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# **Coping with the burden of longevity - do superannuation fund members really need or want new financial products?**

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## INTRODUCTION

Coping with the financial burden of longevity is a relatively recent phenomenon in terms of it being a general community concern. As well, as far as concerns go it is easier for most to cope with compared to the alternative, which is being deceased at a relatively early age. More specifically, in 1870 surviving childhood and early adulthood was a major challenge, with 42% of the population aged less than 15 years and only 2% aged 65 years and over. The proportion of people aged less than 15 years declined strongly in the 20th century, due to a sharp fall in infant mortality, control of infectious diseases and a general decrease in fertility rates, to reach about 20% by June 2004. On the other hand the proportion of people aged 65 and more has risen over all years to reach 13% by June 2004 (Productivity Commission, 2005). Much of the improvement in life expectancy has come from the fall in infant mortality, with at least one analyst claiming that a provider of life insurance would offer very similar rates for a healthy adult Roman in year AD 100 as they would now. This may say something about current life insurance rates, but it also would reflect that there were not many tobacco smokers amongst the ancient Romans and deaths due to chariot crashes were very moderate in number.

However, further increases in the number and proportion of the population aged 65 and over are in prospect, avian flu and other possible pandemics and general disasters permitting. This has a lot to do with the bust of the babyboom rather than any sharp escalation in the life expectancy of those well into their prime. According to the Productivity Commission, by the year 2045 there will be some 25% or so of the population aged 65 or more, with the percentage aged 85 or more up from 1.5% of the population to around 5%. In absolute numbers those aged 85 plus will increase from around 300,000 to 1.4 million (hopefully including me), with the number of centenarians increasing from 4,300 in 2003-04 to a projected 50,000 in 2045.

Life expectancy at birth is expected to increase from 78.4 years to 83.6 years for males and from 83.7 years to 87.4 years for females by 2045. However, given that those latter life expectancies will only come to their full fruition somewhere in the first half of the next century they are somewhat outside my forecasting or policy framework. I have some support for this position from as an authoritative source as John Maynard Keynes, who famously wrote "Long run is a misleading guide to current affairs. In the long run we are all dead". Keynes himself never had any worries about the financial consequences of longevity in that he died at age 62, predeceasing both his wife and his parents. I expect that having worked in both universities and the United Kingdom civil service he also had a pretty decent pension that he would have been entitled to if he had made it to retirement age.

More importantly from a contemporary policy point of view, currently life expectancy for the age cohort currently aged 60 is around 23 years for men and 26 years for women. Based on current life expectancies for those on the cusp of retirement, about 40% of the population will spend up to 25 years in retirement, around 40% will spend up to 35 years in retirement and around 10% will spend more than 35 years in retirement. Clearly a very significant minority of the population will be spending a very long time in retirement.

Certain gerontologists and other researchers, including some with medical qualifications, are optimistic that life expectancies generally will increase over the next few decades, including for those who are already in their prime, that is, aged over 50. They point to continuing and not always expected increases in life expectancy over the last few decades. However, whether that will continue to occur is essentially unknowable. There is also the possibility that life expectancy may decrease, at

least for some, due to an increase in the incidence of diseases of affluence (or at least of plentiful food supply) related to levels of obesity in the community.

So while it is possible that life expectancy for those born some time ago will increase in the future, it is equally possible that any improvements in life expectancy might be minimal as persons approach natural limits to the duration of life and/ or reap the consequences of past living practices.

## THE THEORY AND PRACTICE OF ANNUITIES AND RETIREMENT INCOME STREAMS

There is a rich and relatively long history in the economic literature of models of both simple and more complicated life-cycle savings models. Saving for retirement and the associated smoothing of consumption over the lifetime of an individual is something that is intuitively plausible and is indeed observed in practice. It is also something that is possible to describe in reasonably straightforward equations.

Some of these models suggest that it is optimal for individuals to annuitise all or part of savings at the time of retirement in order to guarantee smoothing of income and consumption over retirement.

Other analysts point to individuals making less than optimal savings decisions due to various market failures. Some researchers at the very free market/ libertarian end of the scale point to market failures brought about by governments providing for poverty alleviation and/ or retirement income provision more generally that is funded out of general taxation revenue. Such arrangements can be regarded as creating a moral hazard in that individuals know that they are guaranteed a minimum income from the state. On the other hand, it would be a very brutal society that abandoned the old who could not provide for themselves in retirement on the basis that such individuals neglected to make sufficient savings in their pre-retirement years.

