LONGEVITY: BARELY DETECTABLE, BUT A TREMENDOUS RISK

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Longevity: Barely Detectable, But A Tremendous Risk

Risk management has been at the forefront of defined benefit pension fund management for almost 15 years. The financial crisis which took place shortly after the arrival of the new millennium prompted the whole industry to sit up and take notice. Overlooked in the list of risks facing plans was an unidentified risk. Longevity was always there, but never measured. Yet, it poses a tremendous risk. Benefits and Pensions Monitor Meeting & Events assembled an expert panel to examine this threat at its 'De-risking Pensions' session. Sponsored by Club Vita Canada and Aon Hewitt, it featured Ian Edelist, CEO of Club Vita Canada; Tom Ault, an associate partner at Aon Hewitt; and Kim Ozubko, a partner at Miller Thomson.

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Tom Ault, left, and Ian Edelist.

While pension funds have discussed risk management for years, much of the conversation has centred around investment and interest rate risk, says Ian Edelist, CEO of Club Vita Canada. Longevity risk management hasn't kept up.

It took two "perfect storms" and a financial crisis to get pension funds to turn their attention to economic risk. The perfect storm in 2001 "included poor equity returns, declining interest rates, and a bad economic environment for plan sponsors' main businesses. This was followed by, Part II, in 2004, and finally the great recession hit in 2008 and 2009. After three successive poundings to the funded status of pension plans, the people who managed them decided to do something about it," he says.

However, even when plan managers get a handle on that risk, they don't always think about the next biggest – longevity risk. Most people in the industry really understand that, given how pension plans are generally invested, financial risks can cause major stresses rather quickly. With longevity, the sense is that "next year, we're not all of a sudden going to find out that people are living five years longer than they were the year before. It doesn't work that way," says Edelist.

'DATA AVAILABILITY'

A key point, he says, is "data availability. Financial markets are volatile. Data is received every day about their movement, about equity and bond returns." With longevity, the risk moves slowly and while it shouldn't be hard to understand how long people are living and when certain groups of people are passing away, "we're not at that stage where we're collecting that kind of information readily yet."

He points to data from the UK. In the early '70s, the average age of death of a person who already survived to age 65 was 77. Fast forward another 40 years and it's 83. "That's a 50 per cent increase in the life expectancy past age 65 and viewed in those terms that's significant," he says. However, it was not until the late 1990s that UK professionals realized they had severely underestimated life expectancy improvements. With Canada in its infancy of understanding life expectancy improvement trends, it begins to explain why the UK is "10 years ahead of us when it comes to managing longevity risk."

When Edelist joined the industry in the early '90s, a mortality table called GAM83 – based on U.S. data – was used. The creation of newer mortality tables and improvement scales in the ensuing years, all based on U.S. data, increased liabilities each time they were adopted. It was not until 2014 that Canada had its first Canadian pensioner mortality study, conducted by the Canadian Institute of Actuaries (CIA). Most plans adopted the Canadian data by 2015, resulting in another jump in male liabilities of 10 per cent on average. These large jumps in liabilities are due to a lack of measurement – "we're not measuring frequently enough how longevity is changing." More frequent measurement will reduce the strains on pension plan managers, so that changes to assumptions should become a less stressful event.

"One of the things that the founder of Club Vita in the UK is adamant about is changing the conversation from describing a mortality assumption to talking about longevity risk," says Edelist. Under the old way of thinking, mortality is the actuary's problem.

The actuary sets the assumption and the plan sponsor or pension committee uses that assumption. "We basically use the same standard table for all pension and all post-retirement plans with some adjustment. We have similar confidence in how long people are living today, which is called the base rates in actuarial jargon, and how long we think people are going to live in the future makes up the mortality improvements. But none of that is really true in practice. Pension plans are the ones who bear the cost, not the actuaries of the plan. The actuary might get fired, so there may be a small cost there, but a change in cost is really borne by the pension plan."

Better understanding on how long people are living today with better data and better techniques is a great start. Where the risk comes in is predicting future longevity improvements. Nobody has a crystal ball, so. "that's really the uncertain part," he says.

RISK OF MIS-ESTIMATION

The risks need to be understood. Basis risk is about how a plan's experience compares to the standard industry table and how different those two experiences might be. A one-year life expectancy difference changes liabilities by about three to four per cent. There's also a risk of mis-estimation – "what if I got it wrong? How much you can get it wrong depends on how diverse your workforce population is." Finally, there is trend risk and this "is where you need a lot of information in order to understand where future mortality trends are going." It is a lot harder to reduce that risk which explains why sponsors may want to de-risk their plans.

