

Biennial Convention 2007

# Adventures in Risk

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Institute of Actuaries of Australia



## RRTF Discussion Paper

**Resilience Reserve Task Force**



## Agenda

- Background and Scope
- Key Points
- Areas of Difference
- Feedback



## Background and Scope

- Various phases of work
- This phase is principle-focussed
- “What is the Resilience Reserve trying to achieve”
  - principles applicable both for:
    - developing a prescribed basis
    - assessing appropriateness of internal models



## Background and Scope (cont)

- More detail than existing standards
  - “the ability of a statutory fund to withstand shocks to the economic environment in which it operates and which are likely to cause a sudden reduction in asset values or a requirement to assess liabilities using reduced investment earning rates”
  - “mismatching of asset and liability exposures necessitates the provision of a reserve for adverse movements in asset values to the extent they will not be matched by a corresponding movement in the liabilities”



## Background and Scope (cont)

- No focus on practical implementation issues
  - part of Phase 2
- Subsequent work:
  - develop a prescribed basis
  - determine detailed criteria for approval of internal models



## Background and Scope (cont)

- Immediate next steps
  - get feedback from membership
    - Horizons sessions were held in August
    - comments / questions now
    - written submissions due by 5 October 2007
  - finalise our position
  - make recommendation to LIASB
  - if that position is approved, move on to subsequent phases



## Key Points

- Test interest rate risk, other asset price risks currency risk and credit risk [§4]
  - Add parameters that influence derivative prices (particularly volatility) [§4.4]
  - Additional reserves if not “fully diversified” [§4.11]
  - Apply explicit inflation shock [§4.12]
- Tax effects should be included [§10.1]
- Time horizon fixed at one year (or shorter if processes in place to match) [§5.2]
- Application of shocks [§5.5]
  - instantaneous under the prescribed basis
  - projected under an internal model



## Key Points (cont)

- Asset mix should reflect the actual mix at the calculation date [§10.4]
  - expected changes allowed under an internal model
- Diversification effects should be incorporated [§7.4]
  - correlations should reflect those under “extreme” market movements
  - correlation between assets and liabilities should be included
- No "artificial" minimum level of reserve should be set [§10.2]
- The basis should be uniform across a company [§10.3]
  - the prescribed basis should not be product-specific
  - internal models should be based on a single consistent framework, but different detailed modelling approaches could apply to different product types





## Key Points (cont)

- Mean reversion will not apply to the prescribed basis [§9]
  - companies should form their own view on mean reversion in respect of any internal model
- Hypothecation should be allowed under all capital standards
- Given the time-frames and confidence levels being considered, sufficient relevant historical data is simply not available [§11.1]
  - consequently some element of judgement is necessary in setting the parameters for a prescribed basis or any internal model
  - correlations of variables for extreme market movements are particularly difficult to set based on historical experience



## Main Areas of Difference

- Firstly, the basics are unchanged:
  - broad asset classes
  - risks to address:
    - interest rates (separate for nominal + real)
    - equity price
    - property price
    - credit
    - currency
  - time horizon



## Main Areas of Difference (cont)

- More explicit treatment of:
  - inflation
  - derivative price drivers
  - diversification within asset classes
- Extend allowance for diversification to include A-L correlation
- Allow hypothecation under Solvency Standard



## Feedback

- Feedback to date:
  - agree with excluding mean reversion from prescribed basis
    - concern over inconsistency with internal model
  - disagree with hypothecation under Solvency
  - push back on parameters – 50yrs of quarterly data
  - ensure level playing field (across entity types)
  - prescribed basis should be robust but kept simple
  - nominal/real/inflation triangle should focus on nominal/real
  - internal model should be option, prescribed basis should not be penal
  - ensure no double up of concentration/resilience aspects



## Feedback

- Comments / questions now
  - agree
  - disagree
- Written submissions due by 5 October 2007