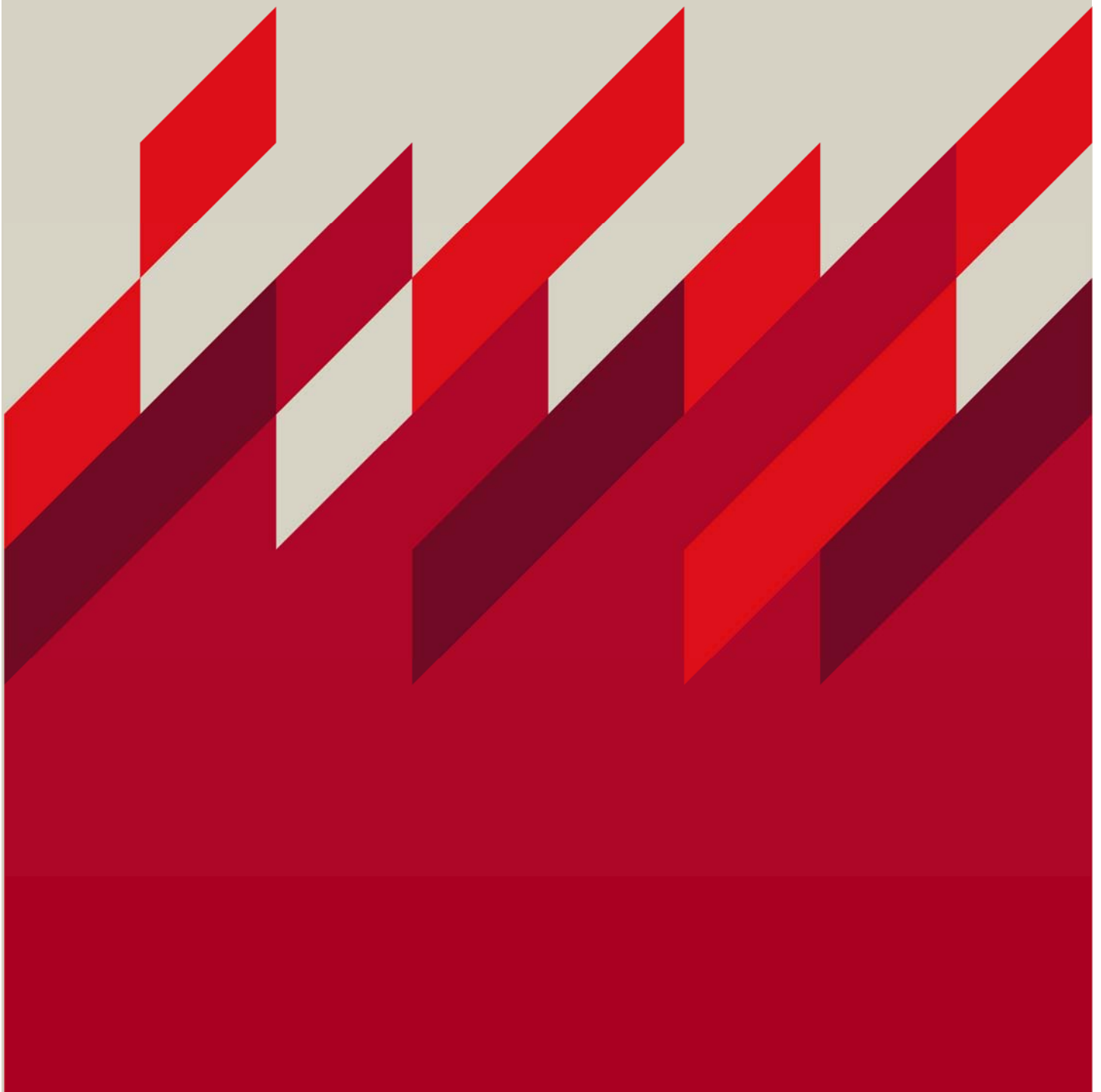




Protecting Retirement Incomes: A survey of Australian Products

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Anthony Vassallo, Lance Fisher and Geoffrey Kingston



Protecting retirement wealth: A survey of Australian products

Anthony Vassallo
Department of Economics
Macquarie University
0403 157 714, avas4401@gmail.com

Lance Fisher
Department of Economics
Macquarie University
98508480, lance.fisher@mq.edu.au

Geoffrey Kingston
Department of Economics
Macquarie University
98507063, geoff.kingston@mq.edu.au

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Abstract

We survey the long-term derivative instruments (warrants) offered by Australian institutions to elderly Australian investors. Our focus is on products other than plain-vanilla life annuities. There are currently four active products. They incorporate a strike price which is either constant or eligible for periodic upward resets. The guarantee terms vary in length from 5 years to the lifetime of a second person. The products typically have hybrid European-American features, as early exercise is typically permissible yet subject to penalties. Benefits are mostly lump-sum but can be income streams. Fees are typically expressed as a percentage of some combination of the initial investment and the current balance.

