THOUGHTS BEHIND THE REAL LIFETIME PENSION

Redesigning Retirement

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Thoughts Behind the

REAL LIFETIME PENSION

David Orford, the founder and owner of Optimum Pensions, is also the principal architect of the product. Originally a partner with actuarial firm, E.S. Knight and Co, Actuary to 4 Life Insurance Companies (for one of which he designed a CPI indexed lifetime annuity), David had taken his background, knowledge and skills in actuarial consulting and superannuation to found Financial Synergy, in 1978, which became Australia's leading provider of superannuation administration software, which he sold to listed company IRESS in 2016.

Optimum Pensions has designed and tested an innovative new lifetime income stream, the Real Lifetime Pension ("RLP"), that may be delivered by Superannuation Funds to their members to address Australians' longevity risk, while providing higher performance than current lifetime annuities on the market. It can also provide Funds with a key element of a Comprehensive Income Product for Retirement ("CIPR") solution. David is passionate about helping Australians lead a comfortable retirement. This document provides some background and insight into the thinking behind the development of the Real Lifetime Pension as a solution to managing Australians' longevity risk.

We discuss our ideas under the following headings:

- AN OBJECTIVE FOR EVERY AUSTRALIAN
- HIGHLIGHTING THE NEED FOR MANAGING LONGEVITY RISK
- THE NEED FOR LIFETIME INCOME STREAMS
- PREPARING A FINANCIAL PLAN USING AVERAGE LIFE EXPECTANCY IS A MISTAKE
- PROBLEMS WITH CONVENTIONAL LIFETIME ANNUITIES
- A NEW BREED OF HIGHER PERFORMING LIFETIME INCOME STREAMS
- REAL LIFETIME PENSION
- DON'T PUT ALL RETIREMENT BENEFITS IN ONE BASKET
- SOME OTHER THOUGHTS AND OBSERVATIONS

BETTER LIFETIME INCOME PRODUCTS FOR AUSTRALIANS.

AN OBJECTIVE FOR EVERY AUSTRALIAN

Start with a clean sheet and state that the objective is to provide every retiring Australian with an income payable for the rest of their and their partner's lives that broadly keeps pace with inflation, and allows them to broadly maintain their standard of living. This was stated many years in the past as a potential Australian Government objective and seems personally very desirable. Note that it doesn't say to leave money to anyone else on a person's death, or to take some with you to the afterlife. The Australian Government's tax concessions for superannuation should not better enable "leaving money for others" to be achieved - which is the case now!!! - As the Australian Government's responsibility is to the person to whom it gave the tax concessions - not people who aren't their "dependants".

There are several aspects to this objective:-

ADEQUACY
The most important of all. Financial planners, super fund trustees, the Australian Government and the member themselves have a huge role to play here in attempting to ensure each person has sufficient money at retirement to achieve the above objective. The payoff for all taxpayers is a reduced need to fund the future payment of Age Pensions to those who haven't saved themselves by saving themselves.

PROTECTION AGAINST INFLATION
Almost all of us, not receiving government pensions or income benefits, are not automatically protected from inflation eroding the value of our incomes. Who knows what rates of inflation we'll have in future. Why would one group e.g. us taxpayers, pay for the inflation protection of another group? Currently superannuation pensioners, not on government pensions, do not have their incomes protected against inflation, but suffer and enjoy (at different market stages!!!) the investment returns earned on their super accounts.

LONGEVITY RISK IS THE GREATEST RISK FACED BY RETIREES BUT BEING POORLY MANAGED.

It is our view, the Government's view and "industry's view that longevity risk is the GREATEST risk faced by people post-retirement and that this risk is being poorly managed.

We consider longevity risk is not being managed well due to:

 The Need for managing longevity risk being under appreciated

 Financial Plans being drawn up centered round average life expectancy is a mistake

 Conventional lifetime annuities are not doing a great enough job

HIGHLIGHTING THE NEED FOR MANAGING LONGEVITY RISK

Nick Sherry, former Senator for Tasmania and Minister for Superannuation, said that solving the longevity problem leads to “The last great reform of the Australian superannuation system”. Quite so, as this is what the system is meant to be all about - BUT we have changed and hopefully improved everything else about the superannuation system, except that way the benefits can be delivered.

