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Could longevity risk affect your DC investment strategy?

Since the Freedom and Choice pension reforms, we've moved from a world where most UK retirees bought an annuity, to one where many individuals choose income drawdown. In doing so, they not only bear the risk of changes in the value of their pension but also the uncertainty around how long they will live. This uncertainty over future lifespans is known as 'longevity risk'.

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Have you considered how long you could live?

Retirement outcome risk is affected by two key components: investment risk, reflecting the fact that future investment returns are uncertain, and longevity risk, reflecting that how long an investor will live for is uncertain. Longevity risk is often brushed under the carpet when it comes to giving advice or making strategic decisions. However, it is a very important component of retirement risk and has significant implications for investment and spending decisions.

Could your retirement savings run out?

The main objective of a DC investor taking income drawdown is typically a "life of income". They may also have other objectives, such as flexible spending and inheritance planning, but the main aim is to provide a high level of income for life; any money left behind is considered a bonus.

Our measure of the risk of a DC investor's pension fund running out early is called '**YEARS**', or **Y**ears **E**xpected **A**fter **R**etirement **S**avings. We use it to show how longevity risk can impact a DC investor's investment strategy and spending patterns.

YEARS is the expected number of years a pensioner is without an income because they have run out of money. We have calculated this by taking the average years without a pension under many future scenarios. A low number of YEARS is preferable to a high number of YEARS, as it implies a shorter expected period without an income.

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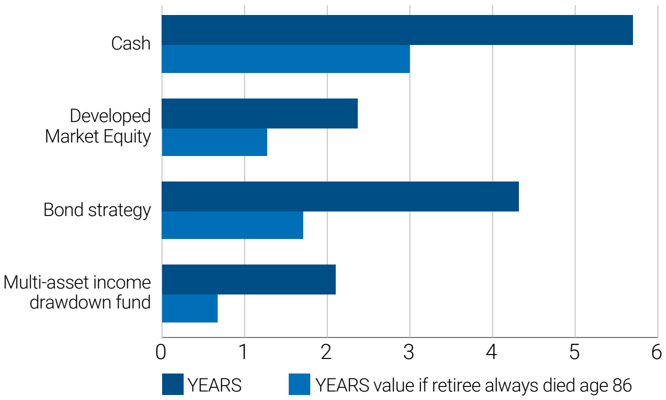
Choosing your investments

We consider four different investment strategies: cash, equities, bonds and a multi-asset drawdown fund, and based on industry standard projections for each we calculate YEARS. Figure 1 shows our findings, working on the basis of a 65-year old male spending their pension savings at an annual rate of 6% of their pot size at retirement, with the uncertainty around their lifespan in line with prospective mortality tables from the Office of National Statistics.

A multi-asset income drawdown fund is in our analysis by far the most efficient of the strategies tested, with a YEARS value of around 2.1 years. The relatively poor values of the other investment strategies can be explained by their low expected returns, insufficient diversification or both.

Figure 1: Retirement risk (YEARS) for different investment strategies



Source: LGIM calculations, at 30 November 2019.

The chart also compares the number of YEARS if we neglect the risk of living longer than expected and assume the DC investor lives to age 86 (his expected age of death from age 65).

The difference between the dark and light blue bars show the impact of longevity risk on retirement outcome risk. This highlights that when assessing the ability of income drawdown to provide a pension for life, it is not enough just to consider how long a DC investor is expected to live; the variability of their future lifetime is also important.

Choosing your pace of spending

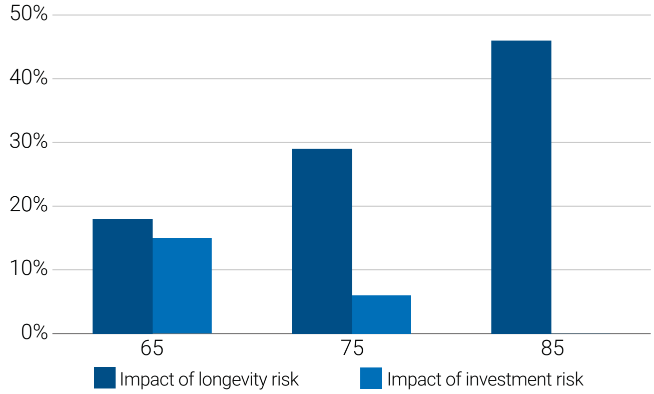
If a DC investor opts for income drawdown over an annuity, they are willing to tolerate some investment and longevity risk. However, even when invested in the multi-asset income fund mentioned earlier, we estimate that there is roughly a 30% chance of running out of money, based on the same assumptions. Other than a careful choice of investment strategy, one way to protect against this risk is to withdraw funds at a rate that anticipates a longer future lifetime, as opposed to a best estimate.

Our YEARS measure may help DC investors choose a 'prudent' pace of spending. For example, investors could choose to spend at a rate such that YEARS is always equal to 1 year (that is, a relatively short period expected without income).

The impact of investment and longevity risk

It is important to examine the impact of allowing for investment or longevity risk on a prudent pace of spending. Allowing for investment or longevity risk reduces the prudent pace of spending. This is shown in Figure 2 assuming that YEARS is fixed at 1 year (as above).

Figure 2: Spending reductions to allow for investment and longevity risk



Source: LGIM, as at 30 November 2019. Assumes that with no investment or longevity uncertainty, DC investors could withdraw £6,000 p.a. and would run out of money just before they die.

Figure 2 shows that for a typical DC investor entering income drawdown at age 65, the impact of longevity risk is (broadly) similar in size to the impact of investment risk.

However, as the investor ages the impact of longevity risk increases and the impact of investment risk decreases. By age 85, the impact of longevity risk is so significant that the pensioner may be withdrawing almost 40 to 50% each year than if they were just allowing for investment risk.

One implication is that annuity purchase may become more attractive with age because this transfers longevity risk to an insurer. However, an individual's appetite for an annuity will also be impacted by their desire to leave money to their heirs, which is not possible with an annuity.

A framework for balancing risk with reward

Income drawdown strategies can offer a potentially higher pension for DC investors than annuities. But they also carry additional risk, in particular the danger of outliving retirement savings. By using our YEARS measure, we can help to assess risks for DC investors and come up with a framework to help them to make investment decisions and choose their pace of spending.

A full-length version of this article is available on our website in our literature library.

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