Retirement wealth is protected to the extent it has put-option features. The products offering these features can be described as variable annuities with guarantees. We survey the supply side of the Australian market. Retirees of middle means are the natural customers.^{xi} In 2017 the steepness of the taper rate of the Age Pension is set to double, so we can expect to see a rise in the demand for protected products. Another reason to survey Australian products is to come up with suggestions for a Comprehensive Income Product for Retirement. At present the centerpiece of the emerging designs for CIPRs is longevity insurance in the form of deferred lifetime annuities.^{xii} However, future CIPR designs may seek to incorporate some downside protection against market risk.

Retirement wealth products

We are interested in retirement products that guarantee against investment and longevity risks using structured products such as derivatives. Variable annuities with guarantees meet these requirements. The term variable annuity covers a number of different products. Ledlie *et al.* (2008) define it “as a unit-linked or managed fund vehicle which offers optional guarantee benefits as a choice for the customer.” VAs have been popular in overseas markets since these products were introduced in the United States in the 1970s. According to Fung *et al.* (2013), “VAs are insurance contracts which allow policyholders to invest their retirement savings in the mutual funds. They are attractive because policyholders’ retirement savings can have certain exposure to the equity market whereas benefits are based on the performance of the underlying funds, enhanced by certain tax advantages. In addition to the VA, policyholders can elect different types of guarantee to protect their retirement savings by paying various amounts of guarantee fees.” These guarantees can be considered as long-dated put options sold to the policyholder. The main types of guarantees are as follows:

- Guaranteed Minimum Death Benefits - GMDBs guarantee a return of the principal invested upon the death of the policyholder. This product pays out the maximum of the principal invested and the amount of the underlying unit-linked account.
- Guaranteed Minimum Accumulation Benefits - GMABs guarantee that on specified policy anniversaries, the value of the contract will be the maximum of the principal invested and the amount of the underlying unit-linked account.
- Guaranteed Minimum Income Benefits – GMIBs guarantee that on the annuitisation date, a minimum income stream such as a life annuity is paid out. The guaranteed benefit may be fixed at the start of the policy, or it could be expressed as a percentage of the premiums invested, or some function of the amount of the underlying unit-linked account at the annuitisation date.
- Guaranteed Minimum Withdrawal Benefits - GMWBs guarantees that a minimum income stream can be regularly withdrawn for a fixed term. For example, the guarantee might provide annual withdrawals of 5% of the principal invested for 20 years. There are also

Lifetime Guaranteed Minimum Withdrawal Benefits where the guarantee term is the lifetime of the policyholder.

Note that some of the guarantees may include provisions such as ratchets (reset of the benefit base to equal the growth of the underlying unit-linked account at policy anniversaries) and roll-ups (guaranteeing the principal invested will grow at a specified minimum roll-up rate).

Matterson (2015) briefly lists the guaranteed solutions market in Australia as at December 2014. See Table 1.

TABLE 1: Guaranteed products

Organisation	Product	Active?
AMP	North	Yes
BT Financial Group	Wrap Capital Protection	Yes
Challenger	Liquid Lifetime	Yes
MetLife	RetireSafe	No
MLC	Investment Protection	Yes
OnePath	Money 4 Life	No

There are other products mentioned by Matterson (2015) that offer some protection (but not account-balance protection) such as the Mercer LifeTime Plus (Pooled Longevity Solution) product.

Active products

Details of the active products in Table 1 are as follows:

1. North, AMP

There are two types of guaranteed products: Protected Investment guarantee, and Protected Growth guarantee.