The chief executive of CPA Australia said that "...Australia's retirement savings policy is not delivering on its policy intent".

Absolutely right - some form of lifetime income stream is needed.

We need LIFETIME income streams, so that the recipient receives an income for the rest of their life. No more and no less. This means people don't have to fear either of the two post-retirement major risks:-

1. Dying too early - e.g. for a lump sum benefit - Leaving money to your cat - and risk that you could have had a better lifestyle by consuming more income.

2. Living too long - which we all want to do, but for a lump sum benefit, people don't want to run out of money, so restrict their consumption or even run out of money.

Each of these are significant risks at ages where it is impossible to recover.

THE NEED FOR LIFETIME INCOME STREAMS

The pension should last as long as we do.

WHAT PEOPLE NEED AT A MINIMUM IS A REGULAR PAYMENT, LIKE A SALARY OR WAGES, THAT IS DEPOSITED INTO THEIR BANK ACCOUNT UNTIL BOTH THEY AND THEIR PARTNER HAVE DIED – AFTER WHICH THEY WON’T NEED IT ANY LONGER.

We need REAL income that keeps roughly the same purchasing power over the rest of a person’s lifetime.

Some people wish to leave a part of their superannuation money to their children - as well as their houses, cars etc. - although this was NOT the reason the Australian Government gave us all tax concessions in respect of superannuation. These payments to children can be considered to be “leakage” from the superannuation system as the money has not gone to those to whom the tax concessions are intended; the retirees.

A lifetime pension is the ONLY way to ensure people have income that lasts a lifetime. Just like (say) car insurance provides almost complete protection against damage to a car, pensions can provide almost complete protection against lack of income post retirement. "Lack of income” can mean "lack of lifestyle" and in extreme conditions even "lack of ability to live".

Forget all you know - start again - don’t carry biases and mis-conceptions.

As Fawlty once said to Basil "Forget everything you know" about annuities and pensions available in the past, as these involve subsidies and risks that either are paid or borne by others, not quantified - and not justified in today's world. These products are part of history and should be forgotten.

OTHER COUNTRIES USE LIFETIME INCOME STREAMS TO MANAGE LONGEVITY RISK

Many years ago I worked in Canada, and found that every retiree received an indexed lifetime pension in their retirement. When asked “what was the superannuation system in Australia?” I proudly said "We pay lump sums in Australia, and people invest them". My colleagues fell to the floor laughing in dis-belief, then asked "...and kangaroos jump down the Main Street too?" Well kangaroos do jump down some Australian Main Streets, and there are many kangaroos in Canberra. Some of them are in Parliament.

Until recently, people in the United Kingdom were required to receive 75% of their retirement benefits in the form of lifetime indexed pensions, BUT were given flexibility as to when they purchase those pensions - but must be before age 75 years. Experience showed that 70% of retirees purchase their lifetime indexed pensions before age 65 years.

Do people in these 2 countries know something about lifetime pensions that we don't?

To me it indicates that it will eventually be possible to have all Australian retirees being appropriately protected against the 2 major post-retirement risks - that can only be minimized or eliminated by lifetime indexed pensions - as these pay benefits as long as the pensioner lives i.e. they generally need money.

Being one of the few actuaries that have designed CPI indexed annuities for a life insurance company in Australia before 2017, I can tell you that the "reinvestment risk" under such products is extremely high, if not unbearable or ”irresponsible to take on”. We don't want any more life insurance companies to become insolvent - by undertaking uncontrollable risks such as assetliability mismatching. Only governments can provide "indexed" pensions - as the cost of this risk is borne by taxpayers. Taxpayers might ask “why should we pay for someone else’s increasing longevity?