There is also evidence of myopia in the attitudes of individuals in that without some form of compulsion they will make insufficient provision for retirement income. The compulsory superannuation system in Australia has received the overwhelming support of the Australian public despite traditional free market economics notions of compulsion leading to a net loss of consumer welfare.

Annuity markets have had their greatest role in societies where there have been limited or no forms of collective provision for the aged, or where governments have required them to be purchased. The first recorded life tables for computing the values of annuities date back to roughly AD 200 when they were published by the Roman jurist Ulpianus (Poterba, 2001). The tail of liabilities of annuity providers at that time was not generally that long in that the then calculated life expectancy for a male aged 65 was 5.3 years.

The modern annuity market in which private insurance companies sell insurance contracts to individuals who wish to avoid outliving their financial resources emerged in the eighteenth century. Governments also sold annuities in the eighteenth and nineteenth centuries, mostly as a fund raising exercise rather than as a measure designed to enhance the provision of retirement incomes.

There are many variants on the annuity theme, which is not surprising for something that is designed primarily by actuaries. However, single-premium immediate annuities are the most common products both sold and bought in assorted countries. In return for a lump sum payment to an annuity provider the purchaser (the annuitant) receives payouts contingent upon their survival or in accord with other terms in the contract. In some cases payouts are specified as a minimum, with a higher amount possible if the provider achieves higher than expected investment returns or the mortality experience is better than expected in that more people die relatively shortly after commencing their annuity.

The annuity payout rate varies with both the assessed mortality risk of the purchaser and the rate of return that the annuity provider can earn on the assets backing the annuity less relevant selling and administration costs. The payments end when the annuitant dies (a simple life annuity) or at the death of both the annuitant and the reversionary beneficiary (a joint life survivorship annuity). Pricing depends on both the age of the primary beneficiary and the age of the reversionary beneficiary. It is also possible to have term certain annuities in which payments end at the later of either a specified number of years or the death of purchaser.

These various annuities meet various needs. The simple life annuity deals with concerns of an individual about outliving their income, while the joint survivorship annuity addresses concerns such as how a spouse will survive financially after the death of their spouse. The term certain annuity addresses concerns about loss of capital to the purchaser's estate if the purchaser dies relatively soon after commencing the annuity. Simple life annuities have the highest payout rates in dollar terms in the first year of payment as the other options have further financial protections that in essence have to be paid for out of the ongoing income stream. The pattern over time of annuity payments will also depend on whether there is adjustment of future payments in line with movements in the Consumer Price Index or by a specified fixed percentage. Future escalation of payments invariably leads to lower payments at commencement for any given capital sum invested.

When setting annuity rates insurance companies need to take into account the fact that mortality rates for persons who buy annuities differ from the population generally. Not too surprisingly, poor and sick people with limited life expectancy are not very interested in purchasing a life annuity. This results in a form of adverse selection against the issuers of annuity products, with purchasers having significantly higher life expectancy than the population as a whole. To complicate matters even further, in most countries there are very limited numbers of life annuities sold, leading to poor and inadequate information being available on the life expectancy of local purchasers of annuities.

However, in the United Kingdom there is a reasonably large market for both voluntary and compulsory purchase of annuities, and the life expectancies for those groups in the United Kingdom are generally used as the starting point of actuarial calculations for setting the price of annuities in Australia. Actuaries also can factor in their own assumptions of future increases in life expectancy in the local jurisdiction.

Some analysts argue that requiring whole or part of a retirement benefit to be converted into an annuity would overcome this adverse selection and improve the amount of income offered by annuity providers for a given lump sum. However, the public policy basis for requiring those in poor health to subsidise those in good health is not entirely clear, and there are also other equity concerns. For instance, in NSW in the year 2000 the life expectancy of the lowest socio-economic quintile was 3.5 years lower for males and 2 years lower for females than the highest socio-economic quintile.

In the United Kingdom there is also a relatively small market in selling annuities for impaired lives. However, this involves some interesting underwriting practices, such as requiring purchasers to show that they are a heavy smoker with no intention of giving up.

