Discount Rates Forum
Staple Inn, 23 March 2010

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Agenda

Welcome and Introduction - Ronnie Bowie
Introducing the Project - Charles Cowling
Presentation of initial findings - Chinu Patel, Chris Daykin
Open discussion
Next Steps
Close

Introducing the Project

• Establish cross-practice team
• Analyse current practice on discount rates
• Describe how and why risk is included in discount rates
• Develop a common language and framework to describe current practice
• Consider options for reducing diversity of practice and introducing a transparent framework
• Consider impact and management of change
Introducing the Project

Charles Cowling, Chairman (Pensions)
Robert Hails (Management Board)
Andrew Smith (Life assurance)
Alastair Clarkson (Life assurance)
James Tuley (Life assurance)
James Orr (General insurance)
Malcolm Kemp (Investment and ERM)
Ruth Loseby (Research Manager)
Maria Lyons (Research Assistant)

Current Practice

Survey of different discount rates currently used for different purposes in the UK, to include
- Historical perspective
- Legislative framework
- Nature of promise
- Impact of government actions on nature of promise
UK focus, with only passing reference to international developments
- where they have a particular bearing on UK practice

Existing Research and Debate

- Summary of existing research and debate on discount rates
- Recent public debate on matters related to discount rates
- Future developments in discount rates already under way, and key dates
Developing a common language

A common language for communicating current practice on discount rates
- Describe current practices and rationale behind different discount rates
- Improve communication of discount rates
  - To users of actuarial services
  - To external stakeholders
- How and why risk is included in discount rates in different circumstances:
  - What is the rationale?
  - What are the similarities and differences?

Developing a common framework for the future

Using the common language to:
- Develop/propose additional material for informing and influencing debate with regulators and standard setters
- Support actuaries to communicate impartially and effectively
- Consider options for reducing diversity of practice
- Consider extent to which risk might be included more explicitly and transparently in discount rates, recognising there are different purposes
  - Capital requirements
  - Accounting requirements
  - Shareholders
  - Management
  - But still allowing for diversity of practice at a detailed level

Impact

Consider impact of any proposed changes:
- How they would be presented
- How they would aid communication of different liabilities to different stakeholders
- What are the views of all the stakeholders?

To include:
- Political consequences
- Impact of transparency on regulation
- Impact of transparency on behaviour
- International consequences
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Forum on Discount Rates
Chris Daykin and Chinu Patel

Where we are now....
Discount rates in the UK
23 March 2010

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Our purpose: A reminder

- Codify current practice
  - initially restricted to principal areas of actuarial practice
  - some work outstanding
- Take stock of existing research and debate on discount rates
- Develop common language
  - Rationale
  - Communication
  - Risk content
Historical context

A lightning review of 400 years
- Concepts of compound interest – Witt (1613)
- Application to annuities – de Witt (1671) and Halley (1693)
- Artificially low rates of interest and book value of assets
- Yield on fund and expected yield on future assets
- Discounted cash flow of both assets and liabilities
- Market value of assets and market-related discount rates
- Prudent valuation v realistic valuation
- Market value of liabilities without regard to assets held

Use of discount rates by others

Government use of discount rates
- Social time preference rate
  - how society values the present compared to the future
- Discount rate of 3.5% (real rate)
  - used to determine whether government action is justified
    - based on comparisons of utility by time and generation
- Cost-benefit analysis may use higher rate to allow for risk
- Long-term sustainability of public finances
- Contracting-out rebate assumptions

Some discount rate concepts

A selection of issues from current practice
- What is the purpose of discounting?
- Return on particular assets or a theoretical concept?
- Price or value?
- Long-term or short-term considerations?
- Is a transaction to take place in the market?
- Risk-free rate
- Liquidity premium
- Equity risk premium / Diversification premium
Life insurance

Current regulatory requirements set by FSA
- Twin peaks approach
- Peak 1
  - Market value of assets
  - Gross redemption yields in the market
    - eliminating credit risk
    - but not any premium arising from lack of marketability
    - 97.5% of observed yields
  - Running yield on equities and property
    - Average of current dividend and earnings yield but no allowance for future growth
    - No liability for future awards of bonus