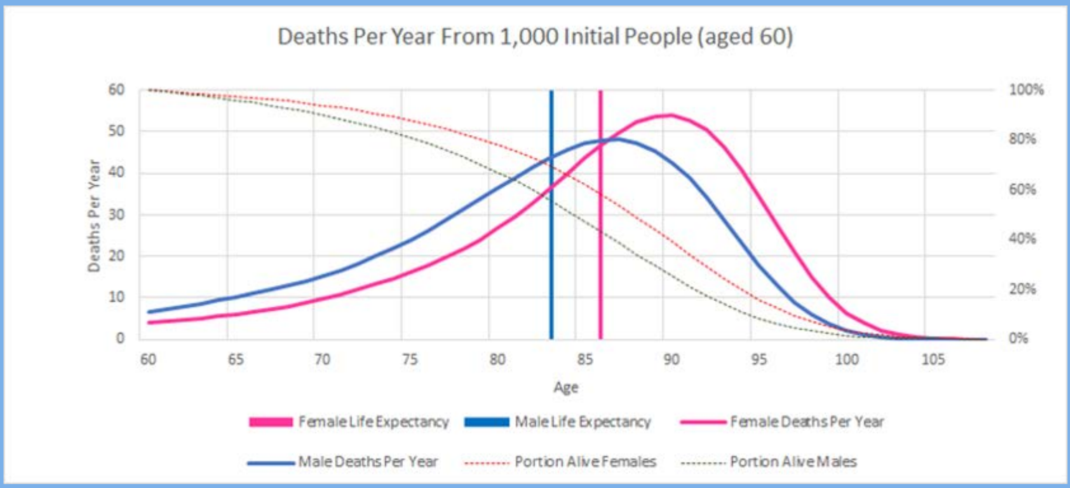
A FINANCIAL PLAN USING AVERAGE LIFE EXPECTANCY IS A MISTAKE

HIGHLIGHTING THE NEED FOR MANAGING LONGEVITY RISK

Napoleon learned about averages the hard way. When his army was advancing on Moscow, he came to a fast flowing river. He asked a farmer sitting on the fence "How deep is this river?" To which the farmer replied "The average depth is one meter". Napoleon ordered his army to cross the river, but found the depth in the middle of the river was over 2 meters - so some of his army was swept downstream. So don't trust averages.

Unfortunately people can use life expectancies to estimate how much money is needed for a person to retire, for example:- Retirement accumulation needed = Income desired post-retirement times life expectancy, after allowing for future investment returns and increases in the cost of living etc. However the "life expectation" is only an average - so is far more dangerous to a person than it was to Napoleon.

The following graphs shows the number of people expected to die each year according to the Australian Life tables 2010-2012:-



For 1,000 people alive at age 60 years, we know that all of them will be dead roughly 45 years later – by age 106 when the life tables stop. On average 22 people will die in each year. Using the life tables it can be estimated that 8 males die in the first year, rising to around 50 in the years around life expectancy, reducing to 9 around age 100 years. So using life expectancies can give you a nice warm feeling – but doesn't do you any good – unless you are in the ONLY 5% of people who do die at their life expectation.

This is why people need negative insurance when they die – claims are made – not when they die – but in income form when they are alive – no matter how long that will be.

I know that financial planners can add a lot of value to people – in the same way as other professionals – that pays for their cost several times over.

I am concerned with the (say) 85% of retirees that don't have the skills and experience or the financial planners to guide them – to do what you and other planners do with your clients. There are not enough financial planners, at a price low income earners can afford (and these are the people for whom we taxpayers will pay their Age Pensions and health care costs in their retirements) nor the technology, to adequately and appropriately help these people.

For them, one problem with an investment-led strategy is that on their death, there will be a lump sum available to their (relatively wealthy – compared to their parents) children – who could be earning income (say) 50% greater than their parents in real terms, at their ages. Also children have a lifetime of earning capacity ahead of them, whereas a retiree has limited or no capacity to earn income.

