

Momentum conference 2010
Lynda Whitney

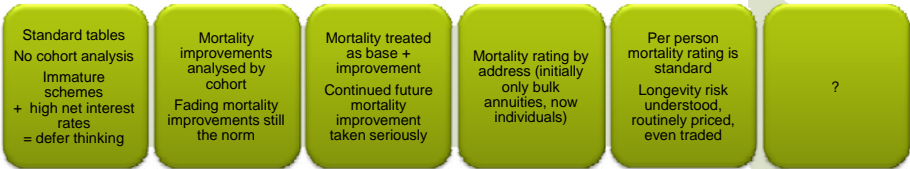
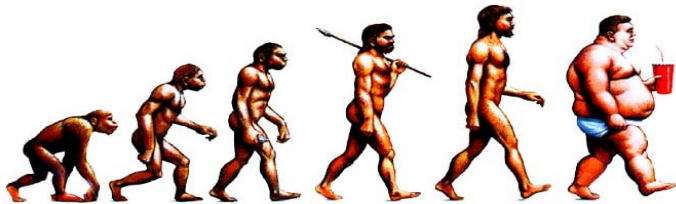


Longevity market transactions – a user’s guide

9 December 2010

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A history lesson



Longevity risk vs economic risk

Mortality and most other economic risks are fundamentally different:

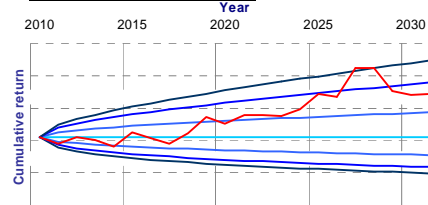
Economic risks

- The longer I run the risk, the more predictable (in relative terms) the outcome
- "Funnel of doubt" expands at a lower rate further into the future.
- "in the long term, risky assets outperform"

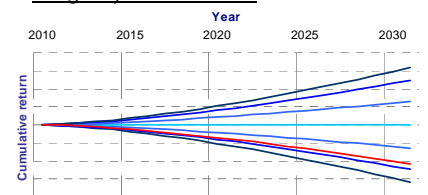
Longevity risk

- The longer I run the risk, the more extreme the outcome could be
- "Funnel of doubt" diverges
- "once longevity starts to move against me, it will probably get even worse"

Economic risk over time



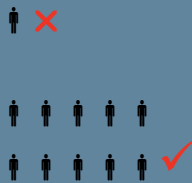
Longevity risk over time



The flavours of longevity risk

Idiosyncratic Risk

Even if you knew the "correct" mortality rate, experience will differ, particularly in small schemes



Basis Risk

How your scheme differs from the big population, and the difficulty of measuring this and its implications



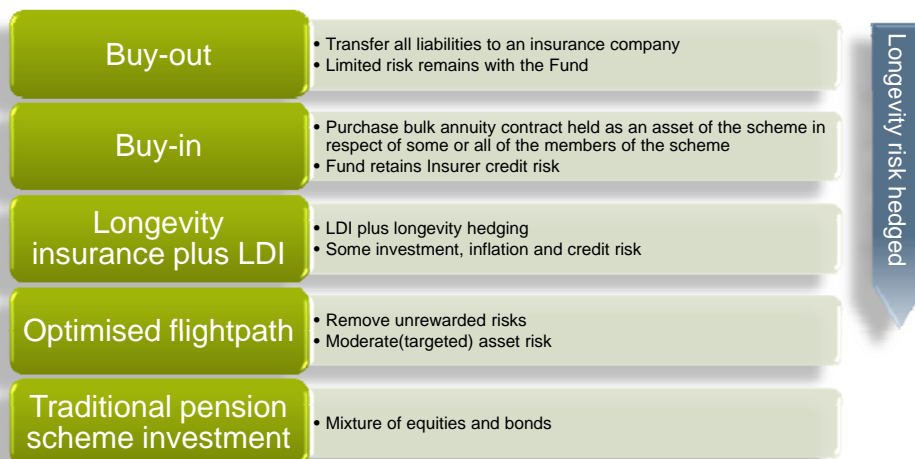
Trend Risk

Changes in a general longevity for a big population (e.g. England and Wales, insured lives, or SAPS)

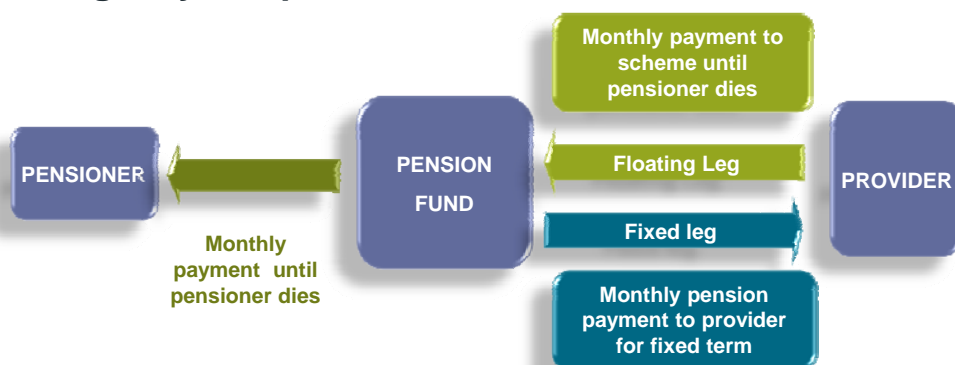


"First person to live to 1,000 might be 60 already"