Life insurance

Current regulatory requirements set by FSA
- Peak 2 (applies to larger with profits funds only)
  - Firms must determine Enhanced Capital Requirement
  - Market value of assets
  - Market consistent allowance for future returns on investment
    - Running yield, no allowance for capital growth
  - Stochastic approaches preferred
  - Demonstrate ability to treat customers fairly
    - In line with Principles and Policies of Financial Management
  - Market-consistent valuation of options and guarantees

Life insurance

Accounting requirements – SORP
- 2008 regulations under the Companies Act
- Actuarial principles in EU Accounts Directive of 2002
- SORP developed by ABI
- Supports accounting treatment under Peak 1
  - although not subject to admissibility regulations
- Peak 2 assessment used if available (FRS27)
- IFRS 4 does not have additional constraints
  - permits most existing practices
Life insurance

Embedded value

- Traditional embedded value used in M and A transactions
- Increasingly forms part of disclosure in accounts
- Value of future profits from existing business
  - on the basis of best estimate assumptions
  - having regard to constraints of regulations on emergence
- Trend is towards market-consistent embedded value (MCEV)
  - although extent of true market-consistency varies

General insurance

Current regulatory requirements set by FSA

- In accordance with generally accepted accounting principles
- Historically, technical provisions were not discounted
  - except perhaps some long-tailed business
- Now discounting is permitted if average terms is >4 years
  - but still not widely practised
- IFRS 4 permits continuation of this situation

Current developments – where we might be going

Solvency II

- Technical provisions to be best estimate plus a risk margin
- This can be interpreted as being an exit value
- Risk-free term structure of interest rates to be used
- In general no regard to assets actually held
- Discussion over how risk-free rates should be determined
- Industry arguing for illiquidity premium
Current developments – where we might be going

Revision of IFRS 4
- Long and twisting road to a standard for insurance contracts
- Latest draft of IFRS (revised) proposes settlement value
- Expected PV is probability weighted average of PVs of outflows for possible outcomes
- Current market yields
- No guidance intended on discount rates beyond this
- Possibility of IASP being developed by IAA – which might give guidance on how to arrive at discount rate

Historical perspective on pensions

Last 15 years
- Compulsory indexing; removal of dividend tax credits
- Market based accounting standards without smoothing
- MFR gave way to scheme specific approach
- Proactive management of sponsor’s credit risk
- Sponsor commitment strengthened by ‘debt on employer’ regulations
- Closure of pension schemes and greater focus on risk management
- Debate on funding v solvency; use of tools and techniques from financial economics

Where we are on pensions

Funding requirements set by legislation and IPR
- Technical provisions (TPs)
  - Discount rate to be prudent and can be either or both of
    - Expected return from scheme’s assets
    - Yield on gilts or high quality bonds
  - Credit risk management
  - When sponsor covenant weakens TPs expected to strengthen
- Recovery plan
  - Discount rate more likely to be based on actual asset strategy, and no prudence requirement
Where we are on pensions

Employer debt (S75)
- Exit price required to bring scheme’s funding level to cost of insurance buy-out

Transfer values
- Defined by legislation to preserve equity between transferring and remaining members
  - Expected cost to scheme
  - Expected return on scheme assets
  - Can cut back if scheme in deficit (subject to ….)

Accounting requirements set by IASB/ASB
- Obligation in sponsor’s accounts
  - Yield on high quality bonds
    - AA, if deep market
    - No adjustment for credit defaults/downgrades
    - Broad term matching, but not full term structure

Director’s remuneration (Listing Requirements)
- Measure of accrued pensions = transfer values
  - Expected return on scheme assets.

Pension ALMs
- Risk reward scenarios over future timeframes
  - Best estimate return from scheme’s assets

Where we might be heading

- Pension accounting
  - New IAS19: No corridor, no deferred recognition, no credit for assumed out-performance in P&L
  - Work on discount rate to begin in 2011. ‘AA’ bond yield not a foregone conclusion.
  - IAA asked by IASB to help with ideas on measurement of liabilities.

