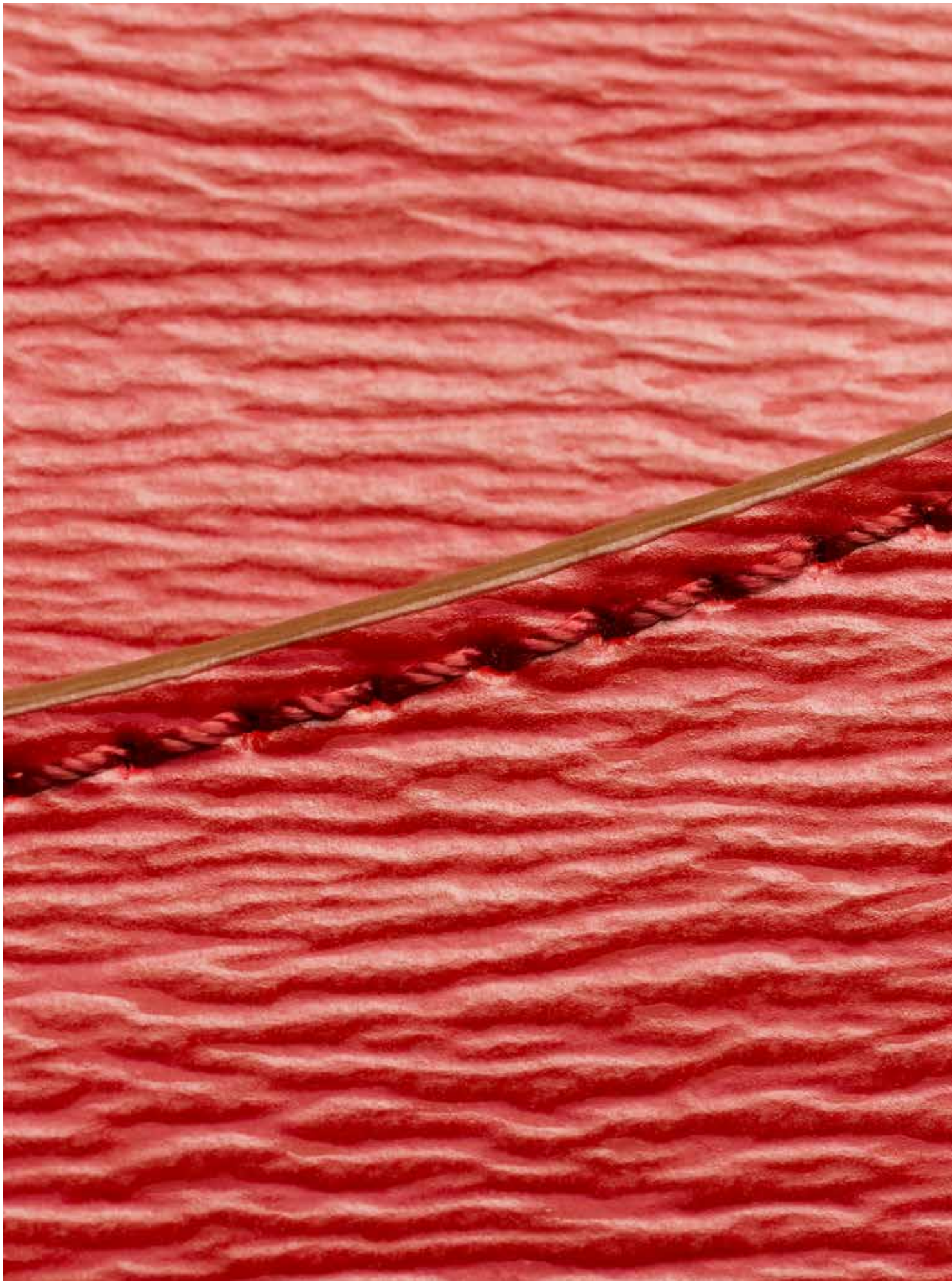
Thinking Ahead Institute

Lifetime income – the DC system's missing design feature



Lifetime income – the DC system's missing design feature

Contents

DC working group

This document has been written by the Thinking Ahead Group 2.0 (Bob Collie) following the research and discussion conducted by the Thinking Ahead Institute's working group on enhancing defined contribution practice (the DC working group). The author is extremely grateful to the members of the working group for their input and guidance but stresses that the author alone is responsible for any errors of omission or commission in this paper.

While the key objective of the group is to present to Thinking Ahead Institute members best practice principles for DC plans and how these could be more widely adopted, a secondary objective is to positively influence the investment industry outside the membership. We hope this paper serves both purposes.

The members of this working group are as follows:

- Alistair Byrne, State Street Global Advisors (UK)
- Brnic van Wyk, QSuper (Australia)
- Jaco van der Walt, FirstRand Group (South Africa)
- Jordi Jofra, Pensions Caixa 30 (Spain)
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- Tim Kohn, Dimensional Fund Advisors (US)
- Will Sandbrook, NEST (UK)
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- Nick Callil, Willis Towers Watson (Australia)

Part 1: a problem of insurance, not of optimization

The missing design feature

Something is missing from the defined contribution (DC) system.

If DC is meant to be a retirement system, then it should provide income that supports participants throughout retirement. However, retirement systems do not come into existence fully formed; they begin with fairly simple design features and evolve over time. In its earliest days, the DC system was a savings (or accumulation) system, primarily a supplement to the defined benefit system. Managing the payout phase was not a priority. Several decades on, the system has matured. The absence of this feature cannot be overlooked any longer.

In this paper we will describe what we believe to be the required steps to resolve this situation. But first, let's make sure we understand where the problem really lies.

An income stream to last for twenty years.... or fifty?

When a DC plan participant retires, they move from the accumulation phase into the payout phase, and this introduces an additional unknown into the pension management equation: we do not know how long an individual will live.

This is a bigger challenge for the DC system than it was for the defined benefit (DB) system. DB is a pooled system, so the uncertainty associated with longevity revolves around how long the average participant lives. That's something that we can be reasonably confident about. In contrast, DC is focused on the individual[1]. At the point of retirement, a DC plan participant might expect on average to live for perhaps twenty or twenty-five years[2]. But around that average there is a considerable range of uncertainty, and any given individual might really be looking forward to thirty, forty, or even fifty years of retirement. That longevity upside creates a financial planning challenge.

