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Review of Target Surplus Policy and Possible Future Developments

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Target surplus defined

"Target surplus is the amount of capital that a life insurance company aims, in the long term and in normal market conditions, to maintain above regulatory capital requirements, as part of a holistic risk management framework, balancing the interests of stakeholders"

Kent Griffin & Robert Baille

Purposes of target surplus

Reactive

- The board / parent requires a target surplus policy
- APRA requires a target surplus policy

Pro-active

- Component of holistic risk framework
- Used to determine profit distributions
- Used as an input into regular budget planning
- Considered as part of scenario planning

Risks included

- Changes in interest rates
- Change in market prices (equity and property)
- Credit risks / counterparty exposures
- Insurance risks
- Operational risks
- Others?

Risk matrix for Australian products

Annuities	Interest rate, credit, market, insurance
Traditional & investment account	Interest rate, credit, market
Disability insurance (including claim reserves)	Interest rate, credit, market, insurance
Lump sum risk	Insurance
Investment linked	Unit pricing

Operational risk

- Risk of losses resulting from inadequate or failed processes, people and systems
  - IAA Insurance Regulation Committee
- Root cause of many failures
  - LTCM (non application of controls and inadequate model)
  - Barings (non application of controls, fraud)
  - Equitable (under reserving, poor product design)
  - General America (options on rating downgrades)
  - AIB (non application of controls, fraud)
  - HIH (non application of controls)

Setting an appropriate risk of breach

- Board or management opinion
- Appointed actuary opinion
- Credit rating guidelines
- Peer companies
- Consider risk of ruin implied by capital adequacy standard

- Other measures (e.g. ECOR, TailVaR, downside risk)

What is a reasonable risk horizon?

- Is target surplus for quickly emerging events only?
  - e.g. 20% drop in equities or 3% spike in interest rates
- Should target surplus be held for slowly emerging events?
  - e.g. worsening trend in annuitant mortality
  - e.g. move to lower interest rate environment

Calculation methods

- Factor based
- Probability distribution formulae
- Stochastic or Monte-Carlo models
- Historical scenarios

Trade-off between complexity and accuracy

Target surplus as a control

- Is target surplus considered in developing business plans?
- Does management have contingency plans if target surplus is threatened?
- Is target surplus assessed against each business unit?

Conglomerates and target surplus

- Do parents consider target surplus needs of their life insurance operations?
- Or is it more efficient to hold target surplus at the conglomerate level?
- Can diversification effects be considered within a conglomerate?

Future for target surplus

- Part of holistic risk control framework

- More complete and accurate models
  - Measure probabilities of breach

- Explicit part of regulations?

- Inclusion of operational risk