PROBLEMS WITH CONVENTIONAL LIFETIME ANNUITIES

Australian retirees need better solutions to longevity risk than that offered currently in the market prior to 1 July 2017. The market to date has agreed with this, with less than $2 out of every $100, moving from accumulation mode into pension mode (i.e. “at retirement”), being invested in a lifetime annuities.

What we describe as “Conventional Lifetime Annuities”, involve the Life Insurer offering the annuitant a guaranteed annuity payment for life; either a fixed rate, or indexed to CPI and often with some capital access.

Conventional Lifetime Annuities offer only modest annuity payments (with underlying investment earnings after fees – as it appears to the consumer – close to cash return). This is due to both naturally conservative investment strategies and the cost of the longevity guarantees. Annuity payments are reduced even further by “bells and whistles” offerings such as capital access.

Do life insurance companies make big profits from annuities? Many people think this, but offering lifetime annuities with guarantees of future mortality over a period of up to 50 years in future PLUS the asset/liability mis-matching risk, are some of the most dangerous thing for a life insurer to do – as the risks are unknown and uncontrollable. People might think that when an annuitant dies, that the remaining part of their initial investment plus investment earnings, less annuity payments is payable to the life insurer. Nothing could be further from the truth. These surpluses remain in the fund and are used to pay for the benefits of people where the accumulated annuity payments start to exceed to their initial investment plus investment earnings. The longer annuitants live past their life expectations – the greater will the financial loss be to the life insurer. The profits on the policies of those who die early are needed to pay for the losses in respect of annuitants who live a long time.

Why don’t people don't get a fair return on current Conventional Lifetime Annuities?

Due to the two major types of guarantees that are inherent in the breed of lifetime annuities that have been offered in Australia to date, reserves are required to allow for the potential for these guarantees to become very costly so actuaries (who are responsible for pricing) and APRA (which is responsible for the continued solvency of life insurance companies), insist that a significant part of the annuity purchase price be reserved i.e. not used to purchase the annuity initially. These reserves effectively reduce the amount available to buy the stream of annuity payments.

The two types of guarantees are:-

1. Guarantees of mortality rates inherent in the pricing of annuities. As projecting mortality rates over up to the next 50 years is a very risky activity, and

2. lifetime annuities may well last for up to the next 50 years. There is no known investment that can accurately provide the annuity payments required each year. Fixed interest assets are generally limited to 10 years’ term. Infrastructure projects and mortgages can have a longer term and higher interest rates. However at the end of the investment terms, the basis (including interest rates) on which the proceeds are re-invested is unknown. The risk is that the life insurance company won’t be able to pay the annuities required if market interest rates decrease, although higher interest rates applied when the annuity was initially purchased.

Current and past annuities are expensive for consumers as Life insurance companies have to hold substantial reserves for the extreme, significant and unknown risks that they are required to take on.

The two major risks are:-

1. Mortality rates between a person's age now to the end of the Life Tables e.g. Age 106 years, and

2. Investment returns between now and the end of the Life Tables.

Insurance companies have gone insolvent in other countries due to incorrectly forecasting these two factors. This is the last thing that anybody wants.

Life insurance companies are therefore required to hold adequate reserves to offset adverse consequences should the forecasts made for these factors prove inadequate. These reserves must be set on a conservative basis - to reduce the chance of failure of life insurance companies. Forecasting these factors correctly is impossible in my view.

It is these solvency reserves and the consequent relatively low investment returns that make current annuities so unattractive to people and most members of the financial planning profession.

It is currently (and maybe always) impossible to match assets with the liability profile of a lifetime, inflation-linked annuity. Such protection is very costly to provide. If priced fairly, it is likely that consumers wouldn’t pay for the additional cost of “inflation protection” but settle for an income that provides a similar increase over time - but not “all the time”.