- Trends towards buy-out
  - Pension transfer market: managing the long and short simultaneously
  - TPs being gradually ratcheted upwards
  - Financial firms’ own pension liabilities have higher capital requirements
  - European debate on an SII type standard for pensions
Some preliminary observations

- Different methodologies used by different stakeholders
- Purpose and context usually determine nature of calculation
- Additional rules and guidance by relevant authorities often provide a further steer
- Nature and degree of risk embedded in the discount rate is a key characteristic
- May be possible to view calculations under two broad categories.

A possible rationalisation

Matching calculations
- What are the characteristics of the liability cash flow?
- Are there any traded instruments which match liability cash flows?
- Is the market deep, liquid and transparent?
- What is the next best thing?
  - Synthetic price?
    - Judgements about insurer and assumptions
    - Generally calibrated to market

Budgeting calculations
- How is the liability being financed?
- What is the current yield on the investments?
- Is the current yield the same as the total overall return?
- What is the next best thing?
  - Assumptions
    - Judgements about financial and economic indicators
    - Possibly informed by market analyses

Reconciliation from a risk perspective

Matching calculations
- Risk of non-delivery implicitly targeted to be low or minimal

Budgeting calculations
- Risk of non-delivery is a balancing item

Low embedded risk

Higher embedded risk

External risk support
Building blocks for discount rates

Matching calculations
- Build up to the matching asset
  - Reference market rates
  - Term structure
  - Default risk
  - Illiquidity premium
  - Diversification premium
  - Result is a yield structure to apply to cash flows

Budgeting calculations
- Establish reference asset portfolio
  - Risk appetite and affordability
  - Return of liability; discounts; guarantees
  - Available market instruments
  - Preference examples
- Adjust current yield on asset portfolio (eg for credit defaults) and make judgements about future expectations (eg equity growth)
- Result is (usually) a single ‘expected return’ (arithmetic or geometric) to apply to cash flows

Who uses which?

Matching
- Accounting
  - Current IAS19 (pen)
  - Future IFRS4 (ins)
- Statutory reserves
  - Future (SI)
- Capital requirements (ins)
  - Current ICA
  - Future (SI)
- Shareholder (ins)
  - MCEV
- Risk transfer
  - Section75 (Pen)
  - Hedging (banks, ins, pens)

Budgeting
- Accounting
  - Current (ins)
  - Director’s pensions
- Statutory reserves
  - Current (ins)
- Funding (pens)
  - Technical provisions
  - Recovery plans
- Shareholder (ins)
  - Traditional EV
  - Transfer values (pens)
  - Govt STPR
  - Fundamental value

Some more observations

- No matter what approach has been adopted to arrive at the discount rate, in practice there will be many variants, each with a different level of risk embedded in the discount rate.
- How this risk is expressed may be the key to better communications between stakeholders.
Risk structure of discount rates: a possible decomposition

Doesn't matter how discount rate has been arrived at, you could decompose it for presentation as:

- Other expected out-performance
  - Diversification premium
  - Illiquidity premium
- Credit default
- Least risk reference

Some further observations

- Confusing language and terminology - a barrier to communication
- Market consistent valuations also require judgements - Many variants, depending on how requisite levels of objectivity and consistency are attained
- Some differences in how different stakeholders address different risks (and hence discount rates):
  - Equity returns: FSA v TPR
  - Accounting of insurers' annuity books v own pension liabilities
  - Managing own credit risk: FSA (regulatory capital) v TPR (covenant management)
  - IASC (uniform credit risk for all) v TPR (strong TP if weak covenant)
  - Management of volatility: Pension (nuisance/denial) v Insurance (capital management)
  - Social element and inter-generational cross subsidies: government v insurance v pensions
  - Addressing riskiness of cash flows: through discount rates (economists, corporate finance, possibly IFRS) v more explicit allowance (actuaries)

Next Steps

- Complete Research on Initial Findings
  - Targeting end April
- Refine work on developing a common framework
- Develop proposals
- Consider impact / consult stakeholders
- Publish proposals
  - Targeting end 2010