## REGULATORY PROVISIONS RELATING TO RETIREMENT INCOME STREAMS, ANNUITIES AND LIFE PENSIONS

Attachment A sets out in broad terms the various regulatory provisions relating to retirement income streams of various sorts. The provisions relating to account based income streams allow considerable flexibility, some might argue too much flexibility, while the design of life pensions and annuities is strictly controlled.

While holders of account based income streams are allowed considerable flexibility in terms of the amount they can or have to drawdown each year and in the investments backing their income stream, this is not the case for non-account based income streams such as life pensions. The acceptable variation level for life pension payments is prescribed, thereby limiting both the ability of the account holder either to drawdown a lump sum or to hold back a payment. As well, providers in effect have to match their liabilities in regard to life pension payments by backing the products with long dated debt instruments. Reliance on equity investments, at least in the absence of very extensive reserves or provider use of risk capital which would impact on the financial attractiveness of the product from the viewpoints of both providers and customers, would make it very likely that payments would not comply with the requirement that they vary no more than plus or minus 5% from the previous year's payment.

Asset test arrangements for the receipt of the Age Pension also have a significant impact on the take up of various types of income stream. Until 20 September 2007 there is a 50% assets test exemption for qualifying non-commutable income streams taken out before that date. This includes what are known as Term Allocated Pensions which while non-commutable are account based income streams with special conditions applying to them. From 20 September onwards Term Allocated Pensions will no longer be able to be issued other than to change providers. Also from 20 September 2007 there will be a 50% taper rate over specified thresholds applying to the capital value of all income stream and other financial assets of retirees.

In the past the existence of full or partial exemption from the assets test for certain lifetime complying pensions and annuities added to the financial attractiveness of such products. The closing off of this concession from 20 September 2007 for any new income streams issued on or after that date has also led to increased sales of at least some such products prior to the deadline.

While the description "Simpler Superannuation" has been abandoned by the government in favour of "Better Superannuation" largely on the basis of focus group testing, it was a reasonable description of the new regime for retirement income stream products. Tax free for those aged 60 and over (at least from a taxed fund) is a pretty simple notion, and does not need much finessing by a fund. As well the abolition of any asset test exemption for specified types of income stream investment together with a relatively low minimum drawdown factor and no maximum limit (other than the account balance) means that there is not a great deal of scope for financial engineering to create an arguably unique product.

As a result providers have focussed on enhancement of ancillary or associated features, such as providing the ability to have a secondary account to take further contributions while drawing down a

pension benefit from a primary account, or through providing a link to ATM withdrawals and other forms of easy cash access for pension benefit payments.

## MARKET DATA ON THE SALE OF VARIOUS TYPES OF INCOME STREAM

The Investment and Financial Services Association (IFSA) regularly publishes data on funds under management and sales of new products for various types of income stream.

These data indicate that, at least in the retail sector, the great bulk of assets under management relate to account based income streams. Sales of lifetime annuities from both superannuation monies and other than superannuation monies have been near to negligible in the last 12 months, with total sales of \$29 million.

Term Allocated Pensions (TAPs) have been more popular, with sales of \$530 million in the 12 months and with a total of \$1.44 billion in total funds under management. However, TAPs are set to become a legacy product from 20 September 2007, with a number of providers exploring options as to how they can transfer this part of their business to other providers.

**Table1: Retirement incomes streams provided by retail superannuation funds and by insurance companies, March 2007**

Type of retirement income stream	Total funds under management, \$m	Sales in last 12 months, \$m	Average purchase price in last 3 months, \$	Number holding product(a)
<b>Allocated pensions and annuities</b>	66,176	13,926	120,000	550,000
<b>Term allocated pension</b>	1,441	530	112,900	12,700
<b>Lifetime annuities</b>	na	9	67,200	
<b>Total annuities</b>	4,447	547	108,300	41,000

(a) Calculated by ASFA Research Centre based on most recent average purchase price.

Source: IFSA Retirement Income Streams Report

Other data published by Rice Warner Actuaries suggest that there are fewer than 1,500 individuals with more than \$1 million in a post-retirement income stream product.

The figures in the table for funds under management and number of retirement income streams are more or less consistent with Australian Taxation Office data (ATO, 2007) which indicate that in 2004-05 (the latest year for which data are available) some 580,000 persons declared taxable income from a pension or annuity other than a Commonwealth pension, with aggregate income received of \$12.5 billion. This latter figure is also remarkably consistent with the APRA data on pension payments. This consistency is disturbing for those used to dealing with data on superannuation drawn from various sources.

