

The Actuarial Profession
making financial sense of the future

Pensions Conference 2010
Andrew Gaches, Club Vita



The risky side of life

Managing longevity risk

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Longevity is a big issue...

£30,000,000,000

5 days earnings

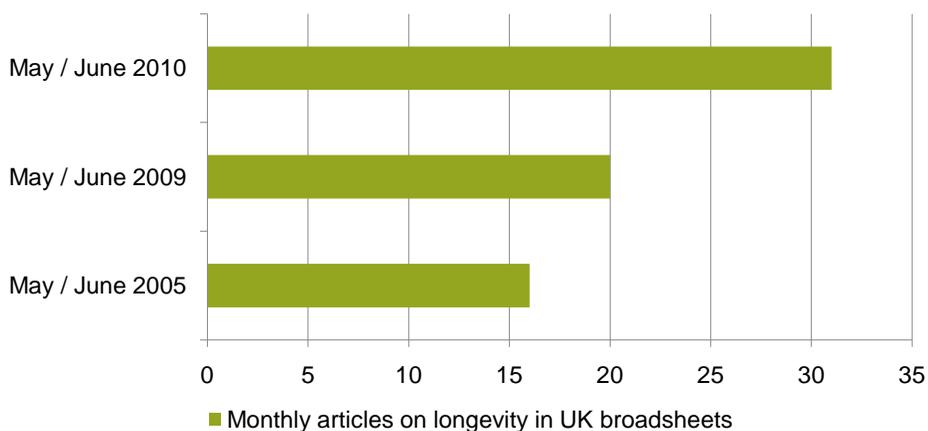
20% increase in liabilities

7 years variation

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...and the world seems to agree



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Source: Hill & Knowlton

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Longevity risk is different

Volatility risks

Short term fluctuation risks

- Equity price moves
- Bond price moves
- Currency moves

Cash flow risks

Affect actual amounts of benefits payable

- Higher inflation
- Increased longevity

Higher inflation

- Real assets likely to grow faster too
- Aligned risk strategy with Government policy

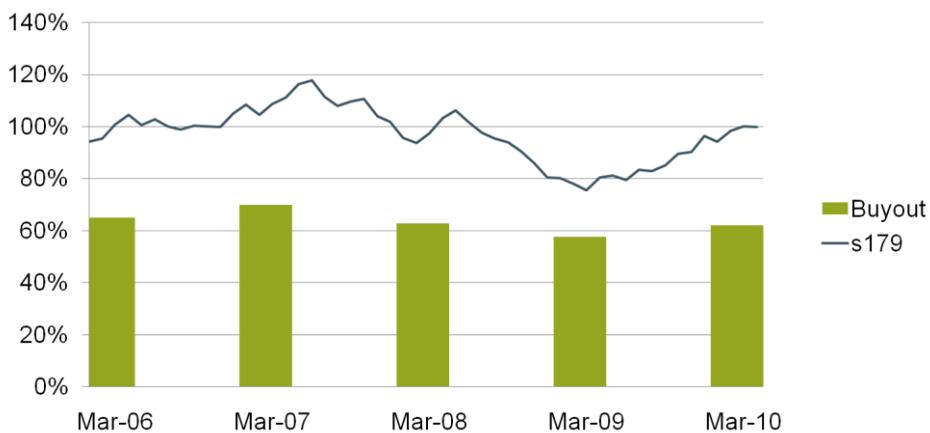
Increased longevity

- (Almost) independent of asset side
- Government social/health policy acts against pension schemes

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Buyout is unaffordable (for most)



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Source: Pensions Regulator / own calculations

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Longevity swaps: The highs



Babcock pension to hedge risk of longevity

First scheme to offset costs of long lifespans. More company plans prepare to follow suit. By Norma Cohen and Jeremy Lennie

with aggregate liabilities of £1bn, about similar to...
 Jerome Miller, partner at consultant Lane Clark and Peacock, which said it was advising six big companies on similar transactions, said companies had been trying to reduce risk by paying a life annuity to its oldest staff...



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Longevity swaps: The lows



THE INDEPENDENT

Premier ditches pension swap plans and takes on risk of long-lived members

Co-operative is second firm to ditch longevity swap deal

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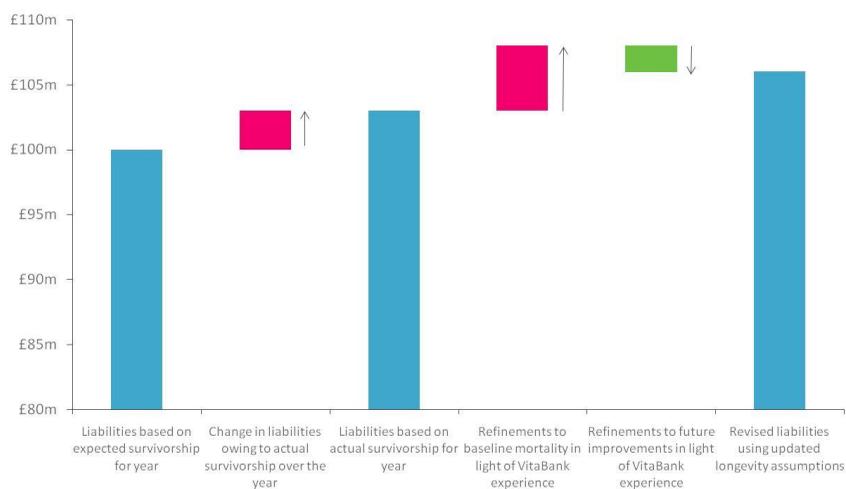
Who's left holding the baby?



