International Actuarial Association

Bank of England
24 February 2014
Presenters: Members of the Oversight Group
Today’s Speakers

- Ken Quintilian, FCAS (Moderator; General Insurance)
- Derek Wright, FIA (Life)
- Gary Hibbard, FIA (Pensions)
- Kamran Foroughi, FIA (Life)
What is the IAA?

- Worldwide association of professional actuarial associations
  - 65 Full and 28 Associate Member associations representing approximately 60,000 actuaries in more than 108 countries
- 7 special interest Sections for individual actuaries
- Over 750 volunteer actuaries (Council, Committees, Sections) and 10 staff
- Based in Ottawa, Canada – constituted in Switzerland
- Exists to encourage development of a global profession, acknowledged as technically competent and professionally reliable, which will ensure that the public interest is served
What is the IAA? (continued)

Vision
The actuarial profession is recognized worldwide as a major player in the decision making process within the financial services industry, in the area of social protection and in the management of risk, contributing to the well-being of society as a whole.

Mission
The mission of the IAA, as the worldwide organization of actuarial associations, is:

- to represent the actuarial profession and promote its role, reputation and recognition in the international domain; and

- to promote professionalism, develop education standards and encourage research, with the active involvement of its Member Associations and Sections, in order to address changing needs.
What is the Discount Rate Project?

Purpose
- Key topic today and will continue to be well into the future
- Use of discount rates applies to most actuarial calculations
- Monograph addresses the concepts and practical methods that are being used in the application of the discounting process for the purpose of financial reporting for (1) insurance companies and (2) pension and employee benefits obligations on the sponsor entity

Roles:
- Ad Hoc Project Oversight Group (APOG): Oversight
- Milliman: Authors
Ad Hoc Project Oversight Group (APOG)

**IAA Representatives:**
- **Enterprise and Financial Risk Committee:** Tony Coleman
- **Insurance Accounting Committee:** David Congram (APOG Chair), Sam Gutterman and Francis Ruygt
- **Pension & Employee Benefits Committee:** Gary Hibbard, Esko Kivisaari, Tom Terry and Alf Gohdes
- **Social Security Committee:** Joe Applebaum
- **IAA Secretariat:** Christian Levac

**Representing the project sponsors:**
- **Actuaries Institute Australia:** Dave Finnis
- **Canadian Institute of Actuaries:** Bob Brown
- **Institute & Faculty of Actuaries:** Derek Wright
- **US Actuarial Foundation:** Curtis Huntington
- **Casualty Actuarial Society:** Ken Quintilian
- **Society of Actuaries (Fin. Reporting Section):** Frank Grossman
Other IAA Monographs:

- **Stochastic Modeling – Theory and Reality from an Actuarial Perspective**  
  
  - Published May 2010
  - Presents the mathematical and statistical framework necessary to develop stochastic models in any setting

- **Adjustment for Risk for Financial Reporting Purposes**  
  
  - Expected to be published in 2015
  - Will address the application of risk and uncertainty to the measurement of the liability of insurance contracts in the context of general purpose accounting as adopted by the International Accounting Standards Board (IASB)

An important part of the IAA’s research and educational objectives, to facilitate and provide useful educational material that is accessible to actuaries everywhere.
Primary Authors - Milliman

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- Andrew H. Dalton, FSA, MAAA
- Derek Jones, FCAS, MAAA
- Philip Simpson, FIA, ASA, FSAI
- James G. Stoltzfus, FSA, MAAA, CERA
Session Agenda

TBD
Structure of the Monograph

- Background / Generally Applicable Concepts
- Detailed discussion of relevant topics
- Special Interest Topics (e.g., General Insurance, Participating Business)
- 13 Case Studies (Detailed Practical Applications)

Relevant Areas of Practice

- Life
- Pensions / Employee Benefits
- General Insurance (Non-Life Insurance)
Objectives of Discounting

