



OPTIMUM
PENSIONS



**YOU'LL LIVE
LONGER THAN
YOU THINK**

*Redesigning
Retirement*



With decades of expert actuarial experience, plus the creation of a highly valuable supertech outfit, David Orford reviews the current risks financial advisers are taking with a traditional approach to helping clients prepare for retirement by using the Australian Life Tables. Here he explains the challenges Australians will face as they increasingly outlive their life expectations provided by static tables – leading to under-funding in retirement.

When you retire your salary stops and hopefully an adequate pension starts. But the costs of living keep increasing. You don't go off to work every day and no employer or customer puts money in your bank account every month to pay the bills. You need a new way to cover your expenses for 20–40 years - depending on how long you want your retirement to last.

One source of income is via Centrelink. Centrelink's Age Pension does the heavy lifting for many retirees – providing an inflation linked lifetime income that lasts for life – no matter how long they live. Many Australians rely on the Age Pension to support them throughout their retirement years and it provides reliable regular income rather than a lump sum they must manage themselves. The Age Pension has just increased to \$35,916 per annum for a couple and for singles the annual amount is \$23,824. These rates apply if assets and income are below Centrelink's means testing bands.

However, anyone whose assets are above their relevant means testing thresholds or those whose lifestyle costs are more than the Age Pension must structure their own savings (e.g. superannuation and investments) to top up their regular income and meet these costs for the rest of their life.

So how can retirees secure a good income from their own assets for their entire future lifespan – no matter how long they live for?

This white paper will help financial planners and advisers clarify the post-retirement options individuals currently have to choose from and why new ways of assessing these options and calculating longevity is crucial to help them add value for their clients. It will discuss the additional steps the financial planning community needs to take to build viable post-retirement income plans as Australia's population continues to outlive traditional longevity benchmarks.

Lifetime Annuity: For highly risk averse retirees, a Lifetime Annuity lets you use your super to purchase a guaranteed, fixed annuity income from an insurance company. For example, a \$100,000 balance might secure a lifetime income of \$6,800 per annum for a 65 year old male with no spouse. In this scenario the income would NOT increase each year with price inflation but there would be a lump sum benefit upon early death.

Turning assets into income

The product typically used by retirees to spread superannuation savings across retirement is the Account Based Pension (ABP). With an ABP superannuation remains invested in the investment option of choice and the account balance is drawn down for spending needs, subject to minimum withdrawal rates. But the retiree's income reduces if the account balance reduces and might eventually be exhausted. The large risk for retirees is that their money can run out.

Until recently, the only other main product to covert superannuation into regular income in retirement is a lifetime annuity from an insurance company. However, many financial advisers and superannuation professionals seem to view lifetime annuities as poor value for money.

Two of the major longevity risks post-retirement are dying too early and living too long. Financially, the first risk doesn't matter so much as you'll have no further need for money, and there are strategies you can use to ensure you receive a reasonable investment return on your investment. The second risk does, as whatever retirement benefit you've accumulated you'll have to spread over a longer and longer period. With an ABP, the most popular way of "spreading the jam over the bread" or of spreading your income over your future life expectation is to merely withdraw the minimum ABP pension per annum. The key is to not spread that jam too thin.

If you do this then your income from the ABP and the Age Pension will probably decrease in real terms after your life expectancy. Maybe you won't need as much income then as you won't spend as much as you do now. However why should you suffer a reduction in standard of living if you're healthy and want to continue to enjoy life to the full? Additionally, if you are not as healthy, then you may need more money for medical costs and support.

“Two of the major longevity risks post-retirement are dying too early and living too long.”

David Orford, Optimum Pensions



What income can retirees rely on?

The danger with an ABP is that they look adequate as long as the retiree doesn't live too long and there are no large market downturns – wishful thinking!! If the pensioner dies at their life expectancy according to the Australian Life Tables (ALT) and earns a fixed rate of return, the projected income from an ABP can look better than a lifetime annuity. For example, if they invest \$100,000 and earn a fixed 6% p.a. return each year then die in exactly 22 years' time, they could draw out \$8,300 per year and have a balance of \$0 on death. Great timing indeed!

But is that really good advice? What happens to the 50% of retirees who live longer?

Half of an adviser's clients are expected to die somewhere between their life expectancy and the end of the ALT (currently age 109 years and increasing). Retirees from affluent households are more likely to consult financial advisers. Global mortality studies show that wealthy retirees have longer life expectancies.