Keeping up with trends in longevity improvements is difficult even with the data available. The 2014 CIA mortality study used about 10 years' worth of data. The limitations of the data included the number of lives available to study during the period, the lack of data on surviving spouses' mortality, and only a broad distinction of workers between public and private sector plans. The CIA study's conclusions are that people with high pensions in the public sector live four years longer on average than those with low pensions in the public sector. The data also shows that range is only two years in the private sector.

As for the future, there's a whole lot of science going on – universal vaccines, stem cell therapies, regenerative medicines – that may improve life expectancies in the future. "But then you've got all these counter-acting measures like the increase in obesity, bad air quality, and the fact that a lot of the historical Canadian improvements in longevity happened because people are not smoking as much as they used to. That's made itself into the data. So people are wondering, well if we've already taken that into the data, how much do these other factors counter-balance each other. We have some decent information about Canadian longevity, but it needs to be beefed up so that plan sponsors, administrators, and pension committees can make proper decisions on whether to de-risk their longevity and how to do so," says Edelist.

IMPROVEMENT UNCERTAINTY

For Tom Ault, an associate partner at Aon Hewitt, the key risk when it comes to de-risking longevity is improvement uncertainty. This is the "million, or even billion dollar question. Just like we don't know what the financial markets will do, we don't know what improvement uncertainty will be. We don't know what medical advances there will be, what medical disasters there will be." This is where most of the risk is and when it comes to insuring or de-risking longevity, this is the risk that should be focused on. A lot of data is needed to be able to analyze improvement trends. It is often based on population trends or population based data and these are really big data sets.

In concept, both economic and longevity risk have some similarities, in that "if they work against you, you have a loss in your pension plan. Loss in your pension plan likely means you have to make more contributions or the benefits in a defined contribution type pension plan aren't enough to pay for pensions for life. However, that's almost where the similarities between longevity risk and economic risk end," says Ault.

Longevity risk is different in that it is easy to miss the potential significance as it can creep up on you. For example, he says there may be a situation where there are 100 pensioners and 10 are expected to die. If only five die, that may be good news for the pensioners, but for a defined benefit pension plan, it is bad news. "What it actually means is as we move forward 10 years, 20 years, and every year, we're having five extra pensioners at the table, that five becomes 10, that 10 becomes 15, and that 15 becomes 20. Suddenly we're paying, over a 10-year period for example, 50 more pensioners than we expected to be paying," he says. Since the risk grows over time, no-one "really notices anything bad is happening and in 20 years, it can potentially have as a significant impact as economic risks."

And unlike economic risk where the economy can flip back and forth between good times and bad times, a pattern where pensioners are living longer than expected is likely to continue year after year. "So while longevity risk over short periods never really manifests itself as bad, over a longer term, it certainly can be as big and bad as economic risks," he says.

To de-risk longevity, there are several approaches.

There is longevity insurance or swaps. A longevity swap is not trying to do anything other than reduce the risk that people are living longer than expected. It is not for everybody. Even if looking to the UK, there have only been a limited number of transactions to date. There's going to be situations where it may make sense and there are going to be situations where it doesn't make sense, says Ault.

Annuity buy-ins or buy-outs are great risk eliminators, but could be considered the "sledgehammer of risk reduction" as they remove all risk in one go – buy-outs even more so than buy-ins. This is great in some situations, but not necessarily all, he says.

Buy-ins and buy-outs are purchases of an annuity (or annuities) with an insurance company so that the insurance company is responsible for paying the covered pensioners. However, payment streams work different between buy-ins and buy-outs. A buy-in is effectively an asset of the pension plan The pension plan pays the annuity premium and then there is a flow of payments from the insurance company to the pension plan to the retirees. The buy-out is very similar. In this case, the relationship is between the insurance company and

Kim Ozubko, a partner at Miller Thomson, says plan governance is the key issue when de-risking longevity.

the retirees. Effectively, what's happening is the pension plan is no longer responsible for the covered group of retirees.

DO-IT-YOURSELF BUY-IN

However, for the sophisticated plan sponsor, combining a liability driven investment strategy and longevity hedging strategy makes it possible to effectively create a do-it-yourself annuity buy-in, with all risks insured in the same way as an annuity buy-in, but with the risks separately considered, says Ault.