Around 440,000 of these pensions involved individuals with annual taxable income of less than \$50,000 a year with 335,000 individuals receiving less than \$35,000 a year. To put these figures into context,

there were around 1.9 million recipients of the Age Pension, involving aggregate Commonwealth expenditures of just under \$20 billion in the same year.

The ATO figures also indicate that in 2004-05 336,600 individuals claimed deductions totalling \$2.6 billion for the undeducted purchase price of a pension or annuity, with around 368,000 (likely mostly the same people) claiming a total of \$806 million in tax offsets. Even before the most recent tax changes eliminating tax on benefits taken by those aged 60 and over from a superannuation fund, most retirees did not pay much tax on payments received from an allocated pension.

Clearly, allocated pensions and annuities (account based income streams in terms of the new regulatory jargon) are by far and away the most popular retirement income stream products. Sales of lifetime annuities have been completely underwhelming in recent years following the abolition of the 100% asset test exemption and they were not very large even prior to that. Basically, Australian consumers are not very interested in financial products which offer a low implicit investment return, have high fees and which have a nil capital value on the death of the primary or reversionary beneficiary unless some other sweetener is tossed in by government. This is not much of a sales spiel for a product, and sales would be a challenge for even that dying breed of individuals who sold life insurance to individuals based on tales of grieving widows and no-one ever complains about getting a cheque after the loved one has carked it. Even with the considerable sweeteners that applied in the past in the vast bulk of cases lifetime annuities formed only a part of an overall retirement income strategy.

Lifetime annuities have also fallen out of favour with Self Managed Superannuation Funds. There are a number of reasons for this. With the abolition of Reasonable Benefit Limits there is no longer a need for various strategies, sometimes rather contrived, to get around the limits. In addition, legislative changes have effectively removed this option going forward from small funds on the not unreasonable basis that you do not get much pooling of risk when only one or two lives are involved. A number of provisions of the Simpler Superannuation changes are also designed to cut down on the scope for estate planning strategies which aim to keep assets within the concessional superannuation taxation environment for multiple generations.

## THE REAL CHALLENGES IN COPING WITH THE FINANCIAL BURDENS OF LONGEVITY

It could be argued that the real challenges in coping with the financial burden of longevity are:

- Accumulating a reasonable level of retirement savings. If you have only \$100,000 or \$150,000 (or even less in the case of most current retirees) in savings in retirement there are much more pressing concerns than whether you have a one in ten chance you will live to 90 or 100 or whatever and run out of private savings some years before you die.
- Achieving a reasonable (or even good) net investment return (after fees) during the retirement income phase.
- Keeping the level of income and other taxes paid to a minimum during the retirement phase.
- Not spending too much each year in retirement.
- Obtaining sufficient pooling of the financial risks associated with longer than average life expectancy.

The next sections deal with each of these factors in turn.

## ACCUMULATING A REASONABLE LEVEL OF RETIREMENT SAVINGS

Comprehensive data on superannuation payouts is relatively scant, but data are available from the ABS Survey of Income and Housing for 2003-04. Table 2 provides average reported superannuation balances for various age groups.