This planning challenge cannot be met with investment tools alone. Any drawdown strategy that pays out more than the earned investment return each year will eventually run out of money. The shape of the tail of the longevity distribution creates a situation in which a very long life is an eventuality that has a low probability but a high impact; exactly the type of situation where insurance generally makes sense. Investment is a key component of the post-retirement phase, just as it is pre-retirement, but investment strategy alone is ill-suited to dealing with a situation in which we may need income for twenty years and we may need it for fifty.

Collie (2015) compared the uncertainty associated with an unknown lifespan to the more familiar uncertainty associated with unknown investment returns (see sidebar). This found that, at the point of retirement, longevity uncertainty can be roughly equated to the uncertainty associated with fixed income investment. However, longevity risk grows with time and becomes the dominant form of risk as retirees age.

"Investment strategy alone is ill-suited to dealing with a situation in which we may need income for twenty years and we may need it for fifty."

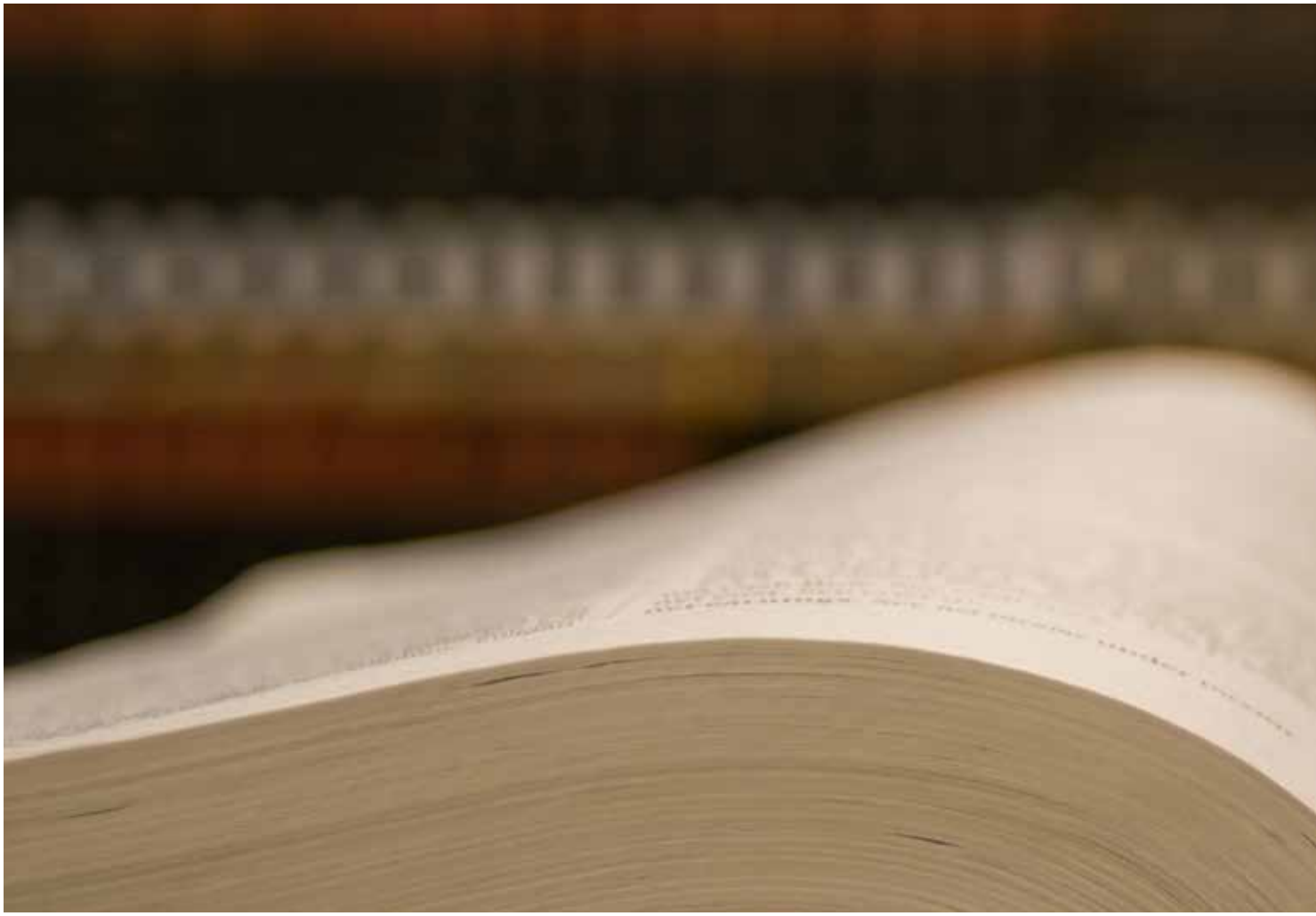
How big is longevity risk?

Collie (2015) compares two hypothetical worlds: (a) a world in which longevity experience is completely known in advance but investment returns are uncertain and (b) a world in which investment returns are completely known in advance but longevity is uncertain.

This comparison implies that investment risk is the larger of the two risks at younger ages, while longevity risk is dominant at advanced ages. At typical retirement ages, the risk associated with longevity can be approximately equated to the risk associated with an investment strategy entirely invested in fixed income securities.

[1] Some forms of collective DC incorporate longevity pooling.

[2] In the US, for example, a 65-year-old female retiring in 2014 had an average life expectancy of 23.8 years, according to the Society of Actuaries' RP-2014 table.



The traditional answer: annuitization

Traditional economic theory found an answer to this question a long time ago: annuitization.

The logic behind that view was captured by Yaari (1965), using the idea of 'actuarial notes'. This logic can be paraphrased as follows:

Suppose you have a choice between receiving $1,000 one year from now, payable whether you are alive then or not, or receiving a slightly increased payment – perhaps $1,010 – that is only paid in the event that you are still alive at that time[3]. If you have no bequest motive, and place no value on payments received after you have died, then you should choose the latter option.

