
# RECENT INTERNATIONAL ACCOUNTING DEVELOPMENTS

*Bob Buchanan*

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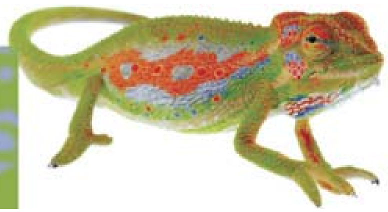
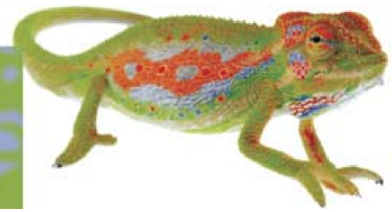


# Structure of Paper

- Players
- Projects
- Issues

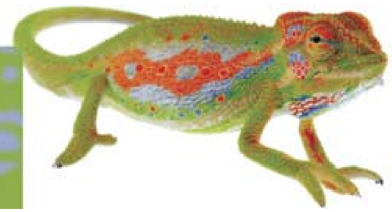
# Players

- IASB
  - FASB
  - AASB
- FRC
- IAIS
- IAA
- IAAust



# IAAust

- International Accounting Standards Committee
  - Established 1998
  - GI and Life actuaries
  - Support for IAAust representative on IAA Insurance Accounting Committee
  - Support for Tony Coleman on IWG
  - Engages with IASB, AASB, IAA, IAIS, etc.



# Projects

- IASB
  - Insurance Contracts
  - Liabilities
  - Fair Value Measurement
  - Revenue Recognition
  - Financial Instruments
  - Conceptual Framework
- IAIS

# IAIS

- Consistent and Transparent measurement support for global solvency considerations
- IAIS solvency reporting initiative
  - "Cornerstones"
    - Core principles of solvency reporting
  - "Framework"
    - Establishing the environment
  - "Roadmap"
    - Planned actions to build the framework
  - "Structure"
    - The regime needed to implement the framework

# Insurance Contracts

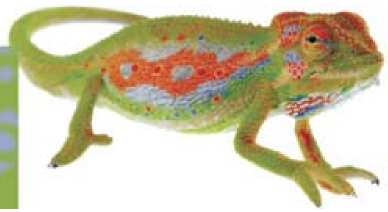
- Three Building Blocks
  - Expected cash flows
  - Discounting
  - Margin
- Exit or Fulfilment Value
- Profit at inception

# Issues – I

- Measurement Attribute
- Discount Rate
- Cash Flows
- Entity-Specific *vs* Market Based
- Reference Entity
- Risk Margin
- Apportionment of Capital
- Profit at Issue

# Issues – II

- Reinsurance
- Unit of Account
- Diversification
- Locked-in or Current Assumptions
- Renewal Assumptions
- Policyholder Behaviour
- Own Credit Risk
- Insurance Cycle



# Risk Margin

- Cost of Capital
  - Capital
  - Rate of Return
- Quantile
  - Value at Risk = Probability of Adequacy
  - Conditional Tail Expectation = TVaR
- Other Approaches
- Choice of Approach