**Table 2: Average Superannuation Balance, 2003-04, Persons aged 25-64 years**

Superannuation Group		Nil	Low	Middle	High	Overall
<b>Male</b>	<b>25-34</b>	\$0	\$12,480	\$58,540	\$137,228	\$15,823
	<b>35-44</b>	\$0	\$16,058	\$60,305	\$180,854	\$39,069
	<b>45-54</b>	\$0	\$17,130	\$63,503	\$250,670	\$78,183
	<b>55-59</b>	\$0	\$16,034	\$67,905	\$324,755	\$108,359
	<b>60-64</b>	\$0	\$16,484	\$67,541	\$337,754	<b>\$108,377</b>
	<b>All</b>	\$0	\$14,806	\$62,484	\$265,645	<b>\$56,405</b>
<b>Female</b>	<b>25-34</b>	\$0	\$10,464	\$59,124	\$166,573	\$11,751
	<b>35-44</b>	\$0	\$11,232	\$60,068	\$158,600	\$17,412
	<b>45-54</b>	\$0	\$12,942	\$62,492	\$203,277	\$31,851
	<b>55-59</b>	\$0	\$14,318	\$63,636	\$239,275	\$42,379
	<b>60-64</b>	\$0	\$15,914	\$73,015	\$236,086	<b>\$36,614</b>
	<b>All</b>	\$0	\$11,678	\$62,286	\$209,116	<b>\$23,889</b>
<b>Persons</b>	<b>25-34</b>	\$0	\$11,486	\$58,743	\$150,498	\$13,770
	<b>35-44</b>	\$0	\$13,458	\$60,229	\$175,616	\$28,136
	<b>45-54</b>	\$0	\$14,686	\$63,149	\$237,543	\$54,822
	<b>55-59</b>	\$0	\$15,106	\$65,958	\$299,046	\$75,221
	<b>60-64</b>	\$0	\$16,239	\$69,611	\$308,405	<b>\$73,150</b>
	<b>All</b>	\$0	\$13,155	\$62,414	\$249,710	<b>\$40,050</b>

Notes: Low balance is defined as less than \$40,000, High balance is over \$100,000 and (logically enough) Middle balance lies between High and Low.

It is possible that the figures in the table, which have been derived for ASFA by Simon Kelly of NATSEM from the ABS *Survey of Income and Housing* unit record file, underestimate superannuation balances as they are based on information from households with some individuals not aware at all of their current superannuation balance or underestimating their balance.

The figures in the table are averages and distributions for all persons in the various age groups. Medians are considerably below the average figures given that a significant proportion of each age group has nil or little superannuation. For instance, the median for all males is \$17,775 compared to an average (mean) of \$56,405.



The average balance for those aged 60 to 64 is a reasonable proxy for average retirement payouts given that most individuals retire at or around their early 60s.

With average retirement payouts in 2003-04 of the order of \$110,000 for men and only \$37,000 for women it is clear that most recent retirees will need to substantially rely on the Age Pension in their retirement. This is confirmed by other ABS figures indicating that around 70% of income units headed by a person aged 65 and over rely on the government pension as the principal source of income.

Average balances will rise in the future as the compulsory superannuation system matures. In addition, cohorts of women with more paid labour force experience than their mothers and grandmothers will move through the system. However, early retirement, retrenchment and withdrawal from the paid labour force for family and other reasons also will have an impact.

All that said, average retirement payments in 2006-07 are likely to have reached around \$130,000 for men and \$45,000 for women, a grand average of around \$90,000 for persons.

These averages involve numbers which are not very high, but even the averages can give a misleading impression given that the majority of people have balances below the averages. More specifically an examination of the distribution of superannuation balances indicates that in 2003-04 only 21% of those aged 60 to 64 had more than \$100,000 in superannuation with only 2.5% having more than \$500,000. The greatest immediate challenge is to increase the percentages of the population with more substantial superannuation balances.

At the other end of the scale, the rather rich with a million or two in retirement savings usually do not have much to worry about in regard to the financial consequences of longevity, often not even spending each year during their retirement the investment return on their nest egg. They do not really have a problem that needs to be fixed, and certainly not a problem that needs to be fixed by the purchase of a lifetime annuity.

It is really that in-between group with a substantial but not large amount of wealth that might need some sort of new (or even existing) financial product to deal with the financial consequences of longevity. For the other groups the existing types of income stream that are available might cope with most requirements.

## **ACHIEVING A REASONABLE INVESTMENT RETURN**

How much income you can draw down in retirement is inextricably linked to both the amount of retirement savings at the time of retirement, and the net investment return underlying the retirement income stream. Table 3 below sets out central estimates of future investment returns which have been published by the Australian Securities and Investments Commission (ASIC) based on advice from a variety of consulting actuaries.

While balanced and growth investment options will have higher year to year volatility in investment returns due to their reliance on equity investments, stability in the capital value of an investment comes at a significant cost.

**Table 3: Projections of investment earnings rates**

	Nominal	Real
<b>Growth</b>	8.5%	4.8%
<b>Balanced</b>	8.0%	4.3%
<b>Cap stable</b>	6.0%	2.4%
<b>Cap g'tee</b>	5.5%	1.9%

Source: ASIC website

The investment earnings rates in the table are on a before fees basis. For large lump sums in a balanced or growth option the fees may be as low as 0.6% while for annuity type products sold on an individual basis the annual fees might be of the order of 2% to 3% or even more. Insurance companies face the cost of insuring against expected longevity risk, the costs of insuring against maturity mismatch between the assets and liabilities related to a specific annuity, together with operational costs such as record keeping, marketing, distribution, fund management and benefit payment.

