



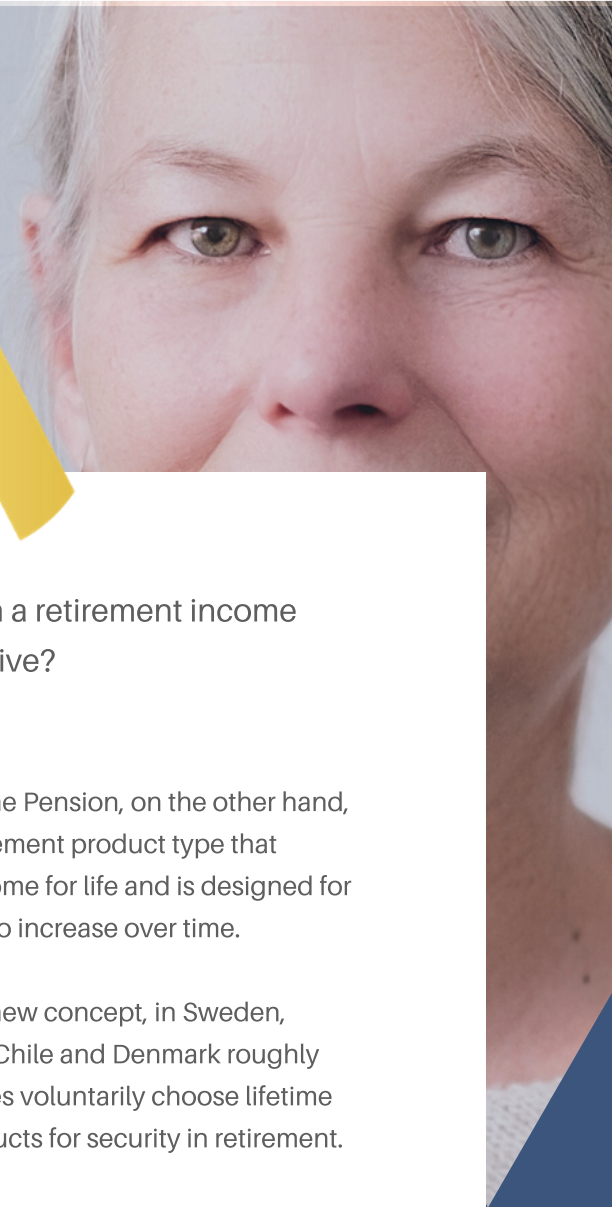
OPTIMUM
PENSIONS

HOW TO PROFIT FROM OTHER PEOPLE'S DEATHS

Everything You Wanted to
Know About Mortality Credits
& Were Too Afraid to Ask.

Redesigning
Retirement

Hopefully it
was amusement and
interest not avarice
that made you start to
read this paper.



Did you know that few Australians are prepared with a retirement income that is guaranteed to last - no matter how long they live?

Currently the prevailing product offered by Australian superannuation funds to retirees is an Account Based Pension where members make regular withdrawals from their savings to facilitate their retirement 'income'.

Withdrawing too much in the early years creates a risk of exhausting the account prematurely, leaving members struggling to make ends meet.

However, with life expectancy levels reaching record highs [1] Australians increasingly face the risk of outliving their retirement income with this solution. A recent survey by the National Seniors Association [2] shows that over half of retirees feel anxious that their savings could run out and a third of those over age 80 had done so [3].

A Real Lifetime Pension, on the other hand, is a new retirement product type that provides income for life and is designed for that income to increase over time.

This is not a new concept, in Sweden, Switzerland, Chile and Denmark roughly 80% of retirees voluntarily choose lifetime income products for security in retirement.

Hopefully a larger percentage of Australian retirees will understand the benefits of a Real Lifetime Pension - for their own protection and to help reduce taxpayer expense on the Age Pension and aged care support for retirees who do exhaust their savings.

BUT HOW CAN YOU PROFIT FROM OTHER PEOPLE'S DEATH?

In this paper we explain the inner workings of a Real Lifetime Pension and how ultimately, retirees who invest in a Real Lifetime Pension benefit from other people's deaths.