# There is More – Questions

- Measurement Attribute
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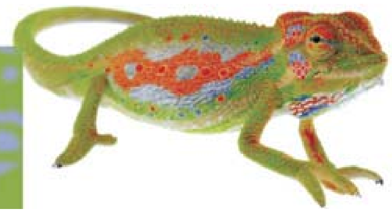
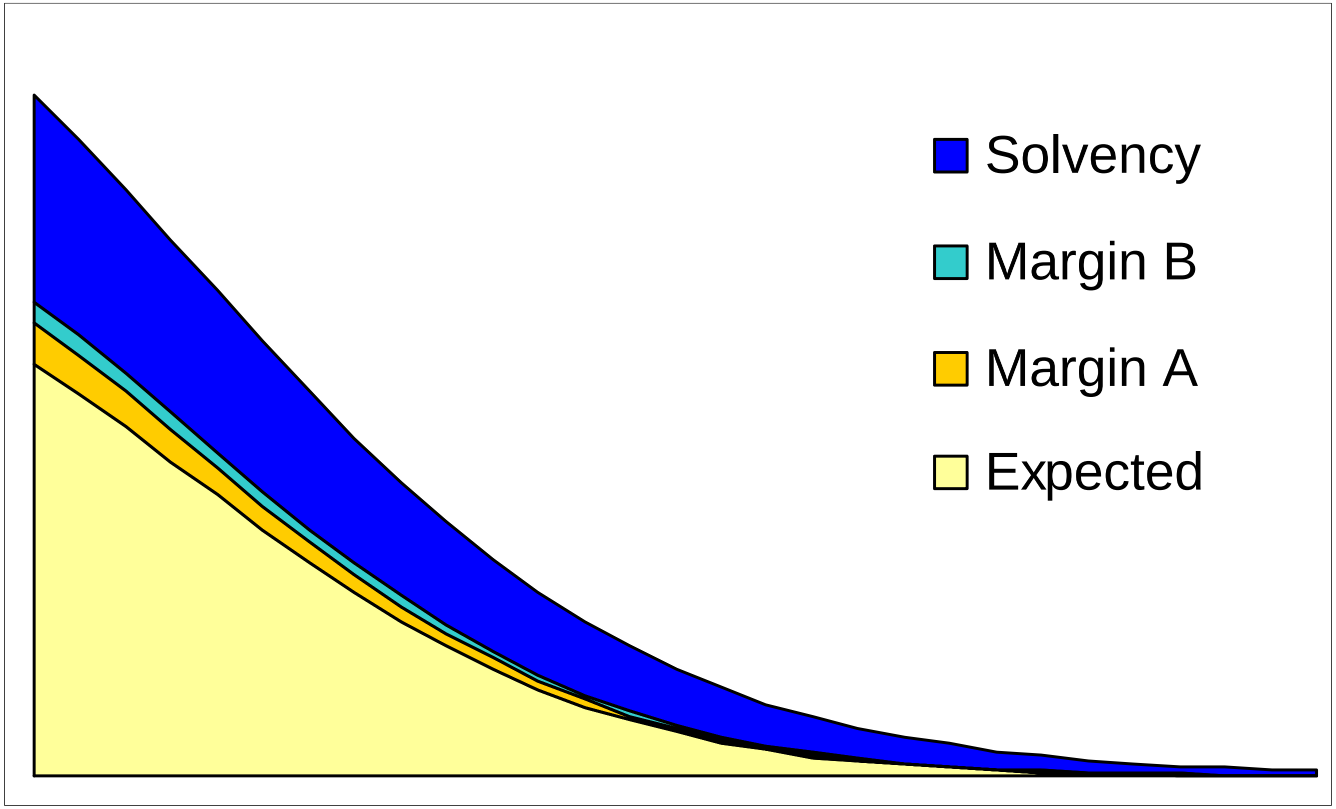


# Cost of Capital

- Required Capital
  - Expected Present Value
  - Valuation Margin
    - A – Funded out of premium profit margin
    - B – Funded by shareholders
  - Solvency Margin
- Release of margin A provides the extra return required on margin B plus solvency

# Capital Run-Off



# Cost of Capital Margin

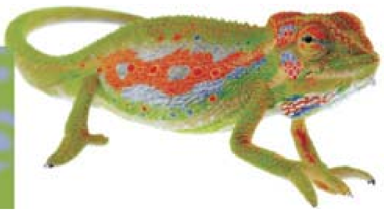
$$M(t) = \int_0^\infty r(t+z)e^{-\delta z}\,\mathrm{d}z - \int_0^\infty r(t+z)e^{-\rho z}\,\mathrm{d}z$$

(after Hart, Buchanan & Howe equation 11.26). See the RMWG report for an equivalent discrete algorithm.

The required margin, $M(t)$, at time $t$ is the difference between the value of future releases $r(t+z)$ at the risk free rate ($\delta$) and the rate of return ($\rho$) required on capital.

Releases include margins A & B, as well as the solvency margin.

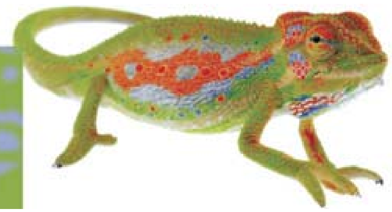
If the premium and valuation bases are the same, margin B is zero.