The same logic can be extended to apply to a series of future payments. A retiree may, for example, have enough accumulated savings to support an income stream of $1,000 a year for many years. If each of those future payments is made contingent on survival, then the income stream might be increased substantially (see sidebar)[4]. If we assume that payments made after death are worth nothing, this exchange represents an increase in value.

Academic enthusiasm for annuitization[5] has, however, not been shared by the general population. Around the world, retirees have tended to show only a limited appetite for immediate annuities, giving rise to the idea of the "annuity puzzle".

[3] The difference is known as a mortality credit.

[4] If each future payment is exchanged in the way described, it would create an increasing income stream – perhaps $1,010, $1,021, $1,033 etc. An extra step would be needed to convert this to a flat income stream.

[5] It would be wrong to imply that this enthusiasm is unconstrained. Milevsky (1998) for example finds that annuities are more valuable for older individuals, and that "it makes very little sense for consumers under the age of 75-80 to voluntarily annuitize".

The value and mechanics of pooling longevity risk

Mitchell, Poterba, and Warshawsky (1997) explore the pricing of immediate annuities and variations over time in this pricing relative to actuarial fair value. They find that "individuals should be prepared to give up substantial fractions of their wealth" in order to buy annuities, with such purchases being utility-enhancing in the case of a 65-year-old individual even if priced "between 30% and 46%" below fair value. The value of annuitization varies substantially, however, depending on the prevailing rate of interest, as well as on expected mortality experience.

One of the primary benefits of insurance is that mortality experience can be pooled. The risk to an insurance company lies in the aggregate experience of their total insured base, not in any one individual's experience. The probability of the overall experience of a group significantly deviating from expectation is much lower than the probability of an individual's experience doing so.

Annuities are not the only way to pool longevity risk. An older, and purer, form of longevity pooling is the tontine. The underlying concept here is for a group of individuals to pool their rights to a future income stream, with each payment being shared among those still alive when it is paid. The history of the tontine[6] is long and colorful, even though many of the more lurid tales are apocryphal. It remains a useful concept today as an illustration that the mechanics of longevity pooling are, at heart, fairly simple.

[6] This is told, for example, in Milevsky (2015).

The case for longevity tail insurance

We believe that the best way forward for the DC system involves reframing the question.

The traditional economic approach treated this as a question of optimization. We would suggest that it is better considered as an insurance problem: specifically, insurance against the possibility of living an unexpectedly long life[7].

For an individual who buys an annuity, the decision has most impact if they turn out either to live significantly longer than the average or to live significantly less long. In either case, Yaari's analysis points to the purchase having been worthwhile. In the event of a very long life, the annuity ensures that income does not run out; this is its most appealing feature. In the event of a short life, traditional analysis sees a small extra income in the first year as a better outcome than even a substantial sum left to the estate; this approach optimizes lifetime income and places no value on bequests.

In practice, the absence of residual value in the event of a very short life is generally regarded as a drawback for the annuity, not an advantage. What's more, the possibility of an unexpectedly short life is not the reason that we are considering retirement income solutions in the first place. So the maximisation of income by giving up residual value in the event of early death is a non-solution to a non-problem. We are not considering this question because we want to maximize the expected value of some utility function[8], we're doing it to avoid a specific undesirable outcome. It's the longevity tail – the possibility of living an unexpectedly long life – that is the problem. This is why we argue that this is really a longevity tail insurance question.

A more detailed exploration of the reasons that immediate annuities have proved less popular than traditional economics would suggest they should be is provided in the appendix.

Taking this perspective, the traditional annuity is one vehicle for insuring the longevity tail, but there are others.

The advanced life deferred annuity (ALDA)[9], for example, provides income only at the longevity tail. So it is just the part of the whole-of-life annuity that we have argued is of most interest. An ALDA ties up less capital and retains greater flexibility than traditional annuitization.

The ALDA is just one example of longevity tail insurance. We could mention, too, a wide variety of other concepts ranging from the tontine (discussed in a sidebar above) to managed withdrawal strategies. But we do not want to repeat history and simply create an "ALDA puzzle" or a "tontine puzzle" to go along with the annuity puzzle. So rather than considering specific products in detail, we will turn next to what is needed in order to move past the puzzle toward the solution.

"It's the longevity tail – the possibility of living an unexpectedly long life – that is the problem. This is why we argue that this is really a longevity tail insurance question."

[7] Moshe Milevsky has pointed out that this form of insurance is unusual in that the insured party hopes to collect on it. This contrasts with most other forms of insurance, which we typically hope not to collect on.

[8] Although we argue here against a process of optimization, utility functions can be valuable for the broad testing of different approaches and for providing insights into the nature of the retirement planning challenge. In this regard, we would highlight, for example, work that has been done on the Member's Default Utility Function.