The North Investment guarantee Product Disclosure Statement states the guarantee applies to investments (net of upfront fees, less any withdrawal, advice fees or taxes paid) at the end of a nominated term. By terminating prior to the end of the selected term, the investment is subject to ordinary market risk, although the Protected Growth guarantee entitles the policyholder to a portion of the guarantee benefit, which varies depending on how far you is into the policy term. You can select 6 or 8 year terms for the Protected Investment guarantee product and 10 or 20 year terms for Protected Growth guarantee product.

There is an additional feature in these products that locks in growth in the account value^{xiii} as a result of positive investment performance if the account value is greater than the protected balance^{xiv}. For the Protected Investment guarantee product the growth is locked in every two years, whilst it is locked in annually for the Protected Growth guarantee product.

The account value is subject to market risk and will decrease as a result of the following factors:

- Negative market performance on the underlying investments
- Management costs associated with the North account such as:
 - Administration fee
 - Investment costs
 - Performance fees
 - Investment switching fee
- Guarantee fees
- Advice fees
- Buy/sell costs
- Withdrawals^{xv}

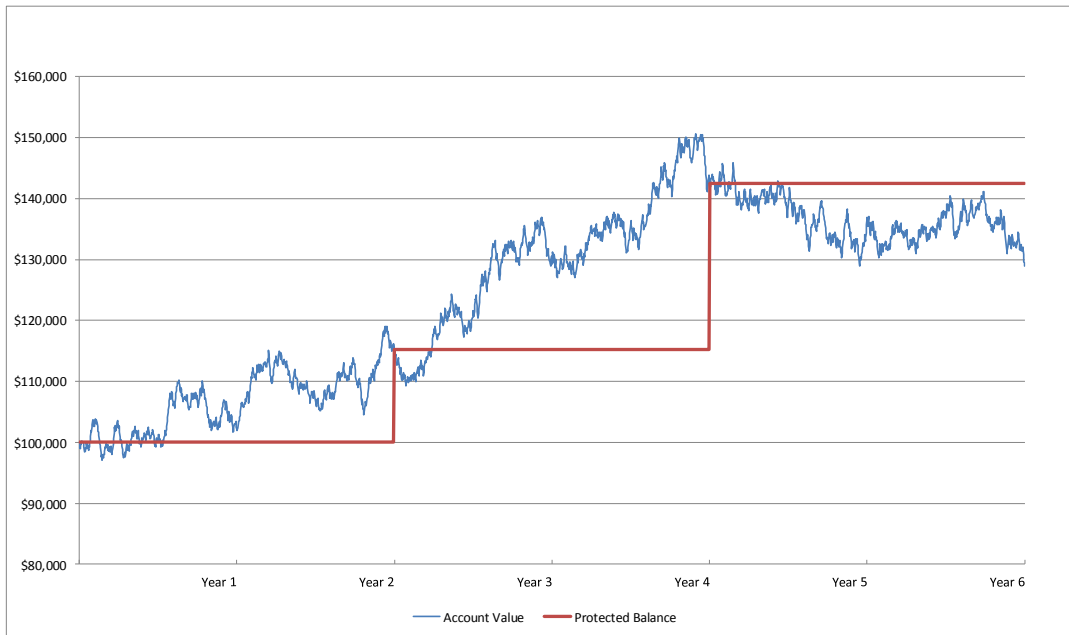
The protected balance is not subject to market risk. This balance will decrease due to any withdrawals but it will not decrease in the event of:

- Negative market performance on the underlying investments
- Management costs associated with the North account such as:
 - Administration fee
 - Investment costs
 - Performance fees
 - Investment switching fee
- Guarantee fees
- Buy/sell costs

The total amount that you receive from these products at the end of the selected term will be at least equal to the protected balance.

Figure 1 illustrates the main features of the Protected Investment guarantee product.

