




BUYING OUT PENSIONS LIABILITIES - THEORY Vs PRACTISE 

IAN ALEY - BUSINESS DEVELOPMENT DIRECTOR, PRUDENTIAL
 DEMETRE LA GRANGE - CONSULTANT, HEWITT

PRESENTATION OVERVIEW 


- Buy-out costs Vs scheme liability valuations
- Pricing an annuity
- Bulk Annuity price sensitivity
- New solutions in the Bulk Annuity market

2

WHY ARE BUY-OUT COSTS MORE THAN A SCHEME'S LIABILITY VALUATION? 


<p>PENSION FUNDS</p> <ul style="list-style-type: none"> ✗ Have to guarantee benefits ✗ Hold solvency margins ✗ Have asset restrictions ✓ Can run short-term deficits 	<p>LIFE COMPANIES</p> <ul style="list-style-type: none"> ✓ Have to guarantee benefits ✓ Hold solvency margins ✓ Have asset restrictions <ul style="list-style-type: none"> ✓ EC 3rd life ✓ fixed interest / RPI assets for non linked /RPI linked annuities respectively ✗ Can run short-term deficits ✓ Profit
---	--

3

WHERE DO THE DIFFERENCES COME FROM? 

- Insurance companies are required to provide transparent declarations on their reserving basis
- Rates affected by Supply/Demand
 - RPI/LPI assets in short supply
 - increased demand from Pension Funds for bonds
- MFR was essentially an equity based methodology
 - equity returns are typically assumed to be higher than fixed interest


4

EXAMPLE VALUATION COMPARISON 

	MFR	FRS17	BUYOUT
Pensions	50	60	75
Deferred pensions	50	95	150
Assets	105	105	100
Surplus	5	(50)	(125)

Source: Hewitt Bacon & Woodrow, sample pensions scheme 2004

5

WHAT DICTATES THE LIFE OFFICE PRICE FOR AN ANNUITY? 

- How long we expect the beneficiaries to live
- What return can we obtain on investments we buy with the premium
- What capital is needed to back writing the business
- What expenses will be incurred
- Profit target!

6

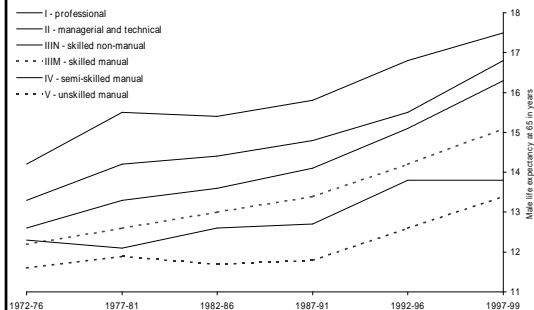
LONGEVITY RISKS: LIFE EXPECTANCY DATA



- Companies selling annuities pool mortality data via the Continuous Mortality Investigation Bureau ('CMIB')
- Office of National Statistics studies mortality of general population
- When trying to predict mortality/life expectancy, we look at:
 - trends of mortality from past to present
 - trends in particular causes of death
 - other countries with different lifestyles as indicator of potential future improvements
- Life expectancy comes from current mortality levels together with forecasts of future improvements

7

MALE LIFE EXPECTANCY AT AGE 65 (SOCIO ECONOMIC)



Source: ONS Longitudinal Study

8

LIFE EXPECTANCY - WHAT HAS DRIVEN THE IMPROVEMENTS?



- Significant reduction in heart disease mortality rates:
 - 20% improvement 1980-1990
 - further 45% in 1990-2000
- Heart disease improvements have been driven by:
 - better understanding of risk factors
 - improved diet
 - increased and more effective surgical intervention
 - drugs
- Reduction in lung cancer, driven by reduction in smoking at older ages

Source :R.Willems, calculations from ONS data

9

LIFE EXPECTANCY UNDERWRITING

- Bespoke, using rating factors including:
 - geographic location/company Industry
 - income in retirement/length of retirement
 - social class
- Rating factor assessment achieved through:
 - detailed postcode analysis
 - schemes experience, (if scheme is large enough)
- Some potential rating factors are illegal:
 - race, religion or ethnicity
 - sexual orientation
 - gender, (In future maybe?)
- While some significant rating factors are little short of bizarre:
 - month or season of birth
 - birth order
 - age of father at conception
 - leg length

10

INVESTMENT ASSUMPTION - HOW DO INSURERS INVEST?

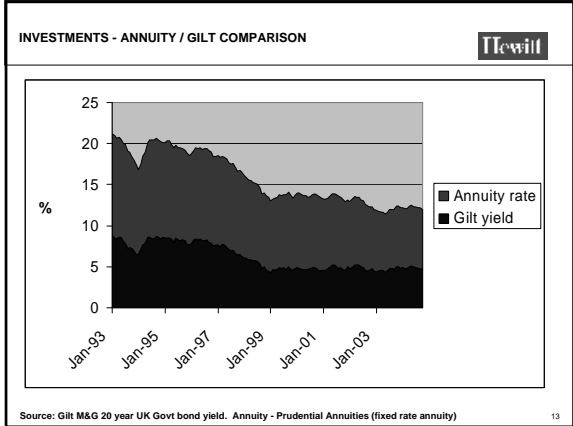
- Matching income to outgo
- Fixed interest/index linked
- Corporate Bonds
- Interest rate swaps
- Modified indexation - derivative market
- Overseas Bonds & currency swaps
- Default provisioning