One way retirees can determine whether buying a lifetime income stream is fair value for money is to consider whether they can produce a better outcome by investing that money elsewhere. That is, can they make that investment and draw out the same income as the annuity would have paid and have surplus assets left over?

The assessment requires an estimate of how long the retiree will live and what return they can earn on that investment. There is an element of uncertainty to both statistics.

A popular approach to the problem is to work backwards and calculate what investment return the assets would need to earn – to match the annuity payments. This calculation is called the Internal Rate of Return (IRR).

“Advisers need to know the true yield on a lifetime annuity if their clients exceed their life expectancy by a reasonable time. Retirees still need a good income in their later years, and one that is not reduced as they just spend the monies in different ways.”

Peter Hawks, Annuity Brokers of Australia

Understanding how an IRR works

For example, consider a 65 year old male who is offered a \$100,000 investment in a lifetime annuity. Based on current rates, a conventional lifetime annuity with a death benefit in the early years of retirement and no adjustment for inflation might provide an income of \$6,800 per annum for life.

If he lives to the end of the life tables (age 109) then the IRR, or the fixed return required on his own investment to fund \$6,800 per year for 45 years, is 6.4% per annum. That 6.4% would need to be a guaranteed fixed rate net of all fees, charges and taxes to succeed.

However, if he dies earlier, say at age 80, then the IRR is closer to 0%. He could have earned no return at all and still be able to afford the \$6,800 per year that the annuity would have paid him. That's a big difference.

The return he'd need to match the cashflows from the annuity could even be negative if he died early in retirement i.e. before age 79.

The following chart shows the IRR needed for a \$100,000 investment to pay \$6,800 per annum for life – based on a full range of possible lifespan scenarios. You can see that the longer the retiree lives the higher the return that would be needed to fund that income for life. For example, if he lived until age 90 the IRR would be 4.6% per annum.

It's clear from this chart that a person's likely future lifetime (as distinct from life expectancy – which is only an average) is a critical aspect in assessing whether a lifetime income stream is good value for money or not.

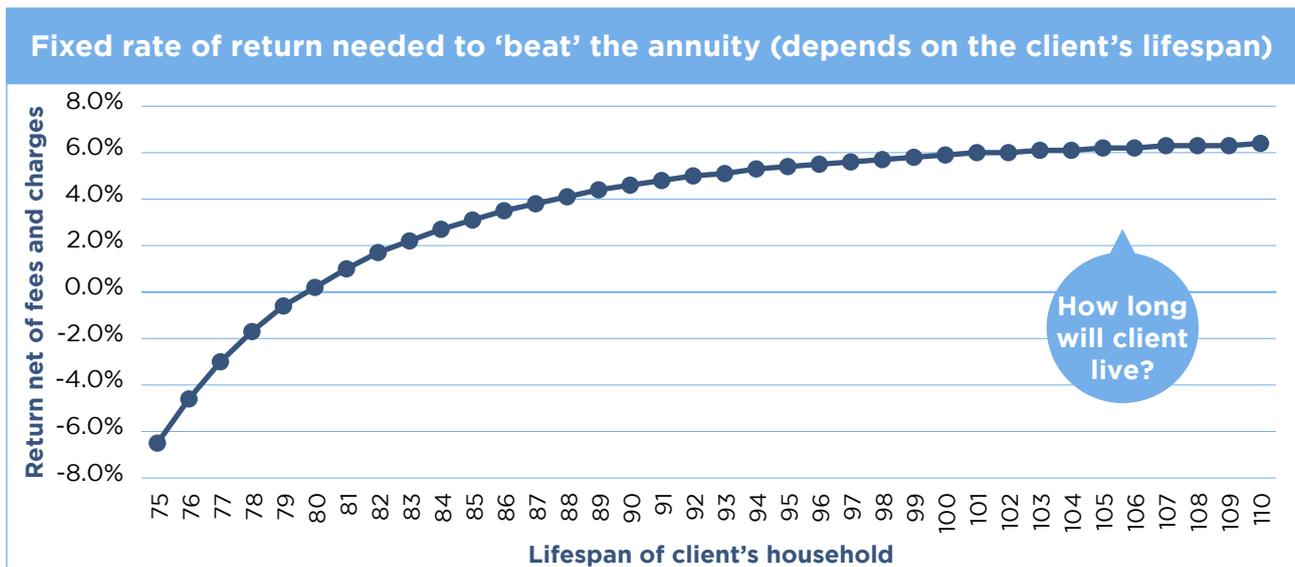


Table 1: Optimum Pensions: the longer you live the higher return you need

“Advisers are given static life expectancy results from the Government Actuary’s Australian Life Tables – but without the Government Actuary’s improvement factors.” *David Orford, Optimum Pensions*

