safeguard public finances by imposing both large contingent and real risks to future fiscal policy. Rating agencies are looking for ‘AAA/Aaa’ rated countries to have policies that generate budget surpluses. Policies that weaken the fiscal position or potentially introduce structural budget deficits are likely to lead to rating views with downgrades to the Outlook of the sovereign rating or the rating itself.

A policy of public provision of annuities either for all retirees or those with small superannuation balances can be expected to be considered by rating agencies as a sub optimal use of the Government’s capital to maintain fiscal solvency.”

In contrast, Dalton notes that the private sector in Australia is much better placed in terms of experience, skills and infrastructure to provide annuity products:

“Australia’s insurance and investment markets comprise a competitive landscape of local and global insurance companies and financial services firms who could relatively easily mobilise to provide a choice of annuity products.

The proposal, to require Australian retirees to take a sizeable proportion (30%) of their retirement savings either as an immediate or deferred lifetime annuity, would be of positive significance to credit rating agencies in considering the policy settings of the Government to maintain a conservative fiscal strategy over the longer term.

The fact that Standard & Poor’s has assessed Australia, amongst a number of other developed economies, as being on a path that without retirement incomes policy change, will lead to a succession of downgrades to a Speculative rating is evidence of the need for substantial reform. That message was reflected by the IMF which in their 2009 Article IV Consultation on Australia Concluding Statement said;

“Looking further out, while some pension and health care reform has been included in the budget, remaining longer-term pressures from ageing and rising health care costs argue for more policy action.”