To start with, it is important to understand that the present value of benefits provided by the same investment in an Account Based Pension and a Real Lifetime Pension can, in fact, be exactly the same.

Differences only arise when you consider the length of time the benefit will be paid for, the form of those benefits and, most importantly, to whom they get paid after your death.

With a Real Lifetime Pension :-

- If you die too early, your investment may not be fully returned.
- If you live exactly to the life expectancy assumed, your investment will be 100% returned, less costs but plus investment earnings.
- If you live longer than expected, your investment will be more than returned.

It should be noted that major studies have shown that younger retirees, aged 60-69, underestimate their life expectancy by around 4 years, and retirees aged 70-79 under-estimate their life expectancy by around 2.5 years [4].

A lifetime pension (or annuity) is the only insurance you can buy against outliving your savings.

Both miscalculations can result in an income that is not well balanced.

This risk of running out of savings if you live too long is termed 'longevity risk' but the word "longevity" could be replaced with the word "lifestyle". If your retirement income doesn't keep pace with your cost of living, then your lifestyle will correspondingly reduce. A longitudinal study in the USA has shown that "lifetime pensions engender financial peace of mind in retirement". In fact, "people seem willing to pay a premium over fair value to offset what could be the greatest financial risk in retirement."

Of course dying too early can also be a problem...

Recent independent surveys indicate there is strong desire among financial planners to use annuities more, with 59% saying they would do so if all types of annuities were available to them. [5]

From the consumer perspective, research reveals that the top priority in selecting a retirement income product is income that lasts for life – ahead of guaranteed minimum income payments [6].

Clearly if more efficient and effective Real Lifetime Pensions are available in Australia then financial advisers will be willing to recommend them.

Current lifetime income products are perceived as unfair value.

Part of this perception can be attributed to the financial planning software advisers rely on to evaluate how long retirees live [7]. Unfortunately, the main software tools understate life expectancy by using historic life tables and ignoring the improvement factors which accompany those life tables - published by the Australian Government Actuary.

Improvement factors consider over 125 years of Australian mortality data. They are designed by the Australian Government Actuary to help retirees allow for the fact our lifespans continue to get longer and longer due to medical developments and healthier lifestyles.



By the time someone retiring today reaches their mid-80s, two decades will have passed since retirement! Ignoring the improvement in life expectancy over this period understates the present value of a person's financial needs at retirement [8].

A person might have 3 major financial needs at retirement: -

1. Income that broadly increases with inflation
2. Access to cash, and possibly
3. Legacy (or bequest)

The best way to achieve these financial needs could be a combination of a Real Lifetime Pension and an Account Based Pension selected with the help of a professional adviser.

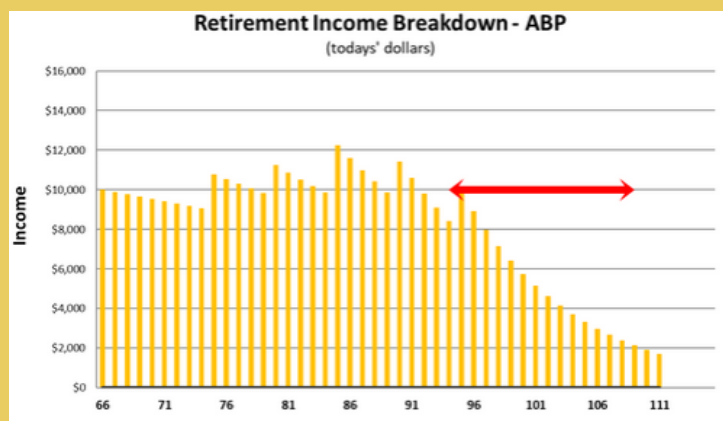
Almost all retirees need to make a trade-off between these competing objectives. The more income needed, the less available cash and legacy and vice versa.

People who believe in SKling (Spending Kids Inheritance) will put less weight on the last two objectives and prefer to enjoy an increased income for the rest of their lives.