REMOVING THE “FIXED OR INDEXED PAYMENT” GUARANTEE PROVIDES PART OF THE ANSWER

If these guarantees weren’t given, then the reserves would not be required and higher annuity payments could be made - although they might vary more in amount. The law has been changed from 1 July 2017 to allow for non-guaranteed annuities. These traditional annuities are therefore of historical interest only.

A NEW BREED OF HIGHER PERFORMING LIFETIME INCOME STREAMS

Through legislation, effective 1 July 2017, the Australian Government has removed the barriers that can allow a vibrant annuity/pension/lifetime income stream market to develop – to the benefit of all retirees. Australia NEEDS a new form of annuity, that I've called Real Lifetime Pension or RLP that avoids these 2 factors, and thus provides an income per annum that is roughly 20% higher than current annuity incomes – BUT RLP does not contain the guarantees implicit in current annuities – which

PEOPLE DON'T WANT TO PAY FOR - AND DON'T BUY

As many Australians don't want to receive the current type of lifetime pensions or annuities (let's use the word pensions to include "annuities") for many reasons and more, we need to "start again" with a clean sheet to design a range of pensions that people actually want to buy.

In my view a Real Lifetime Income Stream (such as the RLP) should only allow the life insurance company (or superannuation fund that reinsures all of its risks) to be remunerated for its work on a percentage of FUM basis. So all "releases of reserves" on the death of pensioners does not "get paid to the (wicked) life insurance company", BUT stays in the pool for the benefit of the survivors. This retention helps maintain future pension payments.

All investment risk would be borne, as it is now, by the pensioners BUT they could choose to have much more invested in growth assets or capital guaranteed or protected investments if they wished, and could switch between investment options.

All lifetime income stream profits or losses – compared to the initial actuary's assumptions, would be credited to the pensioners – so large solvency reserves would not be required, and the pension would be (say) 20% higher than currently

REAL LIFETIME PENSION

Optimum Pensions has developed and tested an innovative new product, the Real Lifetime Pension ("RLP"), as an effective longevity solution to Australians' longevity risk, providing higher performance than current lifetime annuities on the market.

The RLP is also what the Government would test as a "highly efficient and effective product", which will allow funds to offer a range of compliant CIPRs and thus offer their members an effective longevity solution.

The Real Lifetime Pension is a product that is simple, and doesn't contain the risks (by providing some guarantees) that have caused problems in the past.

 An RLP avoids the risks to the lifestyles of people of living too long and dying too early - as I've already outlined

 An RLP also allow investment flexibility - including purchasing Cash investment options - and those that offer downside protection. All at a reasonable price. As mentioned earlier, Australia now has a system to provide the ideal post-retirement product - which would create benefits for governments and retires - thus creating financial synergies for everyone.

LONGEVITY RISK REINSURANCE

A typical investment linked lifetime annuity or Group Self Annuitisation Product will provide annuity payments which can vary due to two variables

1. Fluctuating investment returns

2. Fluctuating mortality, where the mortality in the pool is lower or higher than expected.

The RLP will use longevity risk reinsurance to eliminate one of these variables, that of fluctuating mortality. This means that annuity payments will vary only with fluctuating investments, which people understand, as this occurs in the Account Based Pension in the same way.

Thus, we consider this will make the RLP payments more predictable and easier to understand.

Longevity can be reinsured on a year by year basis - just like term insurance - but in reverse. Rather than not wanting people to die, with an annuity pool you need enough people to die to justify the actuary's assumptions when the annuity started. It has been said that an actuary estimates "how many need to die" and the Mafia works out "who they will be".

All jokes aside, as a society we'd like everyone to live as long as they want post-retirement. In fact, it will be the people who know that they'll live a long time e.g. because their parents did, that will effect lifetime pensions in the short term.

Reinsurance transfers risk to an entity more capable to bear it.

Reinsurance would be on a risk premium basis and purchased annually or tri-ennially by a life insurance company or superannuation fund from a reinsurance company. Both know at any point of time what mortality rates have been, and could readily forecast and debate what the next year's rates are expected to be. This is an ongoing contract with annual adjustment of rates.