Getting life expectancy right

Recent research by the **Actuaries Institute of Australia** found that the tools used by advisers to look up life expectancy may dramatically understate reality for many of their clients. Advisers are given static life expectancy results from the Government Actuary’s Australian Life Tables – but without the Government Actuary’s improvement factors. These improvement factors take into account that retiree mortality rates have been steadily reducing since at least the mid-1960s and are expected to keep doing so.

As macabre as it sounds, your ‘mortality rate’ is the probability you die in the next 12 months. The lower your probability of dying at each future age the higher is your overall life expectancy.

What we are seeing is the current rate of mortality at each age is predicted to reduce significantly by the time someone today reaches that age. For example, using the Government Actuary’s 25 year improvement factors, by the time a current 65 year old reaches age 75 the mortality rate for a 75 year old male will be around 40% less than it was when the tables were produced.

A similar type effect occurs at most ages. In effect, your life expectancy gets longer the longer you live – because the mortality rates decrease!

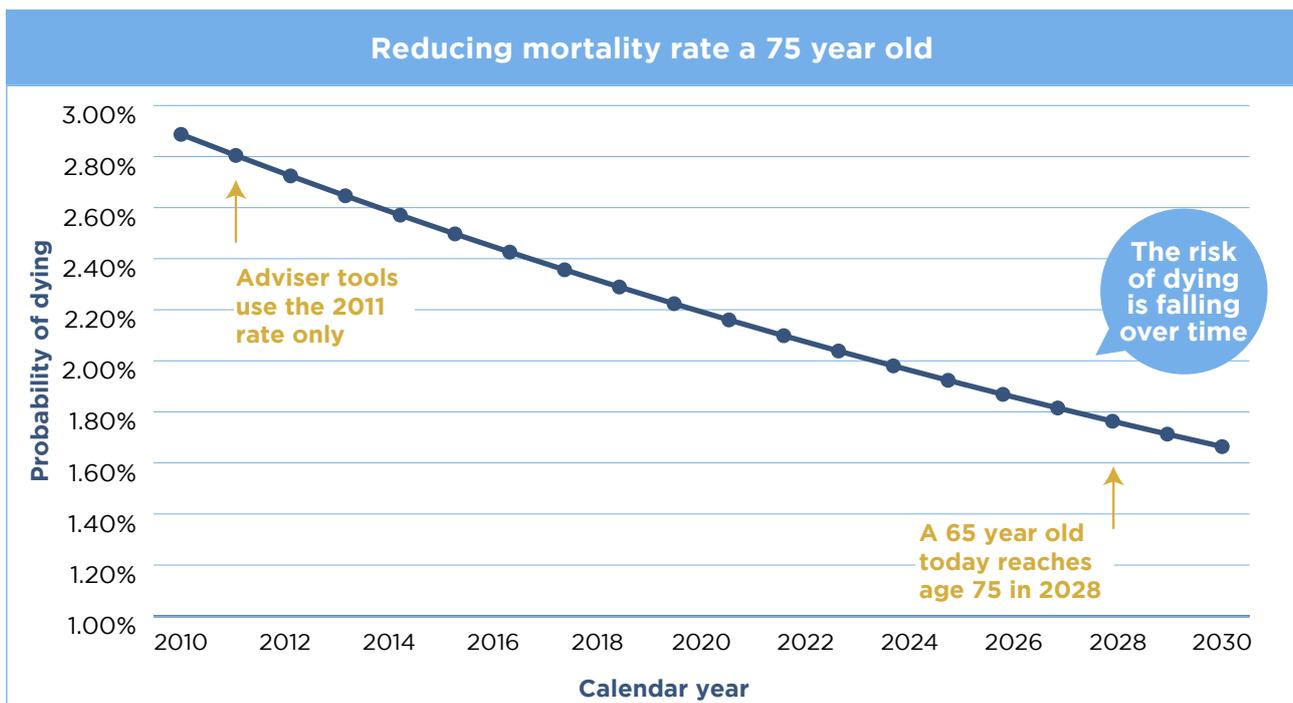


Table 2: Optimum Pensions using ALT 2010–12 with 25 year improvement factors



Life tables: behind the trend

Since the mid 1960's the mortality rate for a 65 year old male has fallen by more than half. This trend is expected to continue. Yet the simple lookup tables for life expectancy don't take this ongoing trend into account.