They might also think that their children's generation are able to enjoy a significantly higher standard of living than they did, so why subsidise them when they'll already inherit non-superannuation assets such as property – and therefore prefer to place more of their superannuation in a Real Lifetime Pension than an Account Based Pension .

A different combination of weightings will suit each retiree.

Comparing Real Lifetime Pension and Account Based Pension products for the same amount of investment at retirement, the resulting income over the retirement period differs greatly [9]:-



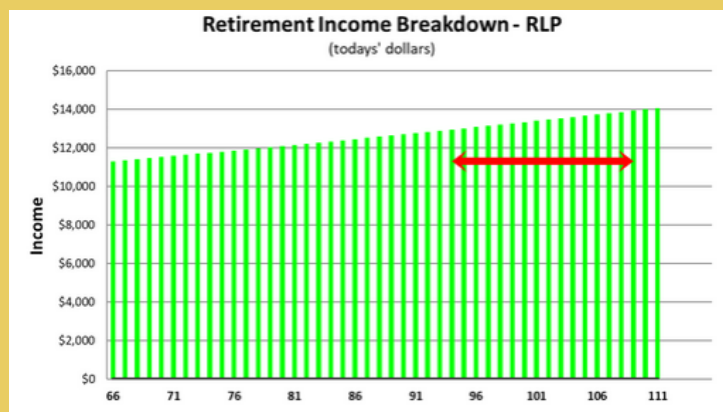
66-year-old male

\$200,000 7% pa growth

0.5% pa ABP fees

2.5% inflation

0.5% longevity insurance fees.



The Real Lifetime Pension used in this example is the white label design available from Optimum Pensions and Hannover Re. The rate is for a single male with a 15-year guarantee period.

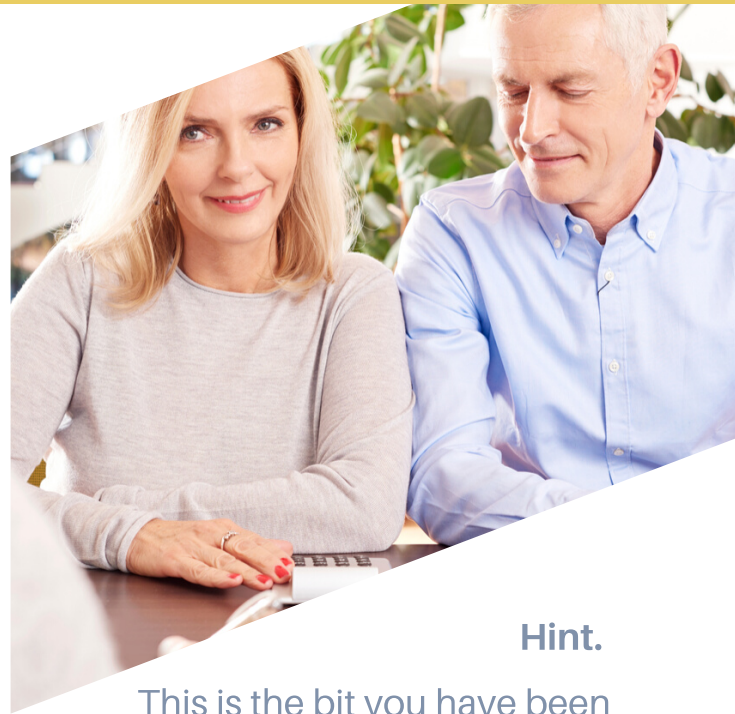
The graphs show that a retiree can have a higher income or standard of living throughout retirement by purchasing a Real Lifetime Pension than by purchasing an Account Based Pension .
[10]

If we consider a group of 66-year-old males, a quarter of them will live to somewhere in the range indicated by the red arrows. This helps to indicate the longevity risk they face. An earlier death might solve that problem, but it doesn't seem a popular solution.

A retiree who doesn't purchase a Real Lifetime Pension can need up to 30 percent more in savings at retirement in order to be confident their income will last for their whole life (however long that might be – even to over 100 years of age) than a retiree who purchased a Real Lifetime Pension .