# Cost of Capital – Practical Implementation?

- A compromise between approaches based on:
  - Frictional Cost of Capital
  - Market price of risk; and
  - “Traditional” equity risk premium views (eg CAPM or FF2F)

    *P Keller, S Wang, R Phillips advice to CRO Forum, July 2008*
- Leads to a range for the cost of capital of 2.5% to 4.5% (in excess of “risk free”)
- But do recent capital market events affect this calibration?



# Quantile Risk Measures

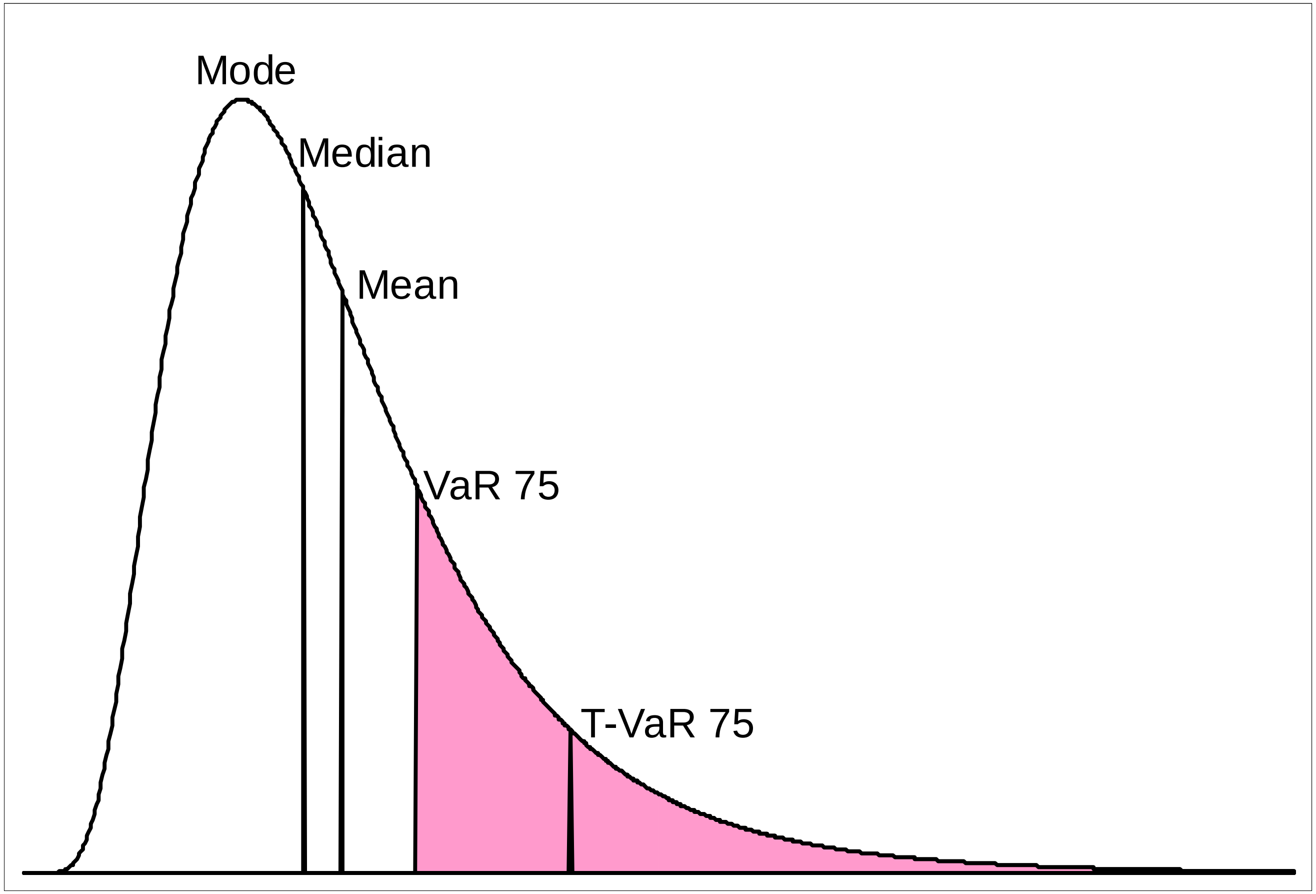
VaR(x) is the x-quantile of the distribution