Given these figures it is not really surprising that when given a choice most individuals opt for the retirement income products with a higher net investment return.

Retirement income streams within the superannuation system also provide security against fraud, theft and certain other risks associated with the provision of investment products. Income streams making use of prudentially supervised investments do not generally run into the problems recently experienced by certain holders of high risk debentures and unsecured notes. As well, if fraud or theft occurs within the superannuation sector then appropriate compensation is provided to the members concerned.

#### KEEPING TAX PAID TO A MINIMUM IN RETIREMENT

Prior to 1 July 2007 most retirees paid little income tax on their retirement income and from 1 July 2007 amounts of income tax have generally become minimal. Table 3 and 4 provide further details for typical retirees based on ASFA Research Centre projections and calculations.

**Table 3: Lump sum retirement benefits after 30 years in a taxed fund for a person aged 60 or over(a)**

Tax treatment	Wage of \$30,000	Wage of \$50,000	Wage of \$100,000
Contributions and investment earnings taxed at current rates	\$110,000	\$183,000	\$366,000
After benefits tax on lump sum (the case before 1 July 2007)	\$110,000	\$174,214	\$327,018
<b>Improvement with no benefits tax (after 1 July 2007)</b>	<b>Nil</b>	<b>\$8,786 (5.0%)</b>	<b>\$38,982 (11.9%)</b>

(a) All figures in today's dollars (using 3.75% AWE as a deflator), investment earning rate of 7% assumed.

**Table 4: Pension benefits from an untaxed public sector superannuation scheme (such as a Comsuper pension) for person aged 60**

<b>Tax treatment</b>	<b>Annual Pension of \$10,000</b>	<b>Annual Pension of \$30,000</b>	<b>Annual Pension of \$50,000</b>
Tax payable at normal tax rates(a)	Nil (assuming total income is below tax threshold)	\$2,850	\$10,350
After 10%tax offset applying from 1 July 2007	Nil	Nil	\$5,350
<b>Improvement</b>	<b>Nil</b>	<b>\$2,850 (10.5%)</b>	<b>\$5,000 (13.5%)</b>

(a) Assumes there is no tax free amount due to pre-1983 employment and/ or return of capital.

Retirees who have accumulated savings within a taxed fund can also benefit from moving to the income stream stage with investment earnings within the fund associated with the income stream not subject to fund taxation. The effective tax rate on investment earnings within funds during the accumulation stage is around 6% or so after allowing for imputation credits and capital gains tax concessions, rather than the 15% nominal rate. It is also not unusual for investment returns for account based retirement income streams also to be further boosted by slightly lower fees and some other pooling effects that I do not entirely understand.

The government position is that this tax concession on investment earnings within the fund is a sufficient incentive for retirees to take out an income stream, with compulsory taking of an income stream not a necessary public policy requirement.

## **NOT SPENDING TOO MUCH IN RETIREMENT**

This is a point which also needs to be kept in mind when considering the advantages or disadvantages of drawdown patterns of various retirement income streams. There actually is no obligation on an individual to spend all the income that the legislative rules require to be drawn down in a given year. If the individual considers that they should make additional provision for old, old age then they can further invest (save) part of their retirement income. If they are aged under 65 or meet the not terribly demanding work test for contributions by those aged 65 to 74 they are even able to contribute the amounts back into superannuation.

In any event there is no evidence that the current minimum drawdown factors involve an excessive level of drawdowns. The factors are both simpler and lower than the factors that applied prior to 1 July 2007. A recent paper (Bateman and Thorp, 2007) also indicates that the new regulations are a substantial improvement over the previous legislated minimum drawdown limits for allocated pensions and are a good compromise in terms of simplicity, adequacy and risk.

Further, assuming a long run rate of return of 8% and drawing down only the minimum amount each year, a person could be well into their nineties before their account balance declines in nominal terms (apart from any year to year capital volatility). However, equally it is open to an individual to

completely exhaust their account balance in the first year given that there are no maximum limits on drawdowns.