Why can a Real Lifetime Pension pay such higher income than an Account Based Pension? (and why isn't everyone doing it?!)

Lifetime income products, like any kind of insurance, are based on the principle of risk pooling. Pooling risk means that the combined resources of the pool can be better directed toward those who need them - rather than those who don't.



Hint.

This is the bit you have been waiting for, how to profit from other people's deaths.

All retirees who invest in a Real Lifetime Pension have their assets held in a pool which is either a separate section of their super fund or, for annuities from a life insurer, a life statutory fund.

Only the retirees still alive will continue to receive a pension payment from the pool, and if you die, the pool retains the assets. In other words, the pensioners that are still alive share the assets of those who have died. It works in exactly the same way as regular insurances for life, houses, cars etc. The premiums of those who don't need to claim are used to pay the benefits to those who do.

It is a misconception that on a pensioner's death, their share of the assets goes back to the super fund or life insurance company as profit. The assets, called 'mortality' or 'survivorship' credits are used for the benefit of those who survive. Without it, future pensions could not continue to be paid at that level.

Although, in some cases, under specific Real Lifetime Pension options, some of those who die may receive a minimum death benefit or could select a reversionary pension for their spouse.

HOW TO PROFIT FROM OTHER PEOPLE'S DEATHS

Looking at this through an investment lens, at each stage of a Real Lifetime Pension, income is derived from:-

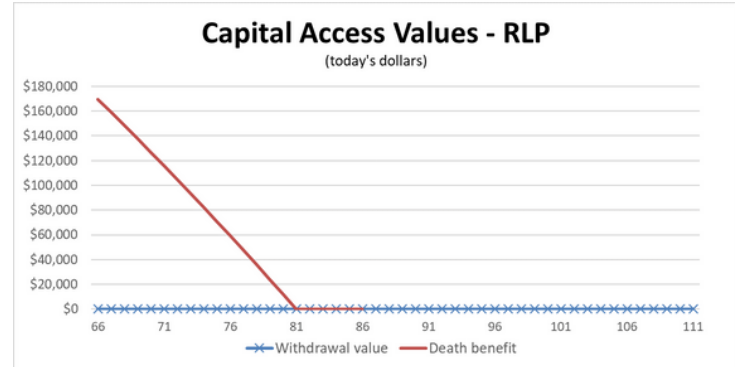
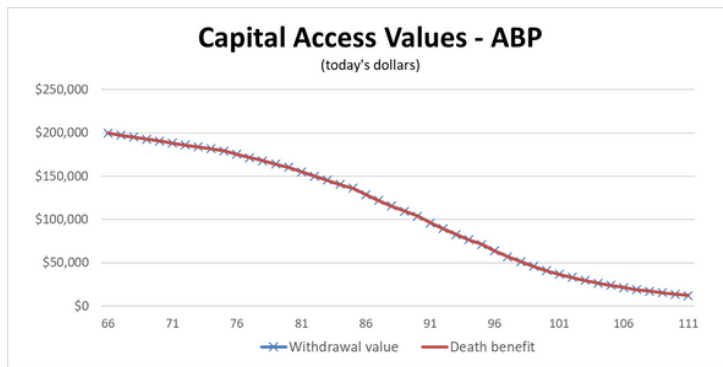
1. Investment earnings on your remaining capital,
2. A return of some of that capital in the form of income - like the reverse of a mortgage that you're paying off, except that now you are the lender, and
3. your share of mortality credits - which will grow over time.

For those who survive, the third income source of increased mortality credits can represent a significant enhancement to returns received later in life.

The value of mortality credits is provided to those who need income for a long time, as shown in the following graph in the green section.



Using the same Real Lifetime Pension and Account Based Pension factors as the previous example [11], the related amount of capital available for withdrawal or legacy from each product are shown below:



Keeping in mind the 3 major kind of financial objectives at retirement outlined previously: -

1. Income that broadly increases with inflation
2. Access to cash, and possibly
3. Legacy (or bequest)

The Real Lifetime Pension is able to maximise the income it pays for life by not paying a withdrawal value (Objective 2) and reducing the benefit payable on death (Objective 3).