[9] The US's Qualified Longevity Annuity Contract (QLAC), which originated in tax rule changes in 2014, is an example of this type of annuity.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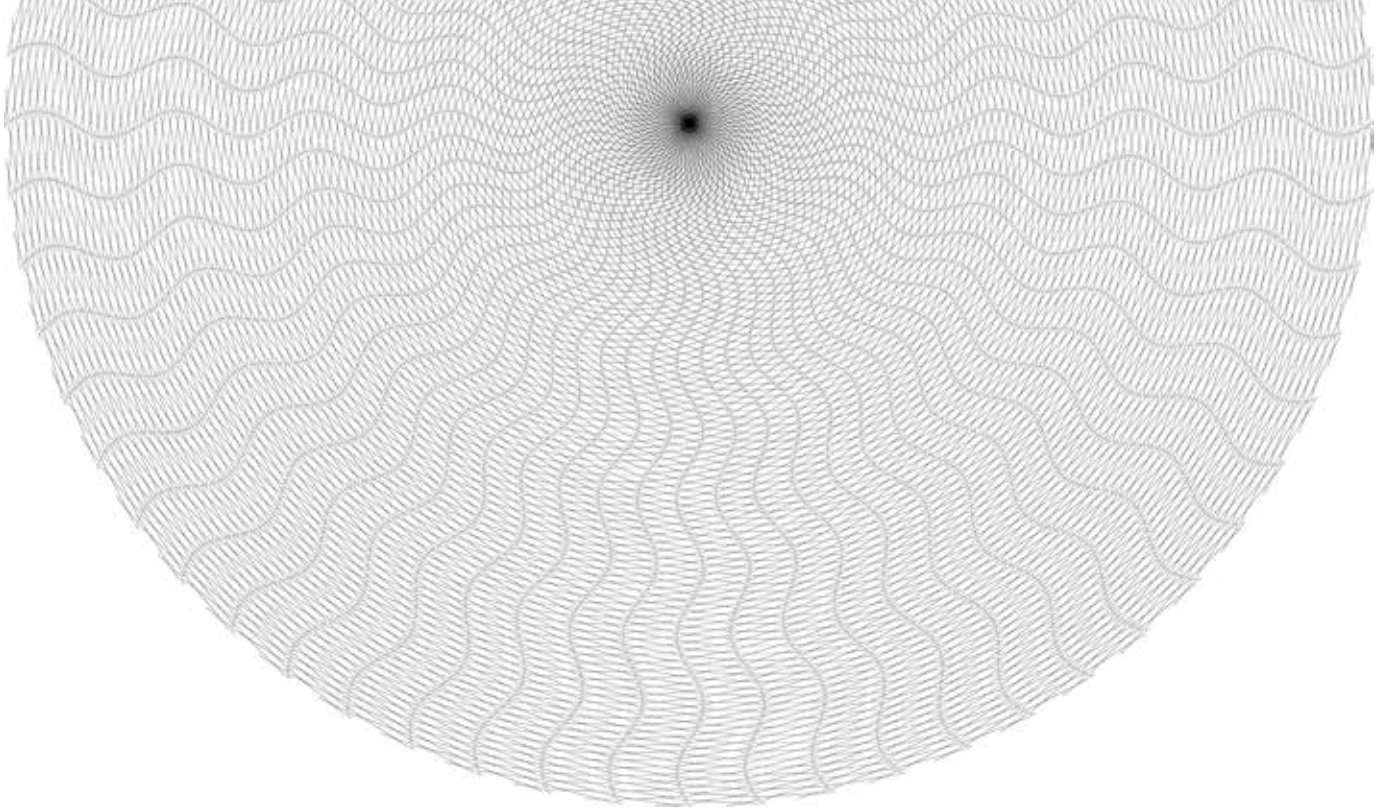

Part 2: a way forward

A subject in the spotlight around the world

The DC system is currently ineffective at converting account balances into lifetime income. As the system continues to mature, this ineffectiveness becomes ever more problematic. One potential solution – the immediate annuity – has been widely available in a number of markets for many years but, as outlined above, demand has proved less robust than supply. Indeed, the UK's experience implies not merely a lack of appetite but an active dislike for annuities on the part of most retirees[10].

At an event in London in June 2018, we asked a cross-section of leading DC professionals from around the globe (representing large plan sponsors, asset managers and platforms) for their opinions on this subject. Their responses (discussed in more detail in the sidebar) point to a consensus within the DC community that the longevity tail insurance question needs to be addressed, but perhaps not on how to do so.

Over time, post-retirement considerations have become increasingly important, even during the accumulation phase. In part, this is because the system has grown: in 1998, DC was about half the size of DB globally, but by 2018 the two systems were roughly equivalent in size[11]. It is also because the passage of time means that an increasing number of people are now reaching retirement with DC as their primary or sole retirement savings.

So this question is increasingly in the spotlight. Recognition of the need for a solution has led to initiatives such as the Australian government's proposed retirement income framework[12], a retirement outcomes review by the UK Financial Conduct Authority (FCA)[13], and various pieces of proposed legislation in the US[14].

We have argued above that finding a more effective post-retirement solution begins with a reframing of the question. Specifically, we have advocated a focus on how to manage longevity tail risk, i.e. providing insurance against the risk of an unexpectedly long life.

It is important to understand the barriers to widespread adoption that any potential solution will face, however. We will turn next to these, under three general headings: demand considerations, supply considerations, and context considerations.

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[10] Until 2011, it was compulsory for retirees to annuitize at least 75% of their DC account balance by the age of 75. Changes in 2011 and 2015 removed this requirement.

[11] Source: Global pension assets study 2018, Thinking Ahead Institute. This study covers 22 markets and over 90% of global pension assets. The balance between DB and DC varied significantly between major markets, ranging from Australia's 87% DC through the US's 60% DC to Canada and Japan where DC was only 5% and 4% respectively of total pension assets.

[12] See, for example, https://static.treasury.gov.au/uploads/sites/1/2018/05/c2018-t285219-position-paper-1.pdf.

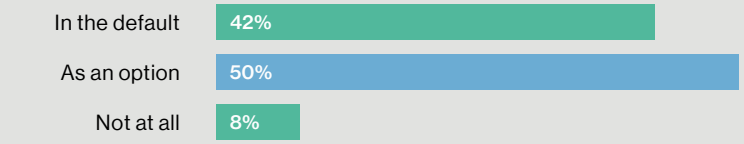
[13] Details of the status of this review can be found at https://www.fca.org.uk/firms/pensions-and-retirement-income.

[14] For example, the Retirement Enhancement and Savings Act proposed a safe harbor for employers in connection with the selection of annuity providers. The broader topic of lifetime income is under active consideration by the ERISA Advisory Council as part of its 2018 agenda.

"The DC system is currently ineffective at converting account balances into lifetime income. As the system continues to mature, this ineffectiveness becomes ever more problematic."