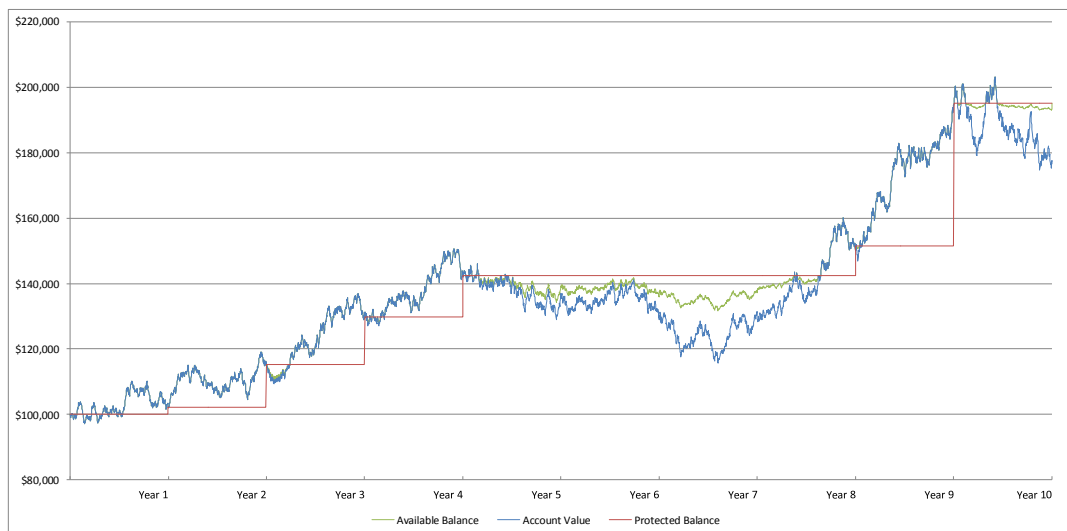
FIGURE 1: Protected Investment



The blue line indicates a simulation of the account value, while the red line illustrates the protected balance with the lock-in growth at years 2 and 4. Note that the account value fluctuates with investment performance. In this example, the initial contribution is \$100,000 and the selected term is 6 years. For this simulation, the policyholder will receive \$142,425 at the end of 6 years, even though the account value is only \$129,000.

Figure 2 illustrates the main features of the Protected Growth guarantee product.

FIGURE 2: Protected Growth



The green line represents the available balance, blue line indicates a simulation of the account value and the red line illustrates the protected balance with the lock-in growth at years 1,2,3,4,8 and 9. Note that the account value fluctuates with investment performance. In this example, the initial contribution is \$100,000 and the selected term is 10 years. For this simulation, the

policyholder will receive \$195,074 at the end of 10 years, even though the account value is only \$176,681. The available balance is the amount paid if the policy is terminated prior to the end of the chosen term. For example, the policy will pay out \$138,400 at the end of year 7, even though the account value is only \$129,007.

Who should consider this product? Like all the products under discussion, North offers investors a measure of protection against the double contingency of poor long-term returns to growth assets and a long life. North squares with theories of consumer behavior whereby people want a floor rate of consumption that ratchets upwards through time, in response to rises in individual or community wealth, North could also suit investors seeking to leave a significant estate. Like the bulk of the other active products, however, there is no direct protection against inflation risk. Depending on the term and investment strategy selected for the North products, the guarantee fee varies between 1.55% to 2.45% pa for the Protected Investment Guarantee and 0.8% to 1.85% pa for the Protected Growth Guarantee. For any additional investments made into North products, an additional fee up to 7% is payable.

Aligned with CIPR objectives? North does not offer full longevity insurance, which is not in the spirit of the CIPR concept. Moreover, CIPR thinking is at odds with bequest motives, as a deferred annuity requires an outlay in early retirement which depletes the resources available for an estate. By the same token North does offer partial longevity insurance, especially the Protected Growth variant.

2. Wrap Capital Protection, BT Financial Group

The aim of Wrap Capital Protection is to protect any investment in eligible managed funds, while still allowing one to benefit from growth when the chosen funds perform well. Assuming no withdrawals are made and all distributions are reinvested, the product is designed to ensure that at the end of the selected term, the amount of the investment is at least equal to the amount invested at the start of the protection. The term of the protection can vary approximately between 5 and 10 years.

Basically investments are parked into two funds: the Investment Fund and the Capital Protection Fund. The combined holdings in these two funds are referred to as the Protection Portfolio. There are options on what classes of investments are available in each fund. The basic protection is provided by redeeming, from time to time during the protection term, some of the holding on the Investment Fund and investing these holding into the Capital Protection Fund, and vice versa. This holding change is referred to as Rebalancing in the BT Capital Protection Fund Product Disclosure Statement. Rebalancing is triggered on the basis of a specified formula. In accordance with the Rebalancing formula, there are two factors that will likely lead to a rebalance:

- A significant change in the Investment Fund's performance. (The better the performance in the Investment Fund, the more funds invested in this fund), and
- The length of time remaining in the Protection Term. (The closer to the Protection Term, the more funds invested in the Capital Investment Fund.)