Australia now has a history of 125 years of mortality data. The Government Actuary's improvement tables are based on clear trends on how mortality rates are reducing over time. Life expectancy tools that include these improvements provide a more appropriate figure for a client's life expectancy. Not to allow for these improvement factors would be misleading.

If we take our 65 year old's life expectancy from the simple lookup table in the latest **Australian Life Tables**¹ (ALT 2010-12 - without improvements) we get the figure of age 84.2 for a 65 male, or 19.2 years from today. For a female it's age 87, or 22 years.

However, the life expectancy for a 65 year old male, allowing for the Government Actuary's 25 year improvement rates is 87.1 (or 22.1 years). For a 65 year old female, her life expectancy with improvements is age 89 (or 24 years).

Be more than average

However, the average is still not the whole story. In fact, if both retirees were a couple, our female retiree was 3 years younger, they are healthy and wealthy and want an 80% chance their planning horizon can last as long as at least one of them is alive, then they need an income that's able to last well over **35 years**²!

The Actuaries Institute of Australia is carrying out a research project on behalf of the Orford Family Trust to better understand the life expectancies of people most likely to consider lifetime income products - healthier retirees who live longer than those whose health status is below average. The results from this study are expected to be crucial for product providers to fairly price longevity products in Australia and at the same time will help advisers to assess them - particularly for healthy wealthy clients.

1. http://www.aga.gov.au/publications/life_table_2010-12/downloads/Australian_Life_Tables_2010-12_Final_V2.pdf
2. Using ALT2010-12 with 25 year improvements and a 2 year age adjustment for healthy lives

“Unfortunately, based on the static ALT, your real or anticipated life expectation will be understated.”

David Orford, Optimum Pensions

ALT understate the length of time every Australian will live

In summary, unfortunately based on the static ALT, your real or anticipated life expectation will be understated. Your life expectation from the Australian Life Tables (ALT) will understate your real or “expected” life expectation as:

1. The ALT were based on the mortality of Australians over the three calendar years centred on the 2011 Census and life expectations have continued to improve since those tables were produced.
2. Retirees will hopefully experience reductions in mortality (or increases in life expectation) at each future age they achieve, with the reductions increasing at each succeeding age that they reach.
3. The ALT were based on the Australian population as a whole, including those who were not working before they reached their pension age. People who work are generally in better health i.e. have lower expected mortality rates than those people who don't work e.g. if they cannot work because of some health impairment.

Planning for the best after-tax real income for clients

Therefore, it is a mistake to use the life expectations shown in the ALT relating to sex and age - as these will understate a client's likely real “life expectation”.

You'll need to take your client's real life expectation into account in their financial planning e.g. when determining how much they need to accumulate by retirement to enjoy a reliable after-tax income per annum. Not to make this allowance is to understate the need for a sufficient account balance at retirement relative to the after-tax real income that they require.

When you're making these calculations for a couple, it would be desirable to use real life expectations for both parties. The same concept applies where your planning also takes into account the future income needs of an aged parent or a disabled child who needs to be provided for.

Actuaries who set the purchase rates for pensions and lifetime annuities take these factors into account in their pricing decisions, plus one more factor - people who purchase lifetime pensions or annuities are usually in better health than those who don't purchase them.

These four reasons might mean that a lifetime pension or annuity could be far more valuable than a client may expect, assume or have calculated, as it is expected to be paid for a longer period than their life expectation shown in the ALT for their current age and sex.

“In the case of the Age Pension, people cannot live on that – they merely exist in my experience. Australian retirees need their income to at least cover the base living costs that all people face in the future.”

Peter Hawks, Annuity Brokers of Australia



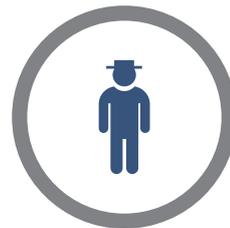
Real life expectation single



Real life expectation couple



Real life expectation couple plus dependent



Lifetime pension purchasers usually healthier

Outperforming annuities

For retirees with long life expectancies, current market yields on long term bonds indicate that it would be potentially dangerous in today's market conditions to recommend a client can earn over 4% per annum as a fixed return year on year – net of fees and charges. Term deposit rates are currently under 3% and long term government bond yields are only slightly above 3%.

