The AMBACHTSHEER Letter
Sustainable Pension Design • Effective Pension Management

June 2021

TRANSFORMING CAPITAL ACCUMULATION PLANS INTO LIFETIME INCOME PLANS:

FROM HOPE TO REALITY AT LAST

*"A **Lifetime Pension** provides you with the peace of mind of regular income payments for the rest of your life and for the life of your spouse if applicable."*

QSUPER Product Disclosure Statement
March 2021

*"The financial services industry has not addressed the lifetime income security problem people face as they retire. With the launch of our **Longevity Pension Fund**, that is no longer the case."*

Som Seif
FOUNDER and CEO, PURPOSE FINANCIAL
June 2021

From Hope to Reality

The need for DC pension plans and other retirement savings arrangements to offer cost-effective lifetime income decumulation 'back ends' has long been acknowledged by pension experts and financial planners. Why? Because without such an option, people will predictably reduce their post-work standard of living for fear of running out of money before they run out of life. Multiple studies confirm many pensioners skimp on living expenses during their retirement years, only to leave sizable unspent balances in their estates.

The standard life annuity offered by insurance companies does provide a life-long stream of income payments, but at a steep price. These annuities tend to have complicated conditions and riders, are subject to sales commissions, and offer low payouts as the insurer must set aside sufficient capital to make good on the guarantee. The ideal lifetime income option does not suffer from these shortcomings.

This *Letter* traces the long journey from the birth of the ideal lifetime income option to where it stands today. It is at last becoming a tangible choice for the millions of people who should be converting at least part of their accumulated retirement savings into a cost-effective lifetime income option that they understand and trust.

In the Beginning….

The documented origins of such an 'understand and trust' option go back to the *University of British Columbia Faculty Pension Plan* over five decades ago. It was called a *Variable Payment Life Annuity* (*VPLA* for short). Since 1967, retiring *UBC* faculty members have had two income-for-life payout choices in their *VPLA*. Choice #1 was based on retirement assets earning an assumed 7% return; in Choice #2 the return assumption was 4%. The 7% return choice would lead to a high starting payout rate, with payouts potentially flat over time or even declining if asset returns were to come in below 7%. Conversely, the 4% choice starts with a lower payout, with payouts potentially rising over time if asset returns were to exceed 4%.

Regardless of the payout choice, *UBC VPLA* retirement savings have been invested in the same balanced investment fund with a mix of equities, bonds, and real estate. Payouts are adjusted annually, based on actual return and mortality experience versus assumptions. Table 1 shows actual annual payout experience for a $500K *VPLA* in selected years over the 1996-2016 period for purchasers still alive in 2016. Note that while the average annual payout over the 20-year period is about the same for the two payout choices, the payout patterns differ. The 7% return choice predictably pays out more than the 4% choice in the first 10yrs…..while the roles reverse in the second 10yrs. This raises an interesting choice question: should one pattern be preferred to the other?

Table 1 Annual Payouts in Selected Years for a $500K *UBC VPLA* Purchase under Two Return Assumptions

	1996	2001	2003	2007	2009	2016	AVE
7%	$49K	$65K	$54K	$60K	$47K	$49K	$54K
4%	$41K	$56K	$50K	$66K	$53K	$67K	$55K

Source: The UBC Faculty Pension Plan

Regardless of how the 'rising or falling payout trend?' choice question is answered, a key take-away of the *UBC* experience is that a $500K *VPLA* purchase in 1996 had paid out an average of over $50K/yr. by 2016 to surviving participants with annual payments fluctuating in the +/- 10% range.[i]

The 50-Year Journey from *VPLA* to *Lifetime Pension*

Surprisingly, for decades, there were no successful efforts to duplicate the *UBC VPLA* experience either inside Canada, or in the larger world. A resurgence only surfaced in the last few years in Canada[ii], but more forcefully in Australia because of its massive shift to DC-based 'super' arrangements 30 years ago. That shift had led to the accumulation of large pools of retirement savings in its super funds, but with no lifetime income back-ends. A 2016 Australian Treasury report called for the super industry to find a solution to this problem. The resulting global search for viable lifetime income solutions eventually led the Australians to look at *UBC*'s 50-year *VPLA* experience.

Specifically, *QSuper*'s Brnic van Wyck and Ben Hillier had been working for years on the design for a new breed of retirement income product. They knew that a market-linked pooled vehicle could significantly increase retirement income efficiency, but struggled to find an income-adjustment methodology that would pass the double test of being both simple and compelling. When they knocked on the door of the *UBC Faculty Pension Plan* they knew they'd found the missing component they were looking for. After years of testing and refining their product for the Australian legal and tax environment, *QSuper* launched its *Lifetime Pension* option on March 1, 2021. Its information document states the *Lifetime Pension*'s key features to be:

- Lifetime payments with a spousal protection option open to purchasers between the ages of 60 to 80
- Starting annual payout rates range from 6.2% to 10.8% for singles depending on age, a bit less for couples taking out the joint-life option
- For example, the starting annual payment for a $500K purchase for a retiree aged 65 is $33,580, or $30,535 with spousal protection
- Payments are adjusted based on actual return and mortality experience, against a benchmark annual net return of 5% (i.e., after fees, costs, and taxes)
- Money-back protection up to the original purchase price
- Suitable low-fee balanced investment program designed to achieve or exceed the 5% benchmark annual return (prior returns averaged over 9% in the last 10-years)
- *QSuper*-provided guidance and support

Despite the launch being understatedly 'soft', the *Lifetime Pension* product has already attracted over 120 purchasers between the ages of 60 and 80, investing over $30M, in amounts ranging from under $50K to over $1M, which amounted to an average 50% of the purchasers' accumulated retirement savings balances. This middle ground is exactly where *QSuper*'s decision guidance tools intend to nudge its retirees – providing a nice balance between higher income for life and flexible access to capital.