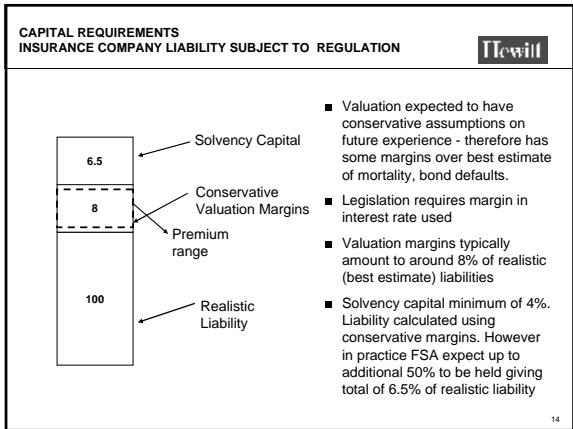
11

5 YEAR AVERAGE ANNUAL TOTAL RETURNS

Bond Category	Moody default rate	Average total return
U.K. Gilts	~4.5%	~4.5%
Sterling Non-Gilts, AAA Rated	~6.0%	~6.0%
Sterling Non-Gilts, AA Rated	~6.5%	~6.5%
Sterling Non-Gilts, A Rated	~7.0%	~7.0%
Sterling Non-Gilts, BBB Rated	~7.5%	~7.5%

Source: Merrill Lynch 2004/M&G 2004 12






BULK ANNUITY PRICE SENSITIVITY

Pricing sensitivity	1 year life expectancy	Yield 1%
Age 75, Immediate Annuity	4.0%	7.9%
Age 50, Deferred Annuity*	3.4%	29.7%

* Retirement at age 65

Age ratings can vary scheme by scheme by upto six years


15

MARKET CONSTRAINTS 

- Investment markets
- Insurers longevity
- Capital availability

APF impacts?


16

ISSUES IN PENSIONS 

GN9 changes

- Discontinuance solvency
- Various options available
- Possibly 2nd guess Life Office basis
- Rule of thumb?


17

ISSUES IN PENSIONS 

Debt on employer

- Unlikely to obtain buy-out quote
- Adopt approximate buy-out basis
- Time delay to resolve issues
- Exposure to changes until terms secured


18

ISSUES IN PENSIONS 

Mergers

- GN16 – consider wind-up position
- Again, buy-out basis required
- New GN16 might change this?


19

ISSUES IN PENSIONS 

Wind-up

- Lengthy process
- Possible changes in Life Office bases
- Exposure to change in costs / assets
- Lack of understanding of process
- "Joint venture"


20

ISSUES IN PENSIONS 

Managing risk

- Integrate with investment strategy
- "Immunise"
- Question regarding Bonds v Buy-out
- Buy-out for schemes with less than 50 members


21

ISSUES IN PENSIONS 

Gordon, Speed, Cowling paper


- Review communication of "solvency"
- Possible increased focus on discontinuance solvency
- How would you explain basis used?
- "No surprises" v changes in buy-out bases

22

NEW SOLUTIONS IN THE BULK ANNUITY MARKET 

- New entrants to the buyout market?
- Structured Buyout Plan
 - premiums phased over a period .
 - employer winding up insolvent scheme can fund buy out premiums over a period
 - terms established at the outset of the policy
 - full longevity insurance provided on day one
 - can manage impact on accounts
- Refundable Buyout Plan
 - premium based on the Prudential's reserving basis, with a contribution to capital.
 - pension benefits are guaranteed,
 - 'refunds' are paid to the scheme if overall scheme experience is favourable compared to the reserving.
 - enables risks to be insured or experienced

23

SPREADING THE COST WITH A STRUCTURED BUYOUT PLAN 

- Longevity risk is insured from day one if premium schedule is met
- Retention of assets allows the scheme investment flexibility for longer
- Employers with schemes in deficit can fund the shortfall over an extended period
- Reduced volatility in future financial statements of the employer under FRS17/IAS19
- Predetermined cash-flows for trustees
- Trustees may obtain comfort from retaining the assets on the balance sheet of the scheme
- Assets held by the scheme to pay future premiums have fewer restrictions than assets held by insurer
- Allows the scheme time to reconcile data

24

THE SMALL PRINT



- The opinions expressed in this presentation are those of those of Ian Aley & Demetre La Grange and are not held by Prudential or Hewitt Bacon & Woodrow unless specifically stated.
- The material is for general information only and does not constitute investment, tax, legal or any other form of advice.
- You should not rely on this information to make (or refrain from making) any decisions.
- You should always obtain independent, professional advice for your own particular situation.

Prudential[®] is a trading name of The Prudential Assurance Company Limited. This name is also used by other companies within the Prudential marketing group, which between them provide life assurance, pensions, savings and investment products. The Prudential Assurance Company Limited is registered in England and Wales. Registered Office at 142 Holborn Bars, London, EC1N 2NH. Registered number 15454. Authorised and regulated by the Financial Services Authority.

Hewitt Bacon & Woodrow Limited is a member of the General Insurance Standards Council. Registered in England and Wales: No.4396810. Registered Office: 6 More London Place, London SE1 2DA.

25