In reality the type of investments that can potentially generate returns over 4% are likely to involve volatility and if used in an ABP carry an element of 'sequence risk' (the risk that if returns are less than what you draw out then you're withdrawing some capital which can't be recovered). An IRR calculation depends on the investment return being fixed and earned year on year without varying.

Investment option	What it means	Assumed investment return (before tax and fees)*
Cash	100% in deposits with Australian deposit-taking institutions	2.7%
Conservative	Around 30% in shares and property. The rest in cash or fixed interest	3.8%
Moderate	Around 50% in shares and property. The rest in cash or fixed interest	4.4%
Balanced	Around 70% in shares and property. The rest in cash or fixed	4.8%
Growth	Around 85% in shares and property. The rest in the cash or fixed interest	5.0%
High growth	100% in in shares and property	5.3%

* ASIC MoneySmart assumed default investment returns are based on actuarial advice received in May 2018



Giving your clients the best of both worlds option

ASIC MoneySmart's retirement income calculator has a default assumed growth rate of 3.7% net of tax and fees (4.8% gross) when forecasting the income from a balanced portfolio in retirement, presumably to be prudent once issues like sequence risk are taken into account.

Market volatility can make a big difference to ABP outcomes. Advisers expose their clients to a different kind of risk when recommending investments that carry sequence risks. Before recommending a client take on risk in a drawdown product to 'beat' an annuity, financial advisers should first carry out sophisticated scenario testing³ (or monte-carlo modelling) to test all likely market sequences that their client could potentially experience. The adviser needs to prove that the expected risk premium provides a sufficient margin considering all likely drawdown and life expectation scenarios.

Because of increasing longevity, ABPs could struggle to outperform income streams that have longevity protection – for more clients than advisers may currently think.

New retirement product innovation in Australia means that retirees can now look forward to the best of both worlds – exposure to growth assets if they wish as well as the benefit of longevity protection to ensure their money never runs out while they are still living.

Australian retirees with a moderate to balanced attitude to retirement risk can allocate some of their assets to new investment-linked lifetime pensions that offer the ability to choose investment options with the potential to outperform a conventional annuity in the long term as well as a guarantee that their retirement income will continue for life – however long that might be – and broadly keep pace with inflation.

What's needed is a more accurate assessment of each client's life expectancy and an understanding of the growing range of products available to manage investment risk and longevity risk in tandem. It's becoming clear that the Account Based Pensions is no longer a suitable 'one-size fits all' product for retirement. There is a need to look beyond the current options and focus on the ability to improve the retirement outcomes for Australian retirees – no matter how long they live. This uncomfortable and somewhat unpopular topic to some people, needs to be addressed urgently for the financial and emotional benefit of all future retirees.

3. An example of the tools that can perform this type of modelling is www.10e24.com

Contributors



DAVID ORFORD,
MANAGING DIRECTOR

With more than 50 years actuarial, product development and consulting experience, together with a highly successful career in Australia's superannuation industry, David Orford today is committed to helping Australians lead a comfortable retirement. Optimum Pensions is his latest venture to provide a superior solution to longevity risk – an issue facing every Australian.



JIM HENNINGTON,
HEAD OF INNOVATION

Jim is a recognised thought leader on retirement income strategy and modelling. An Actuary, he is involved in product design and developing modelling tools to make Optimum's pensions accessible to planners and retirees.



PETER ROWE,
GENERAL MANAGER

Peter has spent over 25 years in the superannuation industry with over 30 years in senior management roles. He has had extensive experience in pension management and administration and is keen to implement this new range of income streams.



PETER HAWKS,
ANNUITY BROKERS
OF AUSTRALIA

Peter is an expert in annuities and helping Australians prepare for retirement.



OPTIMUM PENSIONS

Optimum Pensions has developed and tested an innovative lifetime income stream solution, the Real Lifetime Pension, that may be delivered by Funds to their members to comprehensively address Australians' longevity risk while providing higher performance than other solutions such as the current lifetime annuities in the market.

CONTACT US TODAY:

-  +614 0774 7802
-  david@optimumpensions.com.au
peter@optimumpensions.com.au
-  @optimumpensions
-  @optimumpensions

*Redesigning
Retirement*