Risk, Capital and Pension Schemes – a UK Perspective

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Risk, capital and pensions schemes

Setting the scene

Buy-outs and buy-ins

Risk management perspectives

Pensions schemes and capital

What next?

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UK pensions - background

Significant growth over last 50 years

Set up under trust, independent of employer

Generous benefits developed

Employer and employee contributions

Reduced NI costs of integrated schemes

Tax incentives

Investment strategy heavily equity based

1990s – money for nothing

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And then ….

Costs escalate

Fall in equity markets

Fall in interest rates

Rise in longevity

Accounting changes – deficits on balance sheet

Schemes close – first to new entrants

Then to new accruals

Major part of liabilities in respect of pensioners and deferreds

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So sponsoring company has

- A significant liability on balance sheet
- Very sensitive to external factors
- Trustees of scheme decide how managed
- Benefits largely in respect of ex-employees
- Must target elimination of deficits within agreed timescales
- Now amount to in excess of £1 trillion liabilities
- A major headache!

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Traditional buy-outs

Purchase annuities from insurance companies to cover liabilities – cost now fixed

But insurer investment strategies bond driven – primarily gilts

Insurance company solvency requirements

Differences in view between life and pensions actuaries

Traditional buy-out seen as expensive

By 2005 only two significant insurers in the market – L&G and Prudential

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Spotting new opportunities

2006 – new entrants

More insurers – AIG, AVIVA, AEGON, Met Life

Plus the new kids on the block

- Paternoster
- Pensions Corporation
- Synesis
- Lucida
- Pensions First

And others, e.g. Goldman Sachs

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Full buy-outs

Full transfer of liabilities to insurer

More aggressive investment strategies

Original scheme wound up

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Buy-ins

Phased reductions of risk within scheme

Purchase of tailor made assets to hedge liabilities

May cover separately

- Interest rate risk
- Credit risk
- Inflation risk
- Longevity risk

Both capital market and insurance solutions

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Non-insured buy-outs

- Buy the sponsoring company
- Avoids moving all risks into insurance environment
- Pensions Regulator takes close interest

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Back to basics

DB scheme risks originally

- Inflation
- Longevity

Inflation managed by investing in equities

Longevity risk not actively managed

Investment strategies have created various types of asset risk

- Equity/property
- Interest rate
- Credit

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Inflation risk

Traditional approach – real assets

Index-linked gilts

- Not enough supply
- Low yield

Capital market solutions

Does solving one problem create another?

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Longevity risk

Mortality improvements now factored into reserving/pricing

- But is it enough?

Longevity bonds

- Based on generic indices

Longevity swaps

- Pay fixed, receive floating

Caps and collars

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Longevity bonds

Investors provide capital to scheme up front

Pension scheme pays annual yield

Generic longevity indices constructed

At maturity – say 10 years

- Principal repaid if longevity has not exceeded expected
- Else principal reduced (possibly to zero)

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Longevity bonds

- Advantages
  - Funded in advance
  - Widens longevity capacity beyond insurers/reinsurers
- Disadvantages
  - Generic, implies significant basis risk
  - Limited duration, leaving residual risk still to be hedged

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Longevity swaps

- Pension scheme pays fixed annuity schedule
    - Based on improvement factors agreed at outset
- Counterparty pays actual annuity schedule as long as portfolio lives
- Can be structured as (re)insurance
- Or as a derivative, with bank as counterparty
- Requires collateralisation to reduce counterparty risk

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Longevity swaps

Advantages

- Can be tailor made to scheme, no basis risk
- Can be for any duration
- Provide complete hedging of longevity risk

Disadvantages

- Needs individual scheme consideration
- Some limited counterparty risk – can be minimised through careful scheme design

Longevity caps and collars

Development of swap structure

Counterparty pays if annuity reserves move to (say) between 102 and 108% of expected

Receives if between 92% and 98%

Allows scheme to retain some capped risk

And reduces price of cover

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Pensions schemes do not require capital (yet)

The employer covenant

EC and Solvency 2

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Possible developments

- Aggressive investment strategies curtailed
- Continued separation of risk and risk management strategies
- Demand for hedging longevity likely to continue as long as price is reasonable
- Accounting changes will continue to be major driver
- What if pensions schemes have to hold capital?
- Now a much wider debate on risk and risk management within pension community

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