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Monitoring longevity trends



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Risk sharing benefit designs

Adjust member contributions

- Monitor longevity experience
- Adjust member contributions to reflect any change in costs
- Crude across generations and unstable in closed schemes
- But several examples in UK public service schemes

Longevity adjustment factors

- Apply on retirement
- Future service only (without member consent)
- Agree benchmark and monitor subsequent experience
- Personal choice of later retirement or smaller pension
- More targeted, but criticised for difficulties in planning

Sharing savings from late retirement

- For schemes that do not fully compensate late retirees
- Many examples in public sector and in schemes with split retirement ages following Barber
- Encourage later retirements, by introducing uplifts to past service
- Can split the money between employee and employer, to create win-win

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Innovative funding plans

Employer fear of trapped surplus

- Strip out contributions for longevity improvement
- Direct longevity contributions into Escrow account

Scepticism about allowance for future improvements

- Agree triggers for extra employer contributions
- Monitor actual experience

Employer hoping to save costs from later retirements

- Assume later retirements in technical provisions
- Monitor actual experience
- Agree triggers for extra contributions if retirement behaviours do not change

Underfunded scheme with concentrated longevity risk

- Selective annuity buy-in exercise for those with largest pensions
- Ensure that residual assets have sufficient potential to recover deficit

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Communicating longevity clearly



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1. Know your limitations

Separate the known knowns...

...from the known unknowns...

...in assumptions **and in results**

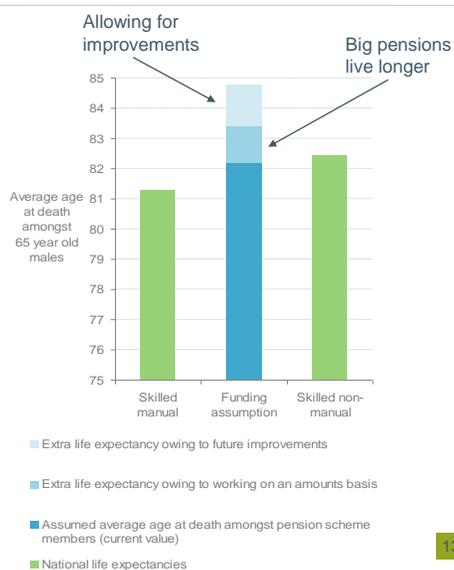
Longevity allowance	Technical Provisions
Recent experience assuming no changes in the future	£100M
Provisions for future increases in life expectancy	£112M

The above is illustrative based upon what the authors understand to be a reasonably typical valuation basis. It does not represent the personal views of the authors, or their employers, as to what a reasonable allowance for future improvements is, nor does it constitute a recommendation.

2. A common language

Use **life expectancies** or **survival probabilities** to convey assumptions...

...and **reconcile** these with numbers clients will see in the media

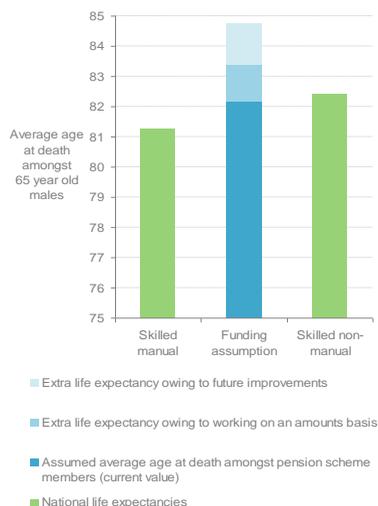


3. Keep it real

Use **scenarios** to help clients understand how a particular projection might arise....

Consistent with:

- Cohort effect in short term
- Short term reductions in heart disease and cancers in line with government targets
- Gradual reduction in numbers dying from cancer and heart disease by 90% amongst under 75s and 70% amongst over 75s by 2205 (with deaths from other diseases reduced by 70% and 50% respectively)



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4. Don't be blinkered

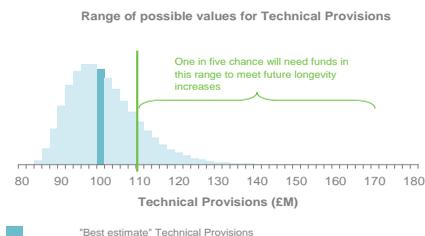
Do not be afraid of the unknown...

...instead **show a range of possibilities**

...and **monitor emerging experience**

Mortality allowance	Technical Provisions
Medical advances faster than government targets	£110M
Best estimate	£100M
Medical advances slower than government targets	£95M

The above is illustrative. It does not represent the personal views of the authors, or their employers, as to what a reasonable spread for future improvements is, nor does it constitute a recommendation.



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Effective communication

1. Know your limitations
 - Separate the knowns from the unknowns
2. A common language
 - Consistent and accessible communication
3. Keep it real
 - Relate the assumptions back to the real world
4. Don't be blinkered
 - Show the uncertainty and monitor experience

Questions or comments?

