Article

Understanding the impact of longevity

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Longevity risk is the largest liability risk facing most UK defined benefit pension schemes, but despite the ability to minimise it using longevity swaps, most of this risk is unhedged. If pensioners live for longer this could lead to a huge monetary impact – forcing pension schemes to delay buy-out or seek significant deficit contributions.

The monetary impact of longevity risk could be substantial

To understand the real-world impact that longevity risk could have, we considered a sample £1bn scheme aiming to achieve buy-out in 10 years. We assumed that after five years, its members' life expectancy would rise by two years.

Our analysis estimated that the scheme would need to find an extra £120m to meet its resulting funding shortfall. This compared with needing to generate an additional £30m in investment returns over the scheme's journey to buy-out if it implemented a longevity swap at the outset.

Liabilities in the UK pensions market are typically estimated at about £2 trillion, with published data on longevity hedging and insurance transactions suggesting that most of the associated longevity risk is unhedged. A rise in longevity expectations in line with our scenario would have huge implications across the market.

Large changes in life expectancy are possible

A rise in life expectancy of this magnitude is possible. Longevity expectations have fluctuated significantly over the past two decades, according to the Continuous Mortality Investigation (CMI) Projections Model.

It predicted material increases in the life expectancy of 65-year-olds in England and Wales in the early 2000s, which then fell back substantially. It projected in 2009 that a 65-year-old male would live for 23 and a half years, and a female about 26 years. In the most recent 2021 release, the CMI projected a life expectancy for 65-year-olds of about 22 years for males and 24 and a half years for females.

Trustees' focus will likely sharpen on longevity risk

Given such large moves in life expectancy, trustees may wish to consider the possibility that recent reductions in longevity expectations could be reversed as innovations in technology and healthcare drive meaningful improvements.

Taking into the account the potential impact on a scheme, and the ability to hedge this risk effectively and efficiently using a longevity swap, we expect longevity risk to be the subject of much sharper focus over the next decade.

Case study: the impact of longevity risk on a pension scheme

- Size of pension scheme: £1bn assets under management
- Funding status: 90% funded on a buy-out basis
- Time horizon: Targeting buy-out in 10 years
- Longevity shock: A 2-year increase in life expectancy for the pension member population that happens after five years
- Longevity swap: At inception, a risk fee of 3% pa (leading to £30m in additional contributions)
- Return assumption: Investment returns of gilts + 1.7% pa in all scenarios

Annual contributions	No longevity swap	With longevity swap
Longevity shock does not occur	Nil	£3m pa from outset
Longevity shock does occur	£24m pa (for last five years)	£3m pa from outset
Cumulative contributions	**No longevity swap**	**With longevity swap**
Longevity shock does not occur	Nil	£30m
Longevity shock does occur	£120m	£30m

Important information

Investment in any strategy involves a risk of loss which may partly be due to exchange rate fluctuations.