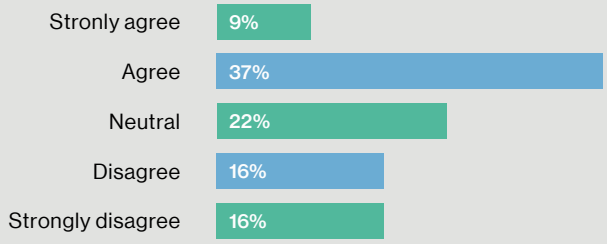
Responses to audience polling at the Thinking Ahead Institute DC Summit, June 2018

A fit-for-purpose DC product MUST include a form of longevity protection:



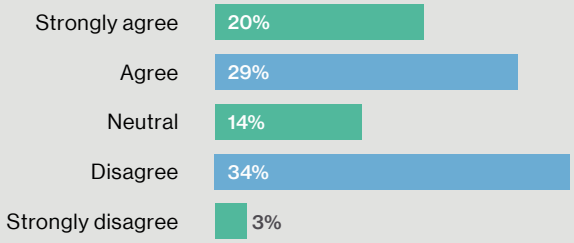
The great majority of respondents supported the idea that longevity protection is a required feature of the DC system. There was not a clear preference regarding where this feature should fit into the choice architecture (i.e. whether it should be a default element or not).

The UK's freedom of choice is a good policy:

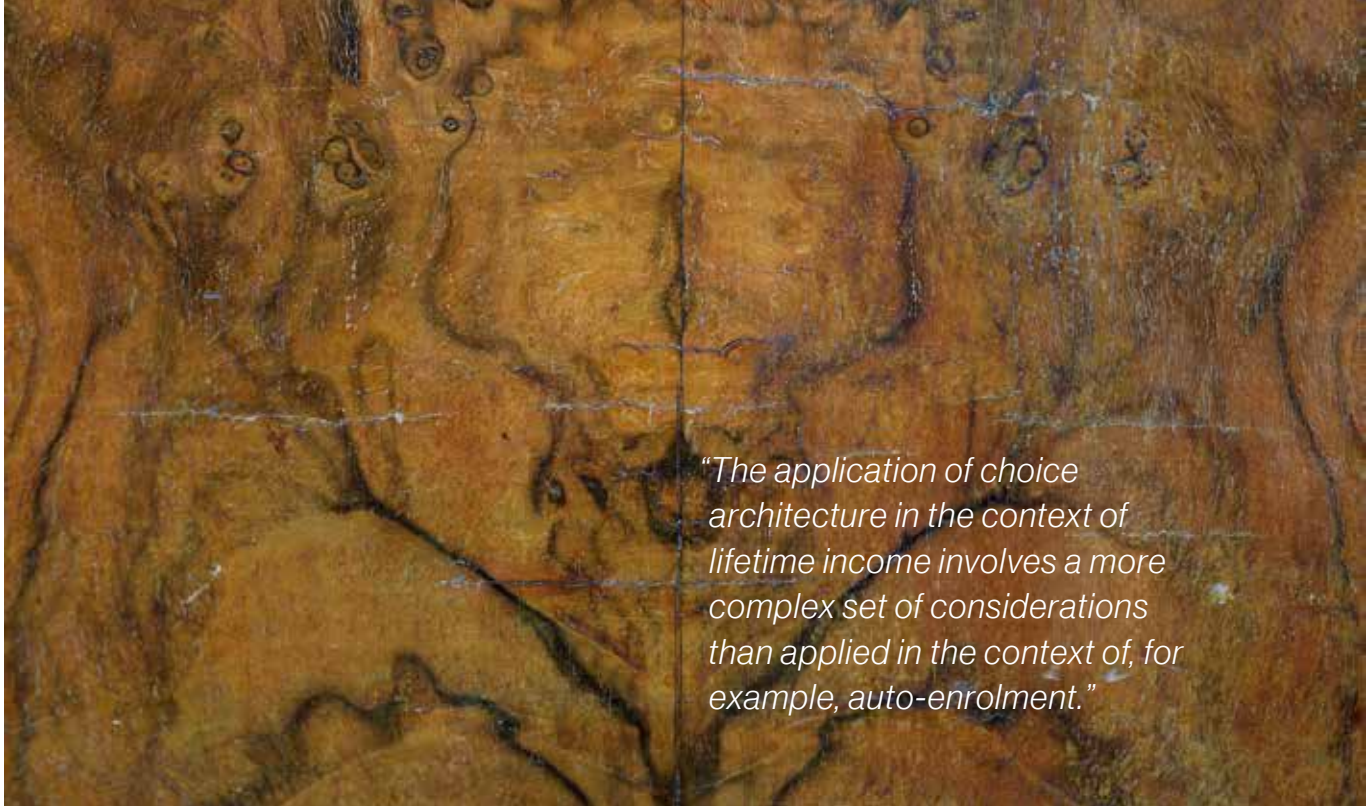


The policy referred to here is one that removed a previous requirement that DC plan participants in the UK either purchase an annuity or put in place a drawdown strategy. The responses reveal a tension between the desire to allow individuals control over their own money and the view that the policy was one that supported the best interests of most plan participants.

Without a burning platform we will not make progress to DC 2.0



The question refers the distinction between a tax-efficient workplace savings vehicle (DC 1.0) and a post-retirement income provision vehicle (DC 2.0). Roughly half of respondents felt that progress would be dependent on the occurrence of a crisis or some other clear external catalyst.



"The application of choice architecture in the context of lifetime income involves a more complex set of considerations than applied in the context of, for example, auto-enrolment."

Demand considerations

The lack of demand for lifetime income solutions is, on the surface, strange. Uncertainty around how long an individual will live makes retirement planning very difficult. The possibility of cognitive decline in later years means that retirees should prefer to take care of late-life planning while they still have the energy and capacity to do so.

Bundling all of a retiree's needs – investment strategy, drawdown strategy and longevity tail insurance – into a single planning exercise can be overwhelming. Even though the approach taken to each of these elements needs be integrated, it can be helpful to isolate the specific question of the longevity tail. Narrowing the focus allows the exploration of targeted solutions. Unbundling this aspect of the challenge allows a wider range of solutions to be considered, with a better chance of resonating with retirees. In particular, the creation of a clearer link between need being met (insurance against a longer-than-expected life) and the proposed solution (whatever the form it takes) may serve to stimulate demand.

Choice architecture, most notably the design of default pathways, plays an important role in driving demand. Care is needed here. The application of choice architecture in the context of lifetime income involves a more complex set of considerations than applied in the context of, for example, auto-enrolment.