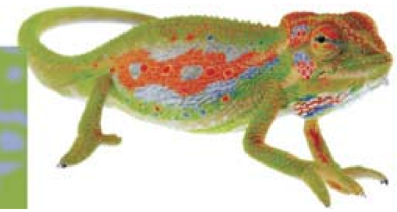
$$x = \int_{-\infty}^{VaR(x)} f(z)\,\mathrm{d}z$$

TVaR(x) is the conditional mean, above VaR(x)

$$TVaR(x) = \frac{\int_{VaR(x)}^{\infty} z\, f(z)\,\mathrm{d}z}{1 - VaR(x)}$$

# Quantile Risk Measures



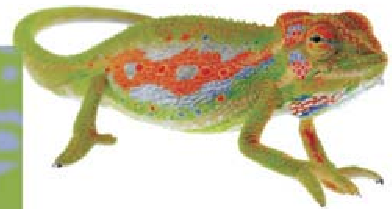


# Framework Project

- Phase A
  - Objectives
    - Entity Perspective
    - Capital Providers
  - Qualitative Characteristics
    - *Fundamental*: Relevance, Faithful Representation
    - *Enhancing*: Comparability, Verifiability, Timeliness, Understandability
    - *Constraints*: Materiality, Cost

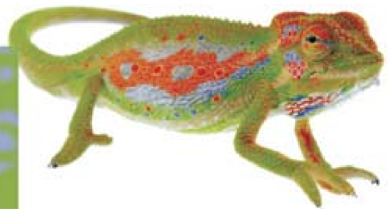
# Framework Project

- Phase B
  - Definition of Elements
  - Recognition
- Phase C
  - Measurement
- Phase D
  - Reporting Entity Concept
- Phase E
  - Presentation
  - Disclosure



# Measurement Attribute

- Entry Value
  - Market Premium
- Exit Value
  - Transfer to Third Party
  - Market Based
  - Fair Value?
- Settlement (Fulfilment) Value
  - Run-Off
  - Entity Based

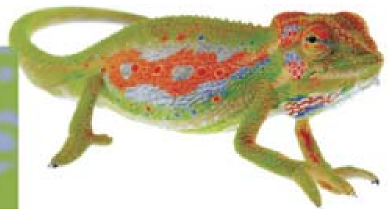


# Discount Rate

- “Risk-Free”
- General Insurance
  - Sovereign Debt
  - Swap Rates
  - Adjusted Corporate Debt
- Life Insurance
  - Liquidity Adjustments (especially for Annuities)

# Cash Flows

- Unbiased estimates of probable cash flows
- Portfolio-Specific
- Entity Specific *vs* Market Based
  - Market basis excludes localised synergies
  - Evidence of market differences???
- Expected Value – not Most Likely



# Entity Specific *vs* Market Based

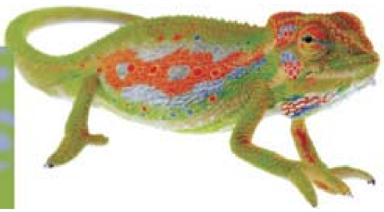
- Market Assumptions for Observables
  - Discount Rate
  - Economic & Social Conditions, etc.
- Experience Assumptions Portfolio Based
  - Underwriting & Marketing Selection
- Expense Assumptions
  - Entity or Market?
  - But interaction of experience with underwriting, marketing & claim management

# Reference Entity

- Relevant to market based assumptions and to margins
- Large multi-line insurer with market-typical capital/reinsurance structure
- Size may not make much difference if reinsurance market-typical for size

# Capital Apportionment

- Whole of Capital Covers All Liabilities
- Apportionment
  - Myers-Read
  - Butsic