The annuity should be "with-profit" not "non-profit" so that there is flexible pricing should circumstances require e.g. When mortality rates depart markedly from those assumed when the RLP was purchased. This could - I mean WILL occur - due to future reductions in mortality due (say) to medical improvements, or increases in mortality due (say) to Bird Flu epidemics.

I've discussed this concept with 2 actuaries in London, who are world-wide experts on annuity reinsurance - and they embraced this concept. Hopefully RLP pensioners/annuitants will be happy to receive an income that fluctuates in a similar way to their income under an Account Based Pension, but subject to some make up where there is a shortfall.

I am suggesting no change here - so RLP recipients would experience the same investment returns as they do now, but partly in the form of increases in their pension. This means that actuaries don't have to forecast future investment returns and build in solvency reserves into pension/annuity pricing - that makes those products "over-priced" and therefore unattractive to consumers and their financial planners.

DON'T PUT ALL YOUR RETIREMENT EGGS IN ONE BASKET

Looking at the current issues, retirees will have a need post-retirement for:-

- Income that broadly increases with inflation

- Access to cash - for large unplanned expenses

- Death benefit - in order to provide cash to their children after the last death of a retiree and their spouse.

Thus in future retirees will be able to receive an income that is a combination of:-

- Immediate lifetime pension

- Deferred lifetime pensions
- Both of which provide income for the remainder of a person's lifetime plus potentially some cash and death benefit (depending on the features of the pension affected).

- The Age Pension

- Account Based Pension - which provides access to cash and a death benefit.

Not all assets should be used to purchase a RLP- maybe (say) 50% with the balance in an Account Based Pension, from which cash can be withdrawn for those unexpected needs for cash, or to purchase more RLP.

Some other Thoughts & Observations

A Yale study found that people who held positive views of their own ageing, such as might be fostered if their contributions were sought and valued in the workplace, lived on average 7.5 years longer in average than those with less positive outlooks.

The Schwarzenberg family, the owners of Český Krumlov Castle, In the Czech Republic, established a pension plan for their staff on 25.12.1765, but was abandoned after WWI when the Schwarzenberg's lost their revenue streams.

An earlier pension plan was established by the Presbyterian Church in Scotland in 1676 for the widows of ministers. It is possible these pensions were initially paid from current revenue. Note that the widows weren't given lump sums to invest.