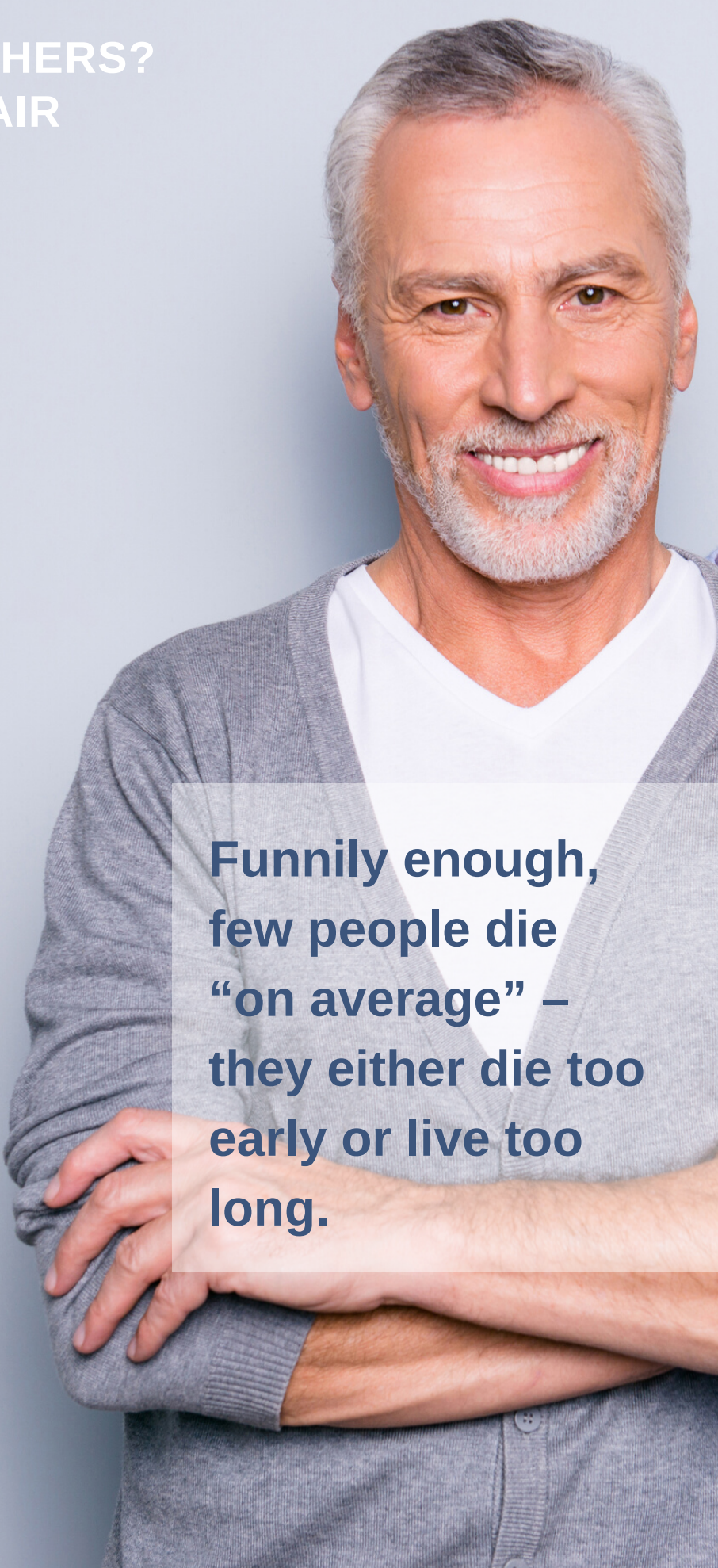
A combination of a Real Lifetime Pension and Account Based Pension can allow each retiree to make a trade-off between their personal needs and objectives. However, there are no free lunches...

WHAT IF I'M LESS HEALTHY THAN OTHERS? HOW DO I GET A FAIR DEAL?