# Profit at Issue

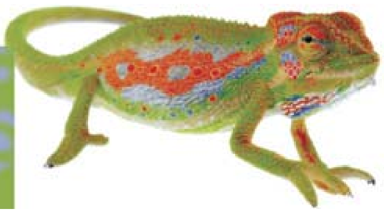
- Should it be allowed?
- If not
  - – Unearned Premium
  - – Profit/Service Margin on top of Risk Margin
    - Run-Off Basis?
  - – Profit Margin on top of Risk, Service Margins
    - Run-Off Basis?
- What about Claim Provisions
- *cf* Life Insurance

# Reinsurance

- IASB yet to come fully to grips
- Accounts show gross & recoveries, not net
- Net result is what really matters
- Uncertainty reduces asset value

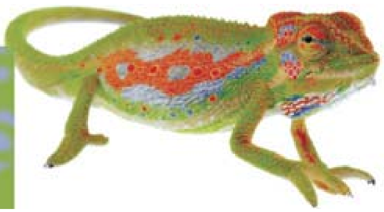
BUT

- Net uncertainty less than proportional to gross uncertainty if non-proportional R/I
- Pragmatic solution needed
- Scale Net Margin for Gross & Recoveries



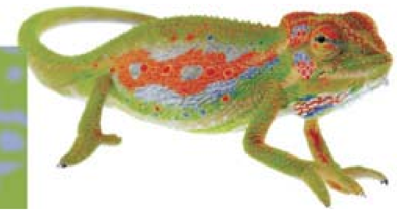
# Unit of Account

- Portfolio of Similar Policies, Similarly Managed
- Should not affect liability
- May do so if Diversification is misunderstood



# Diversification

- Should not be an issue
- Arises because the uncertainty of a pool is less than the sum of the uncertainty of the components of the pool
- Uncertainty should be assessed on a whole entity net of reinsurance basis and apportioned

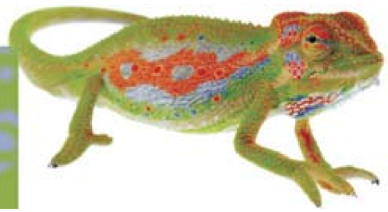


# Locked-in or Current Assumptions

- Current assumptions generally favoured by IASB for economic & experience
- Lock-in under discussion in relation to profit/service margins

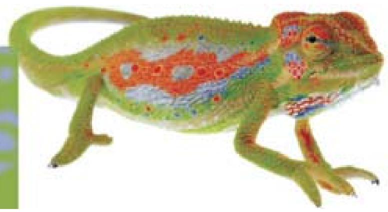
# Renewal Premiums

- Mainly a life issue
- General insurance terminology of renewal for subsequent years
- Form over substance could be a problem
- Discussion mainly about rationale needed for sensible outcome



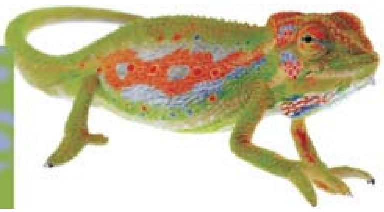
# Policyholder Behaviour

- Mainly a life issue
- Rationale needed to recognise future premiums when insurer cannot enforce payment



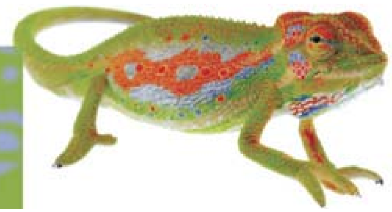
# Own Credit Risk

- Market price of corporate risk allows for deduction for issuer default
- Anathema to insurance regulators
- Opposed by insurance industry
- Measurement attributes
  - Entry value – n/a
  - Fair value – net of OCR
  - Exit value – probably net
  - Fulfilment value – probably gross



# Insurance Cycle

- Insurance premium rates vary relative to expected cost over 8-10ish year cycle
- Strongest variation for long-tail low data
- Market prices not a good guide to cost in either hard or soft market
  - Profit at issue if hard
  - Loss at issue if soft



# Fair Value

- *The price at which an asset or liability would change hands in an arms-length transaction in a deep and liquid market*
- Guidance (over)emphasizes actual transactions when market is thin and parties have uneven bargaining power
- *Fair Value* is seldom fair value in times of boom or bust