It seems unlikely that trying to do something only about longevity would be your first step to de-risking. "If you are looking at total risk reduction, and you have a quite simple and relatively small pension plan, then traditional settlement options (buying annuities) may be your prime solution. If you're large and or other settlement solutions aren't available to you or don't seem good value, then this is where a longevity only solution may become more viable," he says.

Longevity swaps aren't simple. They're not straightforward. They're a derivative "effectively, a very, very long derivative. So if you're not comfortable with derivatives to start with or don't really understand what derivatives are, entering a 30-year contract with an investment bank or insurance company, with a counter-party that's very sophisticated may not be your first step to de-risking," says Ault.

GOVERNANCE MODEL

Kim Ozubko, a partner in the Toronto, ON, office of Miller Thomson, says plan governance is the key issue. "As with any decision impacting a pension plan, whether or not you adopt a de-risking strategy or another strategy, it's really important to follow your pension plan governance model and to make sure you have the structures in place before choosing a strategy," she says. Having a "great governance model" in place and then putting it to the side and ignoring it, is not the point. It is important that "you record any decision you make as part of your de-risking strategy and that you regularly review and monitor that decision to ensure it still makes sense for your plan."

In choosing a strategy, she breaks down the governance process into three main categories – preliminary steps, the actual decision-making process, and then the implementation and review of that process.

The preliminary steps should be "pretty easy," she says. To start, there needs to be a governance model in place. Then a decision needs to be made about who the appropriate party is for approving whatever de-risking strategy is being considered. "Is it your board of directors, the entity that's charged with administering your plan, or has the authority been delegated to another committee – an investment committee or other sub-committee of the board? Make sure you have that decision-maker identified so that the right approvals can be undertaken," she says.

The need for third-party advice also needs to be determined. While a very qualified experienced board or committee can carry out this process, there may be a need for a consultant to assist in determining the de-risking strategy, if any, that might be right for a plan.

Since a contract is involved, a lawyer may be needed. "You're looking at a pretty formal legal document. Depending on the size of your organization, whether or not you have in-house counsel, it may be advisable to engage a third-party for legal advice as well," says Ozubko.

Plan documents need to be reviewed. Is the de-risking strategy permitted under the terms of your plan text, SIP&P, or trust or funding agreement? If not, do you need to amend these documents and are amendments even permissible?

In deciding which strategy is right for a plan, there are policies from OSFI, the federal pension regulator, and FSCO, the Ontario pension regulator. OSFI issued a policy in 2012 on buy-in annuity contracts and in 2014 on both longevity insurance and longevity swaps. In 2014, FSCO issued an investment guidance note on buy-in annuities for defined benefit plans. No other regulator has any formal policies. However, plans outside of the federal jurisdiction or Ontario would be well-advised to consider the OSFI and FSCO policies in deciding on a de-risking strategy, she says.

OSFI provides some perspectives on some of the risks. There is counter-party risk – the risk that the bank or the insurance company won't live up to their contractual obligations, OSFI suggests determining the extent of the counter-party risk by looking at what regulatory regime the counter-party is subject to and seeing if there are assets that are required to be held in respect of the contract.

OSFI also recommends looking at roll-over risk – the risk that occurs when a longevity risk hedging contract is entered into for a shorter period of time than the duration of the liabilities covered. It covers areas like what happens if a new contract is needed upon expiry or termination of the initial contract. These may be more expensive if people are living longer than was expected when the first contract was entered.

Plan administrators should also look at legal risk. This stems from the fact a complicated contract is involved. "You need to make sure you understand the terms of the contract. What are you agreeing to? What is the term of the contract? What are your obligations? What are the counter-party's obligations with respect to the contract? Again, if you don't understand it, get outside legal advice, ask your in-house counsel," she says.

Many of the factors to consider with a buy-in annuity are similar to a longevity risk hedging contract. These include the acceptability of the contract and whether the buy-in annuity is permissible under the terms of your plan, the SIP&P, and applicable legislation.

'KEY TAKE-AWAY'

A "key take-away" from the decision-making process, is that sponsors must make sure they record their decision. "One of my biggest pet peeves is to see minutes of board meetings or pension committee meetings where it simply says the board or the committee discussed the issue and decided on 'X.' That is of no help whatsoever. If your decision, your de-risking strategy, is challenged down the line, you need to have that information set out in the minutes.

"From a legal perspective, remember your obligations as plan administrator – do your due diligence, ask the questions, engage experts when necessary, and paper your decision. Once you've done all of that, it certainly goes a long way in supporting your fiduciary duties and acting in accordance with your standard of care," she says. BPM

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