- Financial Reporting (main focus of this text)
- Regulatory / Solvency Reporting
- Tax Reporting
- Economic Valuation / Fair Value
- Product Pricing
- Management Decisions / Profitability Monitoring
- Going Concern / Liquidation / Solvency Perspectives
What is a risk-free rate?
Government Debt Yield Curves – risk-free?
Available Maturities / Duration Matching
Residual Risks in the Lowest-Risk Rate
Issues of Tax Policy
Market Inefficiencies
Components of Discount Rate

- Time Value of Money
- Real vs. Nominal (Allowance for Inflation)
- Interest Rate Risk / Yield Curves / Matching
- Credit Risk (Expected Default and Pure Credit Risk)
- Illiquidity Risk
- Sovereign Risk
- Market Inefficiencies / Modelling Error
Conceptual Issues in Risk Adjustments

- Nature of Risk and the Direction of the Risk Adjustment
- Stakeholder Perspective in Evaluating Risk for Discounting
- Differences in Evaluating Assets vs. Liabilities
- Risk Adjustment to the Discount Rate vs. the Ultimate Liability Value
General Insurance
Discounting Perspectives in Non-life

- Short-duration Contracts – one year or less
- Balance Sheet Events have typically already occurred (IBNR)
- Payments Highly Uncertain as to Amount
- Payments Also Very Uncertain as to Timing / Payment Pattern
- Payments often Uncorrelated with Financial Variables
- Focus on Insurance Risk (not Financial Risk)
- Focus on Claim Management (not Investment Returns)
- Hedging and Duration Matching - Relatively Minor
- Low Interest Rates makes discounting even less significant
In many GAAP and regulatory regimes, loss reserves not discounted

- When allowed often carefully circumscribed
- In emerging regimes (e.g., IFRS, FASB), simplified approaches or discounting opt-outs under certain circumstances
- Discounted reserves often increased to adjust for risk
- In discussions of new reporting regimes, the idea of exempting GI from discounting continues to be raised
Commonly Used Approaches to Discounting in GI

- Portfolio Rate vs. Risk Free Rate
- Relative Importance of Risk Adjustments and How they are Applied
- Average Interest Rate vs. Yield Curve
- Selection of the Payment Pattern (CLM vs. Percent of Ultimate)
- Relative Importance of the Rate vs. the Pattern (vs. the Claim Amount)
Differences by GAAP Regime

- UK / Europe
- US
- Canada
- Australia
Differences by Regulatory Regime

- UK / Europe (Solvency II)
- US (Statutory Accounting)
- US Tax Treatment
Differences Based on Balance Sheet Item

- Loss Liabilities (Loss Reserve or ‘Loss Provision’)
- Premium Liabilities (Unearned Premium or ‘Premium Provision’)
- Unexpired Risk Provision (Premium Deficiency Reserve)
- Unearned Premium for Long-Duration Policies (e.g., warranty coverage)
- Extended Reporting Reserve (Claims Made Free Tail Coverage)
Special Studies in GI Discounting

- Pricing vs. Reserving
- Structured Settlement Annuities on Long-Duration Claims
- Reinsurance / Loss Portfolio Transfers & Surplus Relief
- Valuation / Equity in the Loss Reserve
- Conservatism in the Reserve vs. Conservatism in the Discount
- Reserve discounting allowed in US under certain circumstances (Workmen’s Comp, certain med mal)
Emerging Practice for GI

- FASB
- IASB
- Solvency II
- Premium Allocation Approach allowed for GI
- Illiquidity Premium - How to Estimate - Differences between Liabilities & Assets
- Nation Specific Rates
- Yield Curve vs. Average Yield
- Prescriptive vs. Permissive Interest Rate Selections
Implications of Discounting in GI Context

- These are my views, not found in the text
- Traditional financial risks pale compared to the insurance risk
- Finer points of discounting theory aim for hedging and risk management
- These issues are less important for a GI insurer
- In GI, discounting is smaller and other risk components are greater
- Prescribing a detailed discounting approach is counterproductive
- Balance sheet risk might be increased by introducing many poorly understood adjustments in the interest of a more “economic” presentation