Risk management options

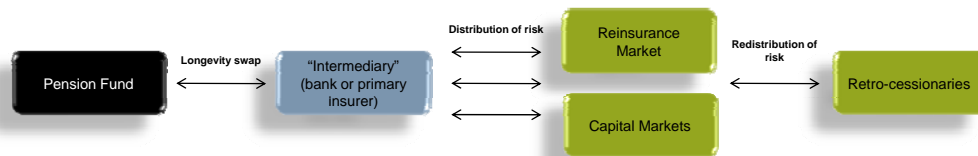


Longevity swaps



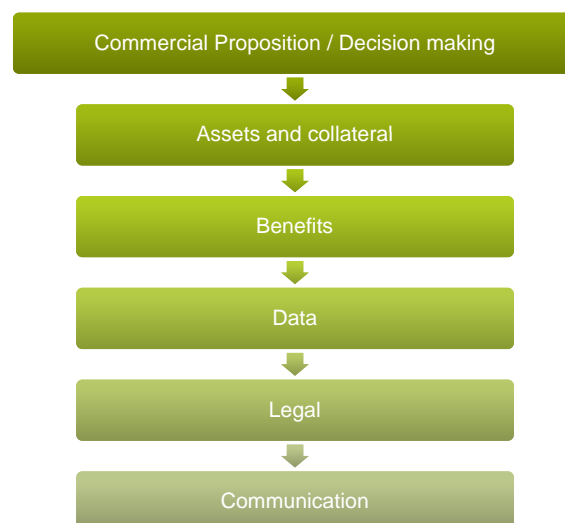
- Unfunded structure – no up front asset payment to the provider, structure is a cashflow swap
- Members continue to receive pensions from the fund – the provider pays those same amounts into the fund
- Fund is exposed to the credit risk of the provider – however several credit mitigation structures are available
- Fund also retains the investment risk of the assets, inflation risk can be retained or transferred

Who wants this risk?

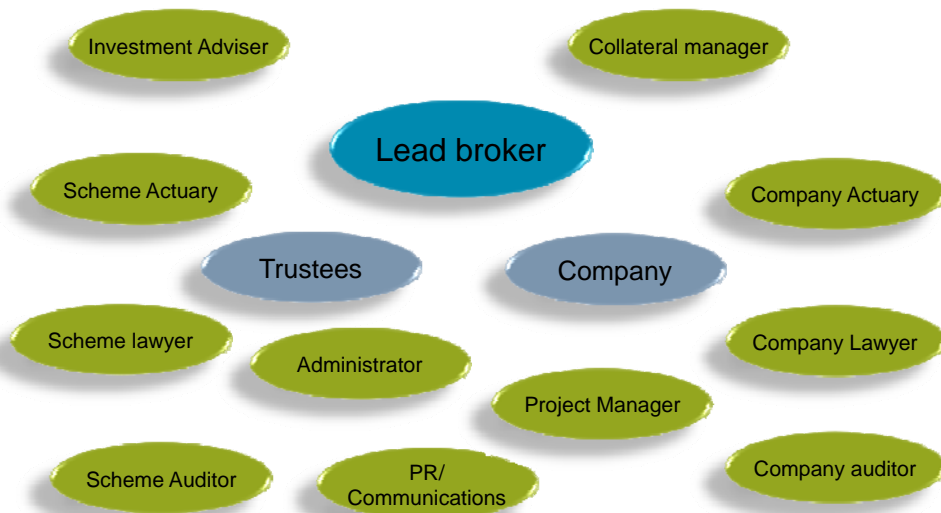


- Global reinsurance market “long” on mortality risk, “short” on longevity
- Capital market beginning to demonstrate a level of interest
- Role of the intermediary is to transform risk into an acceptable form

Anatomy of a longevity hedge



The cast



The difficult bits

- How do you measure the longevity risk you are removing?
- Collateral
- Truing up data
- Legals

Collateral

- Day 1
 - The scheme is likely to have to post
- Assets
 - What have you got
 - What you want to be left with if the worst happens
- Measurement
 - Similar to LDI but still some challenges
- Longevity basis
 - Base table is straight forward
 - Future improvements is a challenge
- Manager costs

Benefits and data

- Know your data
- Custom & practice as well as the rules
- Truing up



Legal issues

- Termination
- Surrender
- Annuitisation
- Restructuring
- Novation
- PPF
- Risks transferred e.g. admin risks
- Indemnities and warranties
- Dispute Resolution
- Execution
- Data Protection

Lynda Whitney : Biography



Lynda has over 12 years experience of advising primarily trustees and is scheme actuary for schemes ranging from £100m to £3bn. Her recent successes include:

- Working as a scheme actuary in a multi-disciplinary team that developed the synthetic buy-in deal between RSA and Goldman Sachs in 2009
- Leading her client through a period of significant change culminating in the purchase of annuities as an asset of the scheme for all members in Autumn 2007. This scheme has recently completed solvent winding up.
- Working with a client to establish a long term integrated investment and funding flightpath allowing them to derisk significantly in summer 2007
- Working as part of Hewitt's 'alternative financing' specialist team on security structure, contingent asset and other non-cash funding methods.

Lynda's clients describe her as "proactive, responsive, human. Lynda is able to explain things without jargon".

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making financial sense of the future

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