Lifetime Income for the Masses

Parallel to the unfolding *UBC*-to-*QSuper* story, Canadian financial services entrepreneur Som Seif had sold his ETF-innovation firm *Claymore* to *Blackrock* in 2012. He founded *Purpose Financial* in 2013 to carry on the quest to bring financial innovation to the masses at a reasonable price. By then, the lifetime income problem facing millions of retirement income savers had become increasingly visible. With most of these retirement income savers not members of a registered pension plan, would it be possible to offer them a lifetime income solution through the more flexible mutual fund rather than the more restrictive pension fund channel?

Today, the definitive answer to that question is 'yes', with the launch of the *Longevity Pension Fund* (*LPF*) by *Purpose Financial* in June of this year. Two challenges had to be addressed to get to this point:

1. *LPF* design: how to turn a *LPF* purchase into a lifetime income stream? The size and duration of that stream is driven by three factors: the initial purchase amount, the investment return on that amount, and the purchaser's life expectancy. The key to making that stream last a lifetime for individual participants is through longevity risk-pooling. That means inserting an effective transfer mechanism that moves capital from those who die short of their life expectancy to those who live beyond it. *LPF*'s transfer mechanism has been tested by a major actuarial consulting firm and was found to maintain lifetime income levels for unit holders in 91% of the scenarios tested.

2. *LPF* regulation: the regulation of new financial products is ideally driven by striking balanced tradeoffs between assessments of their 'public good' potential on one hand, and the risk of some kind of market failure on the other. Innovation is often stymied by the latter possibility receiving greater weight than the former. To its credit, the *Ontario Securities Commission* (*OSC*) studied the *LPF* application for registration carefully and not only approved it, but also championed its registration approvals in Canada's other provinces.

Its information document states the *LPF*'s key features are:

- There are one accumulation and four decumulation options. The accumulation option for investors under age 65 helps them save for retirement, and automatically converts those savings into the first decumulation option once age 65 is reached. The four decumulation options are separated by entry ages of the investors and initial payout rates: 65-67 -> 6.15%, 68-70 -> 6.50%, 71-73 -> 6.90%, and 74-76 -> 7.40%. For example, the initial annual payout for a 65-year-old investing $500K would be $30,750, which is 6.15% of $500K
- These initial payouts are based on a conservative 3.75% return assumption. Payments are designed to increase over time, but not guaranteed to do so
- Payments are adjusted through time based on actual return and mortality experience
- Money-back protection up to the original purchase price
- Suitable low-fee investment program designed to achieve or exceed the projected annual net return of 3.75%[iii]
- *Purpose*-provided guidance and support

It will be interesting to see how the millions of Canadians above the age of 60 with their $billions in accumulated retirement savings respond to the new *Longevity Pension Fund*.[iv] Longer term, it will be interesting to see the global market potential for the mutualization of lifetime pension income.

Understanding the Economics of Longevity Risk Pooling

With the launch of the two new lifetime income vehicles described in this *Letter*, the timing of a third event could not have been better. It is the recent publication by the *CFA Institute Research Foundation* of a 24-page study titled "**Tontines: A Practitioner's Guide to Mortality-Pooled Investments**" by Richard Fullmer. On the history side, he traces the beginning of mortality risk-pooling ventures back to the 17th Century. In the beginning they were funding vehicles for kings in need of money to wage war on each other. With the passage of time, their use broadened….as did their misuse through fraud and other nefarious practices.

While the history side of the study is interesting, it is its technical side that will prove to be most useful today. Why? Because for the power of longevity risk pooling mechanisms to be broadly appreciated as fair risk mitigation tools, their essence needs to be broadly understood. That means understanding the fair reallocation of longevity credits to the pool survivors, and that the reallocation depends on two things: 1. The size of a survivor's balance, and 2. The probability that survivor will die in the next observation period. The higher the probability, the greater the longevity credit share allocated.

Although maybe not intended, a strong communication message of the study was not to use terms like 'tontine' or 'mortality-pooled investments'. They sound both technical and scary. Far better to use friendly terms like 'lifetime pension', 'money-back protection', 'longevity credits', and the provision of 'guidance and support'.

In Conclusion

The launch of *QSuper*'s *Lifetime Pension* and *Purpose Financial*'s *Longevity Pension Fund* mark the beginning of a new chapter in the provision of lifetime income options to millions of retirement income savers around the world. Both organizations are to be congratulated for leading the way.

Keith Ambachtsheer

Endnotes:

i. *Note the outsized payout drop between 2007 and 2009 due to the Global Financial Crisis.*
ii. *It did not help that Canadian authorities actually banned the startup of new VPLAs in Canada 1988 for reasons never made totally clear. Due to pressure from a Canadian Pension Coalition, the Federal Government promised to introduce new VPLA regulations in its 2019 Budget statement. As of this writing, those regulations have yet to see the light of day.*
iii. *The management fee for the LPF is 0.6% of assets. An additional 0.5% is added if the investment is made through the advisor channel.*
iv. *Full disclosure, I have been an advisor to QSuper in their search for the right lifetime income model, as well as to Purpose Financial prior to the launch of the LPF, and am now a member of its LPF Advisory Committee.*

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