There is also some evidence that the private expenditure needs of retirees decline with extreme old age. While health and residential care costs of a substantial minority of the old aged can be very large, such costs generally are largely or wholly covered by publicly funded arrangements and needs based assessments. Costs of purchasing such intensive services outside the publicly funded system are generally prohibitive and cannot be insured against in current insurance markets.

#### **OBTAINING SUFFICIENT POOLING OF THE FINANCIAL RISKS ASSOCIATED WITH LONGER THAN AVERAGE LIFE EXPECTANCY**

The rules applying from 20 September 2007 provide for income streams which either provide for a high degree of protection against longevity and investment risks in the case of life annuities, and a low degree of protection against longevity and investment risks in the case of account based income streams (at least in the case where the underlying investment is not capital guaranteed, and something more than the minimum amounts are drawn down).

There is accordingly a case for further modification of the rules to provide for products somewhere in between on the longevity and investment risk spectrum. A number of commentators have raised the possibility of such products, including Orford, 2007 who has focussed on the possible design features of a new form of life annuity.

In terms of enhancing the underlying investment return offered by a life annuity, one option would be to allow for some degree of variability in the amount of annuity paid each year. This would allow the provider of the annuity to invest in higher return but higher volatility growth assets. In a good investment return year an amount higher than a guaranteed minimum amount could be paid out in the annuity, while in a bad investment return year the minimum or close to it would be paid out. Over the duration of the annuity the overall income delivered to the annuitant could be expected to be higher than would be the case if the product were backed by capital stable assets alone.

Given that there is no longer any special treatment of life annuities under the asset test rules for the Age Pension for annuities taken out from 20 September 2007 onwards, there does not appear to be any compelling public policy reason for prohibiting such variability in annuity payments provided the basis of the variability is appropriately disclosed to purchasers of such annuities. On the other hand, such a product has a certain level of complexity and a certain degree of a lack of transparency that may not make it overly popular in the market. For instance endowment style life insurance products with discretionary bonuses paid to policy holders are not popular with contemporary purchasers for these very reasons.

In regard to possible modifications to the rules for account based income streams, one possibility would be to permit holders of such products to set aside a proportion of their account balance (say 3% or 4%) each year and contribute into a form of tontine which would pay out each subsequent year to surviving contributors a proportion of the amount held in the tontine. The payout rules could be designed so that payments increased substantially after, say, 15 or 20 years of continued contributions.

Preferably the tontine would be taxed on a similar basis to the treatment of segregated pension assets, namely no tax paid on the investment earnings. Also in order to genuinely spread risk and to avoid

estate planning strategies within small funds and families, there might need to be a requirement for the tontine to have at least 50 members within its first year of operation.

Whether financial products of the type described above would be popular in the market could only be tested by them actually being marketed. My suspicion is that neither would be overwhelmingly popular. In particular, a modified life annuity would be likely to attract levels of interest similar to existing types of annuity, which is not very much public interest at all. There may be more of a market for a modified account based income stream which provides a degree of protection against the financial consequences of longevity. As well there are likely to be some 700,000 or so existing allocated pensions or account based income streams which is a relatively large potential market.

## CONCLUSIONS

The greatest challenge for most fund members in dealing with the financial consequences of longevity is to accumulate a reasonable level of financial savings by the time of retirement. Once more than a modest lump sum is achieved then the sensible option from the viewpoints of both individuals and society as a whole is to make use of some sort of income stream in retirement.

Having a range of types of income stream available helps to deal with individual needs and tastes. The public policy grounds for compulsory annuitisation of retirement savings are not particularly strong. Compulsory annuitisation only applies in a minority of countries and where there is a choice the bulk of retirees choose an option with access to capital, Yermo, 2001.

The new income stream rules provide a considerable degree of flexibility for most retirees, especially those who take out an account based income stream. However, there is a case for modification of the legislative rules so as to allow the development of life annuities with more attractive investment returns, and the development of products designed to assist holders of account based income streams with the financial consequences of longevity.

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## ATTACHMENT A

### REGULATORY RULES FOR INCOME STREAMS

From 20 September 2007 there will only be two types of superannuation income streams:

- Account based pensions and annuities; and
- Non-account based pensions and annuities.