Note that in case of a severe and sudden fall in the unit price of the Investment Fund due to market movements, an extra layer of protection is provided (by Deutsche Bank) by way of a Protection Payment.

The protection value is referred to the Minimum Outcome. According to the BT Capital Protection Fund Product Disclosure Statement, "This the minimum dollar value that the Protection Contract is designed to ensure your Protection Portfolio is worth at the end of your Protection Term. When your protection is initially set up, your Minimum Outcome is equal to the amount of your investment, e.g. if you invest \$10,000 from your Wrap Platform Cash Account (also called Cash Account in this PDS), your Minimum Outcome is set at \$10,000. The Minimum Outcome may not keep up with inflation, but it can increase if your Protection Portfolio increases in value during the Protection Term." There are some circumstances when the Minimum Outcome may not be received or be reduced.

Automatic Growth Capture is feature of the product designed to ensure that the Minimum Outcome has an opportunity to grow during the protection term, if the Protection Portfolio increases in value. Generally, every 3 months during the protection term, the Minimum Outcome will be automatically increased to capture 50% of growth in value of the Protection Portfolio.

Who should consider this product? Wrap Capital Protection has a payoff profile which is broadly similar to North's. Wrap's greater frequency of resets might appeal to some investors. Wrap's reset feature is less generous, however. Less protection appears to be accompanied by lower fees. There is an Issuer fee of 0.5% pa and a protection acquisition fee of 0.7% pa of the value of each Protection Portfolio. In the event that a protection payment is made while there are unsettled units in the investment fund, there may be additional protection costs payable.

Aligned with CIPR objectives? Wrap Capital Protection and North have broadly similar payoff profiles, so our earlier comments apply.

3. Liquid Lifetime, Challenger

The Liquid Lifetime is a guaranteed annuity product sold by Challenger. For an initial investment, you can receive regular payments for the rest of their lifetime or for the rest of the

lifetime of a second person. This guaranteed annuity product creates a regular cash flow for life, regardless of how long you live or how investment markets perform. As Challenger guarantees the lifetime regular payments, it bears the market risk. There is flexibility to withdraw within the first 15 years with this product. Also, you can choose full or partial indexation of the regular payments so that the annuity can help one from the effects of inflation. A death benefit is paid in the first 15 years if there is no eligible reversionary^{xvi} nominated or surviving joint owner.^{xvii}

Who should consider this product? Liquid Lifetime has the most complete longevity insurance of all the active products. Moreover, a variant of this product offers inflation insurance. This product would also alleviate the cognitive problems an investor in late retirement might experience with managing lump-sum assets weighted substantially to growth assets. On the other hand, this product squares less well with bequest motives, although there is scope for nominating a death benefit. Moreover, given the absence of mandatory annuitisation in Australia, along with our means-tested Age Pension, an investor in Liquid Lifetime would need to consider the effects of adverse selection on the annuity loading, along with consequences of the means tests for access to a part Age Pension.^{xviii} Apart from the potential payment of advisor service fees, the Challenger product does not have explicit fees. Costs of providing the annuity payments are implicitly incorporated into the annuity product.

Aligned with CIPR objectives? Of all the active products, Liquid Lifetime is evidently the one most aligned with the thinking behind CIPRs.

4. Investment Protection, MLC

MLC offers two types of protection:^{xix}

- Protected Capital – provides capital protection over 10 or 20 years.
- Protected Income – provides income protection over 10 years, 20 years or for life.

No matter how the market moves, the minimum amount available at the end of the term with Protected Capital or the minimum amount of income available over the term with Protected Income is known with certainty.

For the Protected Capital product, the protected capital value^{xx} will:

- Increase in value on the anniversary date if the protected account balance is greater than the protected capital value. In this case, the protected capital value will equal the protected account balance.
- Remain at the current value if the protected account balance is lower than the protected capital value.

Note that during the selected term of the product, the protected capital value and the protected account value will decrease with any withdrawals or increase with any additional investments. There are optional extras available such as a death benefit and an additional investment benefit.

For the Protected Income product, the protected income base^{xxi} will:

- Increase in value on the anniversary date if the protected account balance is greater than the protected income base. In this case, the protected income base will equal the protected account balance.
- Remain at the current level if the protected account balance is lower than the protected income base.