Some people think that their personal circumstances mean their life expectancy is less than the average person of their age, sex, smoker status etc. For example, blue collar workers might, on average, have shorter lifespans than white collar workers. While this might be true, it should be noted that some lifetime pension providers will consider each retiree's individual health status when they purchase their pension.

It is similar to the type of individual underwriting and personal profiling carried out when a person applies for life insurance. In the case of a Real Lifetime Pension this could mean that people with shorter life expectancies receive a higher annual pension than those who are likely to live longer. This works to ensure each retiree gets a fair deal.

The present value of each person's future pension is, at the point of commencement, equal to the amount they invested. Individual underwriting means that each person will benefit from or contribute to mortality credits in a fair way – and a more equitable result will be achieved for all retirees.



**Funnily enough,
few people die
“on average” –
they either die too
early or live too
long.**

RISK OF DYING TOO EARLY

From a retiree's viewpoint, dying early can mean you have a reasonable lifestyle up to that point in time. But with a Real Lifetime Pension you may not "get your initial investment back" if you die too early. As far as we know, you can't take your wealth with you when it is your time, so if your objective was to have a better lifestyle while alive, it's an acceptable risk to take.

This arrangement doesn't suit everyone, and for those wanting to financially look after a spouse after their death, it is possible to extend the likely payout period by effecting a joint life (or reversionary) pension to include them. In theory you could even include others who are financially dependent on you such as disabled children, or even aged parents who you are responsible for financially.

Most retirees in the USA effect joint lifetime pensions with their (possibly longer-living) spouse and choose a 10 to 15-year guarantee period. The guarantee period means that if they die early, they still receive a minimum total benefit of say 15 years of income – which might be a larger percent of the initial investment.

Of course, the price for including these guarantees will result in a correspondingly lower pension per annum as mortality credit contributions are lower.

“Is the greatest risk in dying too early or living too long?”

A great question! The Real Lifetime Pension aims to offer a fair deal – on average. But as stated previously, few people die “on average” but rather too early or live too long.

In summary, from a retiree's viewpoint if you have a Real Lifetime Pension:

- **Dying early** can mean you will have a reasonable lifestyle up to death, and that there are strategies to ensure a certain percentage of investment is given back – but they come at a cost.
- **Living longer** can ensure money for the rest of your life – no matter how long that will be. A risk reduction strategy.

How to profit from other people's deaths – mortality credits can help make living longer a pleasure.

Redesigning Retirement

END NOTES

[1] Latest figures released by the Australian Bureau of Statistics (ABS) 2019.
<https://www.abs.gov.au/ausstats/abs@.nsf/lookup/3302.0.55.001Media%20Release12016-2018>

[2] <https://nationalseniors.com.au/uploads/ChallengerReport-FeelingFinComfortable-Web.pdf>

[3] <https://nationalseniors.com.au/news/latest/once-bitten-twice-shyquestion-gfc-concerns-linger-for-seniors>

[4] 'The impact of behavioral factors on annuitization decisions and decumulation strategies', Anran CHEN, City, University of London, Figure 5.11

[5] Investment Trends
<https://www.moneymanagement.com.au/features/lifetime-security>

[6] Investment Trends
<https://www.moneymanagement.com.au/features/lifetime-security>

[7] The Retirement Income Working Group of the Actuaries Institute of Australia asked how 2,500 planners formulate retirement income advice, De Ravin, Scully, Hennington & Orford 2018

[8] See our paper "You'll live longer than you think" for additional comments. https://www.optimumpensions.com.au/our_research/you-will-live-longer-than-you-think-white-paper/

[9] The charts are for a 66-year-old Male with \$200,000 and assume 7% pa growth, 0.5% pa ABP fees, 2.5% inflation and 0.5% longevity insurance fees. The Real Lifetime Pension used in this example is the design offered by Optimum Pensions and Hannover Re - which superannuation funds can white label and administer now. The rate is for a single male with a 15-year guarantee period.

[10] Given this particular example shows an investment linked Real Lifetime Pension, it is important to note that in both products the retiree's actual income will be affected by the performance of their chosen investment options.

[11] Footnotes [9] and [10]

FOR MORE INFORMATION

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