Institute of Actuaries of Australia

2004 Financial Services Forum

...The New Environment

SPONSORS

KPMG

TOWERS PERRIN TILLINGHAST

PRICEWATERHOUSECOOPERS

Liability Options/Asymmetries

Life Financial Reporting, Tax and Legislation Subcommittee

Agenda

- LIASB requirements
- IAAust guidance notes
- AASB requirements
- Option types
- Valuation techniques
- Considerations
- Subcommittee’s plans
- Discussion

AS1.03 - Principles

- The Actuary must have regard to the impact on the liability of the distribution of potential future outcomes. (1.9)
- BEL must include an appropriate value in respect of options and asymmetries. (1.9)
- Approximate methods may be used where the result is not materially different. (1.10)

AS1.03 - BEL

- BEL and BEAs to have regard to any options or asymmetrical distributions of liability outcomes. (3.3.1)
- The value of any options must be determined and added to the BEL, or the BEAs adjusted. (3.3.4)

AS2.03 - Assumptions

- Solvency Assumptions after the exercise of an option must allow for appropriate risk margins applied to BEAs. (4.7.1)
- Solvency Assumption for the take-up rate must reflect an adverse change of 10% of the BEAs. (4.7.2)

AS3.03 - Assumptions

- Range for margin on options
  = 10-40% of BEAs. (Attachment 1)

GN552 - Options

- Appropriate allowance for any material optionality or non-linear outcomes.
- Encouraged to make explicit allowance.
- May be via option pricing techniques or stochastic modelling. (s5.4)

GN552 - Cash flow model

- Should appropriately allow for options, guarantees or other asymmetric features. (s7.2)

GN252 - Understanding

- Some aspects that may need to be considered in developing an understanding include options and guarantees granted to policyholders. (s5)

GN252 - Cash flow models

- Any policyholder options and guarantees, or other forms of asymmetric financial outcomes, should be appropriately handled in the model. (s8.2.1)

GN252 - Modelling

- Stochastic modelling can be particularly relevant for products such as immediate annuities and those products with significant embedded guarantees or options. (s10.1.1)

AASB139 – Embedded Derivatives

- Component of a host contract where some of the cash flows vary in a similar way to a stand-alone derivative. (para 10)
- Needs to be separated if the host contract is not measured at fair value. (para 11)
- Does not need to be separated if measurement requires considering a host insurance contract. (AG33)

AASB1038 – Embedded Derivatives

- AASB139 applies to derivatives embedded in a life insurance contract. (para 2.2.1)

Participating Business

- Minimum maturity benefits (SA + RB)
- Minimum surrender benefits (MTVs)
- Minimum crediting rates
- Expense guarantees
- Conversion options
- Insurability options

Protection Business

- Rate/benefit guarantees
- Loyalty discounts
- Insurability/buyback/reinstatement options
- Conversion options
- Profit sharing
- Minimum surrender values

Other Business

- Guaranteed annuity options
- Annuity surrender options
- Annuity death benefit guarantees

- Maturity guarantees
- Surrender guarantees

Valuation Techniques

- Assumption margin
- Stochastic modelling
- Option pricing techniques
- Market pricing

Considerations

- Materiality of product line
- Materiality of option
- Volatility over time
- Trends

Subcommittee’s Plans

- Finalise discussion note
- Gather feedback
- Assess degree of divergence
- Consider need for guidance note

Discussion

- Other requirements?
- Other liability options?
- Other valuation approaches?
- Auditors' views?
- Need for guidance?