The objectives of DC plan participants vary, and the variation is larger in the post-retirement period than it is during the accumulation phase. The FCA, for example, has suggested that there are at least three quite different objectives that a retiree may have: lifetime income; short-term spending; saving/bequest. We have focused in this paper on the first of these, which is a reflection of the central role that DC now plays in the wider retirement system. But while DC has become the primary source of retirement provision for many, the system does not operate in isolation. The level of state pension provision varies significantly from country to country, and individuals' circumstances and needs vary, so a crude application of choice architecture may be inappropriate.

Hence, the DC system needs to incorporate longevity tail insurance, but it is not necessarily appropriate to impose it on every participant.

Part of the answer to the challenge of choice architecture may lie in better use of technology. Today's technology offers new possibilities for implementing a more deliberate choice architecture. Technology can also play a role in energizing demand by supporting greater engagement and a superior service model.

In summary, demand for lifetime income solutions has been anaemic in the past. It could be strengthened through a more explicit focus on longevity tail insurance, through thoughtful choice architecture, and through the application of new technologies.

Supply considerations

The financial services industry is generally quick to supply products for which it senses demand. But, as we've just observed, demand is anaemic. We believe that innovation in the supply of longevity tail insurance solutions begins with a clearer definition of the currently unmet need.

Isolating the longevity tail and articulating the need in this specific area could be a valuable step in stimulating demand. This approach has the advantage of supporting and building on the existing market for investment and drawdown solutions. Existing approaches can be supplemented by the addition of longevity tail insurance, and would not need to be reinvented in order to meet this need.

There are significant questions around the details of product design. At what age is the longevity tail deemed to begin? How to deal with joint- and single-life options? Portability? Inflation-linking? Some of these features can prove very expensive in practice.

For an insurance company, offering tail insurance rather than whole-of-life insurance creates additional considerations around reinvestment, greater exposure to possible improvements in population longevity and reserving requirements[15].

The question of volume is central to any analysis of supply. If the market is to be viable and to thrive, size matters. A larger market allows more effective pooling of risk, greater competition, more competitive pricing, and wider product choice for consumers.

Volume also has an effect on the pricing of any form of longevity insurance because of adverse selection. The smaller the market, the more the mortality experience is likely to differ from that of the general population, and the higher the price of the insurance needs to be.

As is the case on the demand side, technology may be able to play a valuable role in supporting supply, specifically through enabling distribution and supporting customer engagement.

All of these questions must be looked at in the context of the institutions through which DC services are provided. Historically, workplace DC coverage has been employer-based. That is changing. This change is most obvious in Australia, where industry funds and master trusts have largely displaced single employer funds. Master trusts have grown rapidly in the UK since the introduction of auto-enrolment in 2012. And in the US, open multiple employer plans (open MEPs) are increasingly seen as having a key role to play in extending system coverage[16]. Each of these structures transfers roles and responsibilities from the employer to the platform provider.

This transformation of the institutional landscape has implications for our analysis. Platforms must compete with one another in a way that employer-based DC plans do not. They have a greater incentive to be proactive in improving the solutions they offer. To the extent that longevity tail insurance is recognized as being a current weakness within the system, it represents an opportunity for the leading platforms to develop an edge.

There are a number of reasons, then, to suppose that supply will respond if the right demand conditions can be created. Central to this issue is the role played by default options, without which it may not be possible to generate sufficient volume.

[15] These are explored in more detail in Laughlin (2013).

[16] Open MEPs are in a strange regulatory limbo at present. Development of the sector depends on greater clarity around the fiduciary responsibility of employers, and other technical issues. Legislation addressing these matters has been proposed on a number of occasions and, at the time of writing, the situation is fast-changing.

Context considerations

Other issues, beyond those specifically relating to supply and demand, also affect the potential market for longevity tail insurance.

One is the question of social norms and general expectations. Annuities have historically been relatively common (albeit unloved) in the UK, less so in the US, and almost unheard of in Australia. The extent to which other approaches to longevity insurance will be able to gain traction may likewise vary across markets. Not every market may end up preferring the same solution.

A particularly noteworthy concern, especially in the US context, is that of potential fiduciary liability. A highly litigious environment has left fiduciaries unwilling to take action – even action they perceive to be in participants' best interest – unless they are confident that they will not be deemed liable in the event of a poor outcome. There is a strong incentive not to deviate from the herd. This has resulted, for example, in a myopic focus on fees, rather than value, and can discourage innovation.

This creates a barrier to change, because it makes employers less willing to step up and incorporate longevity tail insurance solutions into their plan defaults. It also points to an obvious solution: a safe harbor or other regulatory catalyst of some sort.

In the next section, we explore what form that regulatory catalyst might take.

"Well-targeted regulatory intervention shapes plan design, provides an endorsement for action, redefines expectations and changes the perceived norms."

A way forward

As an illustration of the power of legislation in removing roadblocks, we can look to the situation of the US market prior to 2006 regarding the investment of the assets of plan participants who did not select a preferred strategy. At that time, many fiduciaries felt obliged to use a very low risk default option, because they wanted to avoid the possibility of loss. Although offering the preservation of capital, this investment strategy did not, in most cases, serve the best long-term interests of participants. Participant inertia meant that most did not opt out of the default and into more appropriate strategies. Even though the problem was widely-understood and better investment strategies were known to be available, change required a catalyst.

In that instance, the required catalyst came in the form of a safe harbor created by the Pension Protection Act of 2006 (PPA)[17]. Since then, target date funds[18] have become the dominant form of investment default strategy in that country.

As well as the direct impact of dealing with the area of concern, well-targeted regulatory intervention shapes plan design, provides an endorsement for action, redefines expectations and changes the perceived norms.

Such an intervention could serve as a necessary spur to both demand and supply of longevity tail insurance. Getting the design of such an intervention right, however, is not straightforward.