Note that during the year, the protected income base and the protected account balance will decrease with any withdrawals that exceed the protected income payments^{xxii} or increase with any additional investments made in the super phase. A spouse benefit is an optional extra available with this product.

Figure 3 illustrates the main features of the Protected Capital product.

FIGURE 3: Protected Capital



The blue line indicates a simulation of the protected account balance, while the red line illustrates the protected capital value with the lock-in growth at years 2,3,4,8 and 9. Note that the protected

account balance fluctuates with investment performance. In this example, the initial contribution is \$100,000 and the selected term is 10 years. For this simulation, the policyholder will receive \$185,320 at the end of 10 years, even though the protected account balance is only \$167,847.

Figure 4 illustrates the main features of the Protected Income product.

FIGURE 4: Protected Income



The blue line indicates a simulation of the protected account balance, while the red line illustrates the protected income base with the lock-in growth at the end of year 1. Note that the protected account balance fluctuates with investment performance as well as decreasing as a result of the protected income payments and fees. In this example, the initial contribution is \$500,000 and the selected term is 20 years. For this simulation, the policyholder will receive \$25,000 (= 5% of \$500,000) in the first year and \$26,717 (= 5% of \$534,333) until the end of the policy term. The protected income base increased from \$500,000 to \$534,333 at the end of the first year due to good investment performance. After 17.75 years, the protected account balance has run out of funds but the protected income payments of \$26,717 continue to be paid to the policyholder for the remainder of the 20 year term.

Who should consider this product? The payoff profiles of MLC Investor Protection are broadly similar to those of North and Wrap. However, MLC Investor Protection offers comparatively long terms of protection. This feature would suit investors expecting to spend a long time in retirement. Lifelong income streams are an option. The protection fee varies between 0.4% to 1.75% pa for the Protected Capital option and 0.25% to 1.4% pa for the Protected Income option. The fees for the optional extras for the MLC product are: 0.2% pa for an additional investment benefit and 0.2% pa for a death benefit for the Protected Capital product; and 0.1%

pa for a spouse benefit for the Protected Income product with a term of 10 or 20 years. This fee increases to 0.6% pa if the term is for life.

Aligned with CIPR objectives? On the criterion of alignment with the thinking behind CIPRs, MLC Investor Protection ranks only behind Liquid Lifetime

Policy issues

Among the building blocks of the products surveyed here, lifetime annuities stand out as the asset class which is the most anemic by far. One weakness is the 15 per cent tax on the earnings of the statutory funds that back life annuities. Another is the absence of a requirement that part of your retirement wealth be annuitised. Finally, whereas Australia indexes the Age Pension to the maximum of wage and price rises, Switzerland indexes first-pillar benefits to the average of their rises.

The Financial System Inquiry (2014) recommended that the market for lifetime annuities be strengthened through “nudges” of the retirement benefits of disengaged members of superannuation funds. If you have failed to engage, your fund trustees would default part of your payout into a deferred lifetime annuity. But could this policy be at odds with the suitability rules governing product advice? The best advice may be simply to buy a principal residence, pay down debt on an existing residence, or upgrade it. The reason is of course that the means tests favour your principal residence.

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^{xi} Workers with labour-supply flexibility are the natural ultimate suppliers.

^{xii} Or deferred Group Self Annuitisation.

^{xiii} The account value is the current market value of the underlying investments.

^{xiv} The protected balance is the guaranteed amount. At the end of the specified term, if the protected balance is greater than the account value, the difference between the two amounts is added to the account value.

^{xv} Withdrawals are any funds you personally withdraw; along with tax payments; insurance premiums; and advice fee payments.

^{xvi} You can nominate a second person to receive regular payments for life after you die. Note that if the annuity is brought with money rolled over within the superannuation system, the reversionary must be your spouse (as defined by law).

^{xvii} For more details about this product, see the Challenger Guaranteed Annuity (Liquid Lifetime) Product Disclosure Statement. Note that CommInsure (a competitor) distributes this product, even though it offers its own annuity products.

^{xviii} Specifically, in early retirement the assets test could bind, whereas in late retirement the income test could bind.

^{xix} There are a number of investment options available with this product. See MLC MasterKey Super & Pension Fundamentals Product Disclosure Statement for more details.

^{xx} The protected capital value is the initial amount invested in the Protected Capital product.

^{xxi} The protected income base is the initial amount invested in the Protected Income product.

^{xxii} The protected income payment is the income you receive from the Protected Income product.