#### Account Based Income Streams:

Account based income streams are the equivalent of an allocated pension. The distinguishing features of an account based income stream are that:

- The pensioner has an individual account, and
- That the pension payments are made at least annually

Like the current rules, the pensioner cannot commute the pension unless the minimum annual pension payment has been made or there is sufficient left in the account to pay the minimum. Significantly, there is no maximum amount that can be paid out. Instead, the sole requirement is that a minimum annual payment be made. The minimum payment amount is calculated by multiplying the account balance by an age based percentage factor.

#### Account Based Income Stream Factors:

##### Schedule 7

Under 65	4%
65 – 74	5%
75 - 79	6%
80 - 84	7%
85 - 89	9%
90 - 94	11%
95 or more	14%

#### Transition to retirement account-based income streams (TRAPS).

A non-commutable allocated annuity or pension, which the industry informally refer to as transition to retirement pensions or TRAPS, is now formally defined as a transition to retirement income stream when issued in accordance with a modified set of account based income stream rules.

Account-based transition to retirement income streams use the account-based income stream rules but with two changes:

- The first is that the pension must be non-commutable before age 65 unless another 'nil' condition of release is met.
- The second is that the maximum annual draw down amount in any year is restricted to 10% of the account balance.

### **Non-account Based Income Streams:**

Non-account based income streams are the equivalent of the previous complying pensions and annuities.

There are basically two types of non-account based income streams:

- Income streams with a residual capital value; and
- Fixed term or whole of life income streams.

Each of these can be issued either by a superannuation fund as a pension or by a life insurance company or registered organisation as an annuity.

### **Non-account Based Income Stream Rules**

All income streams with a residual capital value, issued for a fixed term or which are whole of life income streams and which are issued from 20 September 2007 must comply with three basic rules:

- First, the income stream must only be transferable on the death of the primary or a reversionary beneficiary and in accordance with the new reversion rules.
- Next, neither the capital value of the income stream or the income from it can be used as security for borrowing.
- Finally, the rules on commutations must be met. Generally, commutations are restricted to commutations on death of the pensioner, or to pay a superannuation contributions surcharge debt, or to comply with a family law payment split order.

### **Income streams with a residual capital value – minimum payment**

The annual payment must be at least the **purchase price** multiplied by the relevant percentage factor in schedule 7. The factors are the same as those used for account based income streams, the difference being the figure on which the minimum annual payment amount is calculated:

### **Fixed Term and Whole of Life Income Streams**

These can be issued either under the new Regulations 1.05(11A)(b) and 1.06(9A)(b) or under the existing rules in Regulations 1.05(2) and 1.06(2). Where a fixed term or a whole of life income stream is issued under the new regulations [1.05(11A)(b) or regulation 1.06(9A)(b)] the income stream must comply with the general rules and additionally,



- The income stream must be payable for a fixed term not exceeding 100 years less the pensioners age on commencement or is payable for life, and
- After the first full income year, the pension payments cannot vary by more than plus or minus 5% on the previous years pension payment except under an indexation arrangement.
- Additionally, there must be no arrangement for an amount or a percentage of the purchase price to be returned when the pension ceases.
- If the income stream is an annuity there is a further restriction: The whole purchase price must be converted into annuity payments.

Funds can also issue income streams that meet the existing rules for pensions contained in regulation 1.06(2), Life companies can also issue annuities that meet the rules for annuities contained in regulation 1.05(2).

### **Paying Reversionary Pensions**

The regulations state that a reversionary pensioner must be a dependant of the deceased, and in the case of a dependant who is a child of the deceased the reversionary pension is only payable in limited cases and for limited periods.

- Where a member dies **on or after 1 July 2007** a **reversionary pension or annuity** can only be paid to a person who, at the time of the member's death, was a:
  - Spouse of the deceased;
  - Person with whom the person has an interdependency relationship;
  - Financial dependant, or
  - In the case of dependant who is a child of the member, only if:
    - The child is less than 18 years of age; or
    - 18 years old but less than 25 and financially dependent on the deceased pensioner; or
    - Has a disability that meets the definition in subsection 8(1) of the *Disability Services Act 1986*.

This rule on reversionary pensions applies to the reversion of all existing pensions irrespective of when they were commenced. If a person does not meet the definition of a reversionary pensioner then any reversionary benefit can only be paid as a lump sum.