A particularly thorny issue lies in hitting the right point on the spectrum between enabling legislation and mandates. At one end of the spectrum, legislation could in theory require that all pensions be delivered as lifetime income. At the other end of the spectrum would be legislation that simply removes known barriers[19]. Between those extremes are varying degrees of encouragement that can be built in to choice architecture, the design of default structures and so on: strong defaults with opt-out choice (rather than compulsion) is an approach that has much to commend it.

[17] The safe harbor in that instance was relief from fiduciary liability for investment outcomes, provided specific conditions are met, including investment in one of a list of clearly-defined qualified default approaches.

[18] Target date funds are based on an asset allocation glide path with a risk profile designed to be appropriate for a cohort of individuals expecting to retire in a particular year. Target date funds were one of the qualified defaults included in the PPA safe harbor.

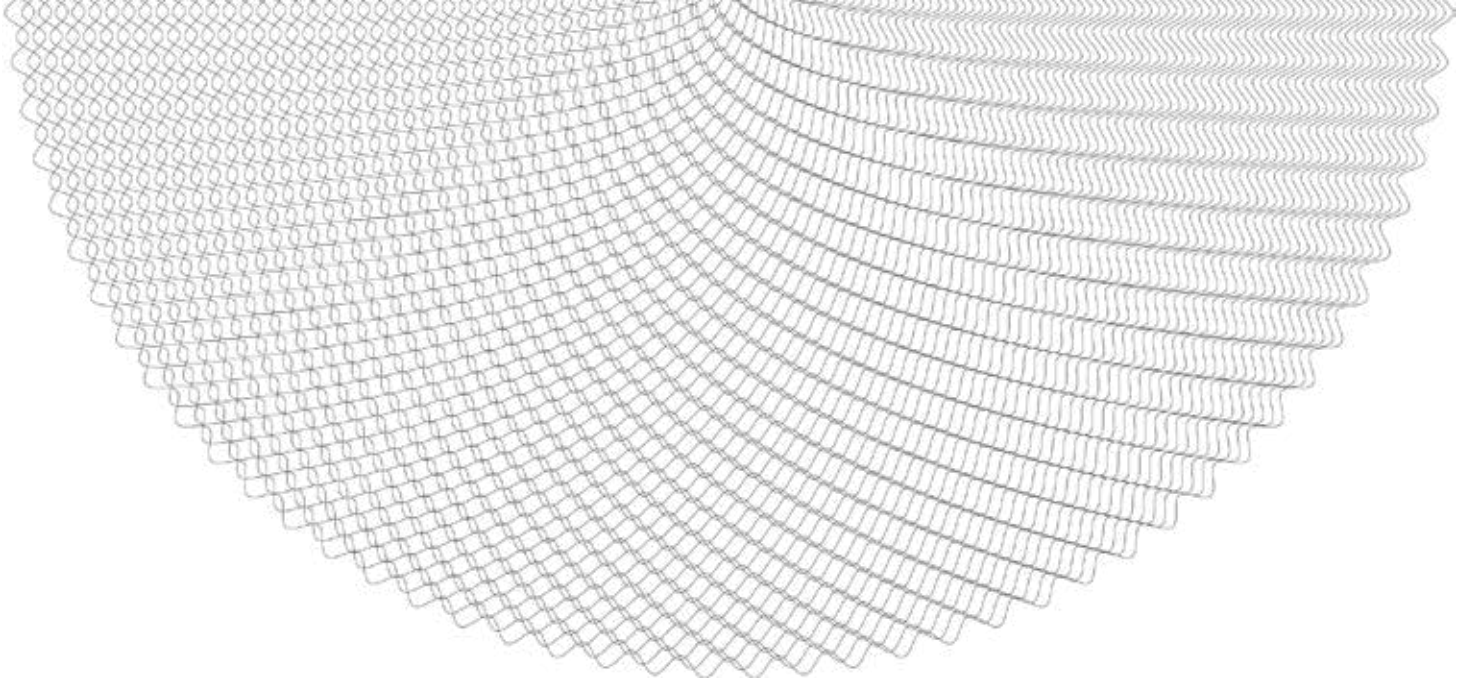
[19] Current proposals in the US to create a safe harbor with regard to the selection of annuity providers would be an example of the latter.

However, the exact form that regulatory intervention would ideally take will almost certainly vary from jurisdiction to jurisdiction. This is because circumstances differ between markets; for example, the extent of other forms of retirement income (i.e. social security and other first tier provision[20]) varies greatly between countries. Hence, we will not attempt to specify exactly what form legislative intervention ought to take. We would, however, highlight the following points:

- Retirement income provision is the main purpose of the DC system, but that does not mean that is the exclusive objective of every account. This is especially true for smaller accounts, or where the account is a supplemental, rather than primary, retirement savings vehicle.
- As we have argued throughout this paper, the key to more effective retirement income provision lies in longevity tail insurance.
- Enabling legislation can be just as effective as a mandate. The PPA, for example, did not oblige fiduciaries to invest in a particular way, but rather removed a disincentive from doing so. Similarly, it may be more appropriate to seek to create the conditions for a viable and competitive longevity tail insurance market than to mandate its use. This is perhaps all the more important given that there are many possible forms that longevity tail insurance might take, and that individual retirement goals vary.
- However, a widespread increase in the use of longevity tail insurance seems unlikely unless it becomes part of the default mechanism for a significant number of plan participants.
- The use of new technologies within the choice architecture may enable more effective member engagement, leading to improved customisation of approaches.

Care is clearly needed in the design of any proposed regulatory intervention. Nonetheless, such an intervention – whether in the form of a safe harbor, other regulation, or perhaps even tax policy – represents the most likely catalyst for change in this area.

[20] For a typology of the various tiers of pension provision, see https://www.oecd-ilibrary.org/finance-and-investment/oecd-pensions-at-a-glance-2005/pension-system-typology_pension_glance-2005-3-en



Parting thoughts: DC 2.0, and DC 3.0

We stated at the outset that something is missing from the global DC system.

The ineffectiveness of the DC system in the provision of lifetime income has become an increasingly obvious shortcoming as the system has matured[21]. A new version, DC 2.0, is needed in order to provide retirees with income that will support them throughout retirement.