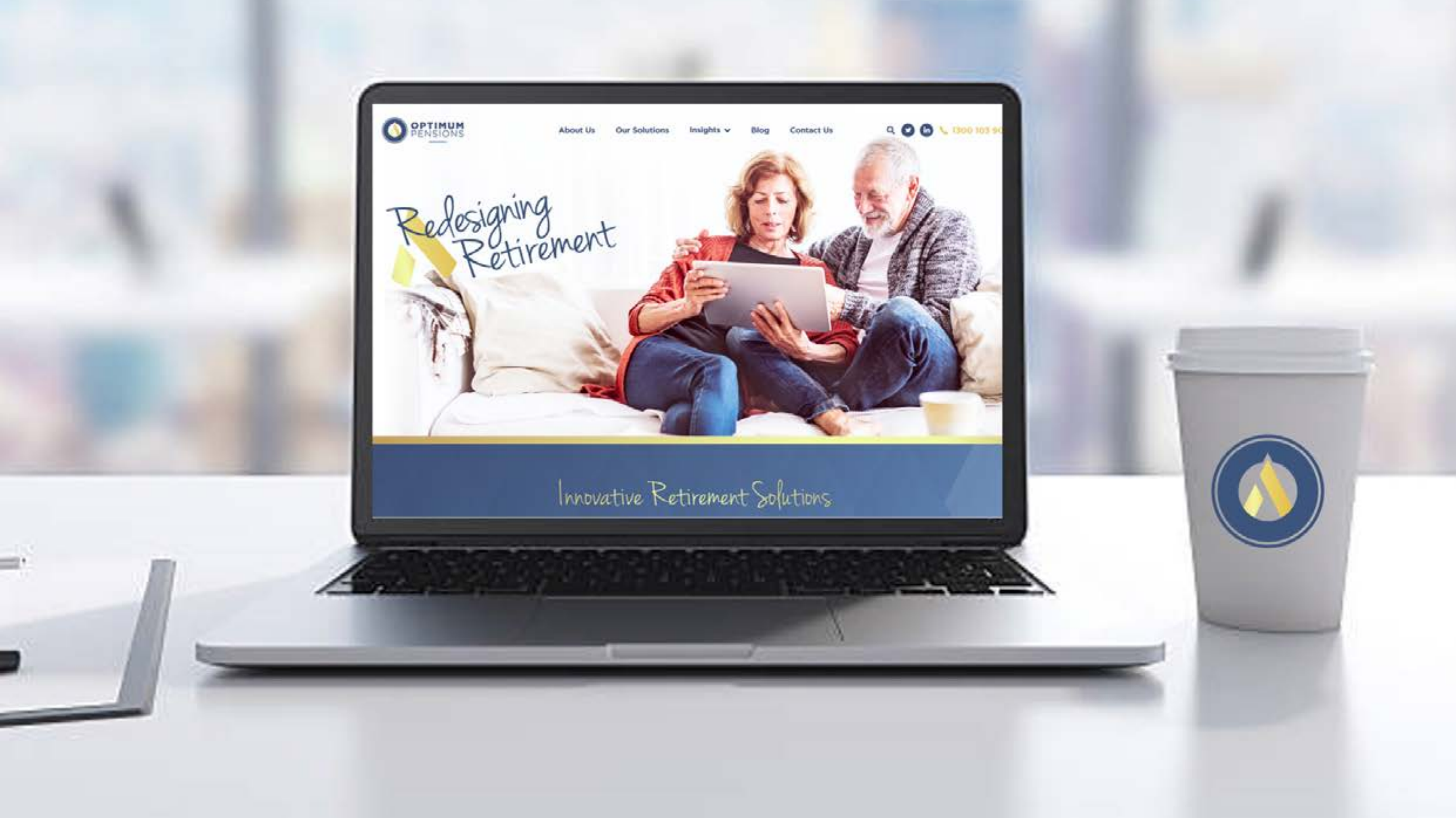
The Institute and Faculty of Actuaries in the United Kingdom has a fascinating medieval document which grants a pension on retirement. Roger of Rattlesden was rector of Cringleleford church near Norwich. In July 1251, he was granted a pension of 40 shillings a year for life by the Bishop of Norwich, “taking pity on his old age so that in his final days he is not forced to beg”.

When superannuation funds were established in British Commonwealth countries:- South Africa, Australia and New Zealand, these were pre-funded arrangements - apart from the government sector, which assumes that it can always fund these obligations, as it has taxation powers. The benefits were payable in lump sum form.

As there were a relatively much smaller number of older and retired workers in these colonies or countries, the mortality rates experienced would have fluctuated significantly, so that it would have been financially imprudent to pay lifetime pensions. Thus it was an accident of fate, not inspired logic that led to these countries paying lump sum retirement benefits. However Canada and New Zealand are now pension paying countries.

AUSTRALIA'S HISTORICAL PREFERENCE FOR LUMP SUMS

In Australia, the taxation system, before 1983, favored lump sums – as they were hardly taxed at all – taxed by including only 5% of the lump sum in taxable income, whereas pensions were fully taxable. Thus there was an additional very significant taxation advantage to receiving lump sums. While the taxation treatment of lump sums and pensions post real retirement is now almost the same, people still favour lump sums. However in Chile and other countries, lump sums are taxed in order to provide an incentive for people to effect pensions – which is strongly in the government's interests – else people might spend or give away their lump sums and not adequately plan for their financial future – so that they eventually fall back on government resources – paid for by other taxpayers – which seems inequitable.



FOR MORE INFORMATION

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