In this paper, we have outlined the following steps toward filling that gap:

- Understand the nature of the problem: the need is for insurance against an unexpectedly long life, not for optimization. Focusing on the critical need serves as the basis for creating stronger demand.
- Targeted regulatory intervention can act as a catalyst for change by removing specific roadblocks, shaping plan design and redefining expectations and norms.
- Demand conditions can be improved through the use of choice architecture. Because retiree circumstances and goals vary significantly, creating the right choice architecture will require care, with member engagement and the use of technology key considerations.
- Broad product development and innovation in responding to these needs should be encouraged.
- The move away from employer-based provision to platforms may prove to be a significant change in the dynamics of the potential supply of longevity tail insurance, leading to greater competition and innovation in the search for solutions.

Targeted regulatory intervention, in conjunction with addressing demand issues through choice architecture and the use of technology, offers the promise of a new market to meet this systemic need.

The global DC system is a $20trillion system, and even though this extension of its role is overdue, that will not be the end of the development story. In due course, from DC 2.0 will grow DC 3.0. This is likely to be a system that goes beyond DC alone, an integrated whole-of-life approach, hyper-customized and drawing in the total balance sheet.

But, first, the DC system of today has work to do.

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[21] See "Proposing a stronger DC purpose" (2017) Thinking Ahead Institute

Appendix: why annuities are less popular than traditional economics would suggest they should be.

Immediate annuities have proved less popular in practice than traditional economics would suggest they should.

We consider below some of the reasons that have been put forward for why individuals have not chosen to annuitize.

Framing and the clarity of goals

Individuals who live an unexpectedly long time gain from the annuity's pooling of longevity risk. But there are also losers: those whose lives prove unexpectedly short. So, while the question "what if I live a long time?" encourages annuitization, there is also an evil twin question: "what if I die much sooner than the average?" Traditional economic theory, in its simplest form, dismisses that question by placing a value only on income received while alive, and none on any residual account value at death.

That this is a real concern in practice, however, is evidenced by product design features such as (in the case of immediate annuities) a minimum payout period or (in the case of deferred annuities) a return of premium in the event of death before the payout start date. By the classical logic of Yaari (1965), such features would not be as common as they are, since they are contradictory to the basic objective of annuitization, which is the maximization of income whilst alive.

It is possible to incorporate a bequest motive into traditional theory. However, this requires the adoption of a more complex utility function, including the articulation of the desired trade-off between lifetime income and bequests. And, in reality, the true motivation behind these features is often largely to do with management of the perception of loss in the event of early death, rather than the result of an explicit bequest motive.

Our suggested approach sidesteps these complications by narrowing the focus to the question of how to insure against an unexpectedly long life.

Counterparty risk and loss of control

For many, another significant concern with annuitization is the discomfort that comes with handing over substantially all of one's assets to an insurance company.

Counterparty risk is one source of this discomfort. Another is loss of flexibility in the amount of income to draw down each year, in access to savings for special purchases and in the ability to respond to financial shocks, such as unplanned health care expenses. Further, people may feel more in control of their financial future by holding wealth rather than by receiving income.

If we focus only on finding ways to insure against the longevity tail, then doing so may be possible using only a part of the total assets. This would help to mitigate some of these concerns.

Pricing and adverse selection

Furthermore, annuities are often perceived as offering poor value for money.

In part this is due to adverse selection. Adverse selection occurs because individuals who know themselves to be in poor health tend not to buy annuities. Thus, the longevity expectation of annuity buyers is different from that of the general population, and this needs to be reflected in the pricing. In essence, whenever longevity experience is being pooled, you want to be in as broad a pool as possible, and ideally not one that is self-selected to be only those in the best health. The smaller the pool of people buying annuities, the better the average health they are probably in.

Interest rates are another important factor in annuity pricing. The cost of providing a lifetime income is much higher when interest rates are low. This, too, can contribute to a sense that annuities offer poor value, even if their pricing were to be set at the actuarially fair level.

In addition, annuity prices diverge from actuarial fair value due to the need for insurance companies to finance the required risk reserves, and to cover costs and margins. This divergence can be – although need not necessarily be – substantial. Competition and economies of scale are two important factors in the fairness of pricing.

Pricing considerations around annuities, then, include not only value-for-money but also the perception of value-for-money. Reframing the challenge as one of insuring the longevity tail offers wider possibilities for managing each of these.

Limitations of reliance

Limitations of reliance – Thinking Ahead Group 2.0

This document has been written by members of the Thinking Ahead Group 2.0. Their role is to identify and develop new investment thinking and opportunities not naturally covered under mainstream research. They seek to encourage new ways of seeing the investment environment in ways that add value to our clients.

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The Thinking Ahead Institute

The Thinking Ahead Institute seeks collaboration and change in the investment industry for the benefit of savers.

It was established by Tim Hodgson and Roger Urwin, who have dedicated large parts of their careers to advocating and implementing positive investment industry change. Hodgson and Urwin co-founded the Thinking Ahead Group, an independent research team in Willis Towers Watson in 2012 to challenge the status quo in investment and identify solutions to tomorrow's problems.

What does the Thinking Ahead Institute stand for?

- Belief in the value and power of thought leadership to create positive investment industry change
- Finding and connecting people from all corners of the investment industry and harnessing their ideas
- Using those ideas for the benefit of the end investor.

The membership comprises asset owners and asset managers and we are open to including membership of service providers from other parts of the industry. The Thinking Ahead Institute provides four main areas for collaboration and idea generation:

- Belief in the value and power of thought leadership to create positive investment industry change
- Working groups, drawn from the membership, and focused on priorities areas of the research agenda
- Global roundtable meetings
- One-to-one meetings with senior members of the Institute.

About the Thinking Ahead Institute

The Thinking Ahead Institute seeks to bring together the world's major investment organisations to be at the forefront of improving the industry for the benefit of the end saver. Arising out of Willis Towers Watson's Thinking Ahead Group, formed in 2002 by Tim Hodgson and Roger Urwin, the Institute was established in January 2015 as a global not-for-profit group comprising asset owners, investment managers and service providers. Currently it has over 45 members with combined responsibility for over US$12 trillion.

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