The Actuarial Profession

making financial sense of the future

GIRO conference and exhibition 2010 Simon Sheaf and Stephen Kelly

Everything you always wanted to know about the Solvency II balance sheet but were afraid to ask

12-15 October 2010

Why should you care?

"We should not underestimate how big of a task it will be to construct this [Solvency II] balance sheet according to the new requirements. It is also worth noting that because of the importance of getting the balance sheet right, you can also expect the FSA to be focusing our attention in this area."

Ken Hogg Director, Insurance Sector FSA 18 May 2010

Everything we are going to cover

- Introduction to the Solvency II balance sheet
- Valuation of assets
- Valuation of technical provisions
- Valuation of other liabilities
- Questions and discussion



Does it matter?

- "Bedrock of Pillar 1"
- Focus of Supervisory Review Process
- If valuations are inaccurate, MCR and SCR will be wrong
 - using Standard Formula AND Internal Models
- Key element of QIS5

Principles

- Individual item basis
- Going concern basis
- Assets valued on an economic basis
 - in line with IFRS
- Technical provisions valued on market-consistent basis
 - discounted best estimate plus risk margin
- Other liabilities valued on an economic basis
 - in line with IFRS

Valuation of assets

Article 75

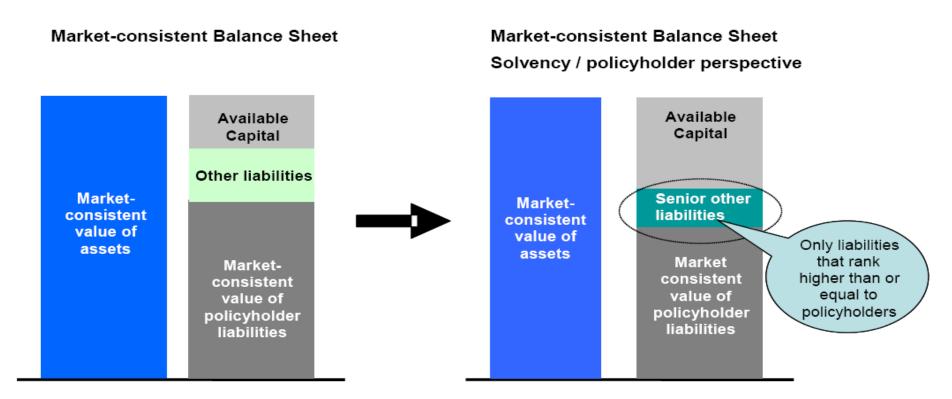
"...assets shall be valued at the amount for which they could be exchanged between knowledgeable willing parties in an arm's length transaction "

Assets

- IFRS cf Solvency II
- Conceptual similarities, though
- IFRS focus on performance
- Solvency II protection of policyholders...

Assets

Solvency II - protection of policyholders...



Source: CEA Working Paper on the Total Balance Sheet Approach

Assets

Divergence as recorded in balance sheet

	Solvency II	IFRS
Asset	Mark to market	Cost

... volatility

... reconciliation challenges

Valuation of technical provisions

What's different?

- Solvency II segmentation
- Genuine best estimate
- Split between claims provisions and premium provisions
- Legal obligations basis
- Allowance for binary events
- Include expenses both ALAE and ULAE
- Include allowance for reinsurance non-recoveries
- Cashflows
- Discounting
- Risk margin

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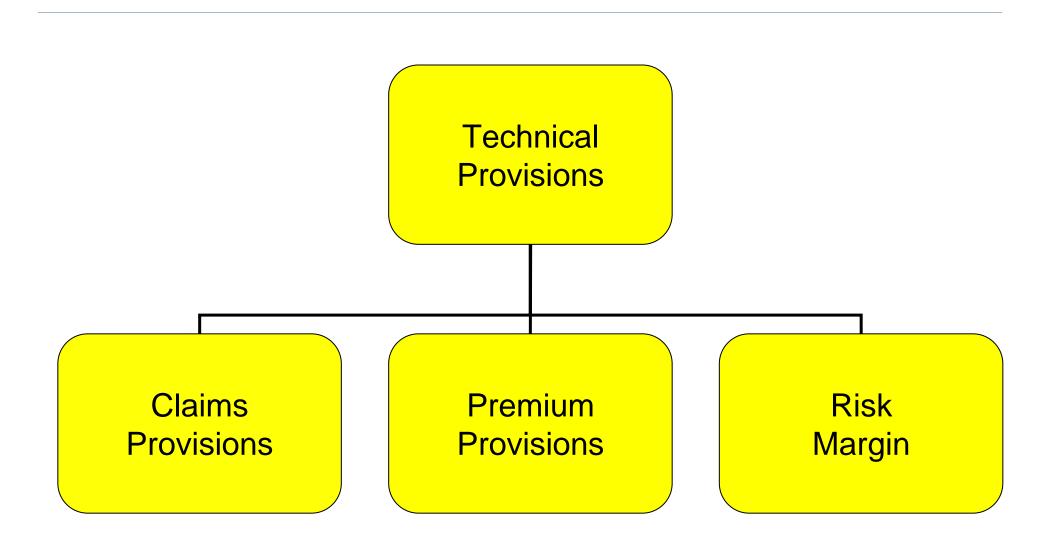
So, quite a lot ...

Article 77

"The value of the technical provisions shall be equal to the sum of a best estimate and a risk margin... The best estimate shall correspond to the probability-weighted average of future cash-flows, taking account of the time value of money..."

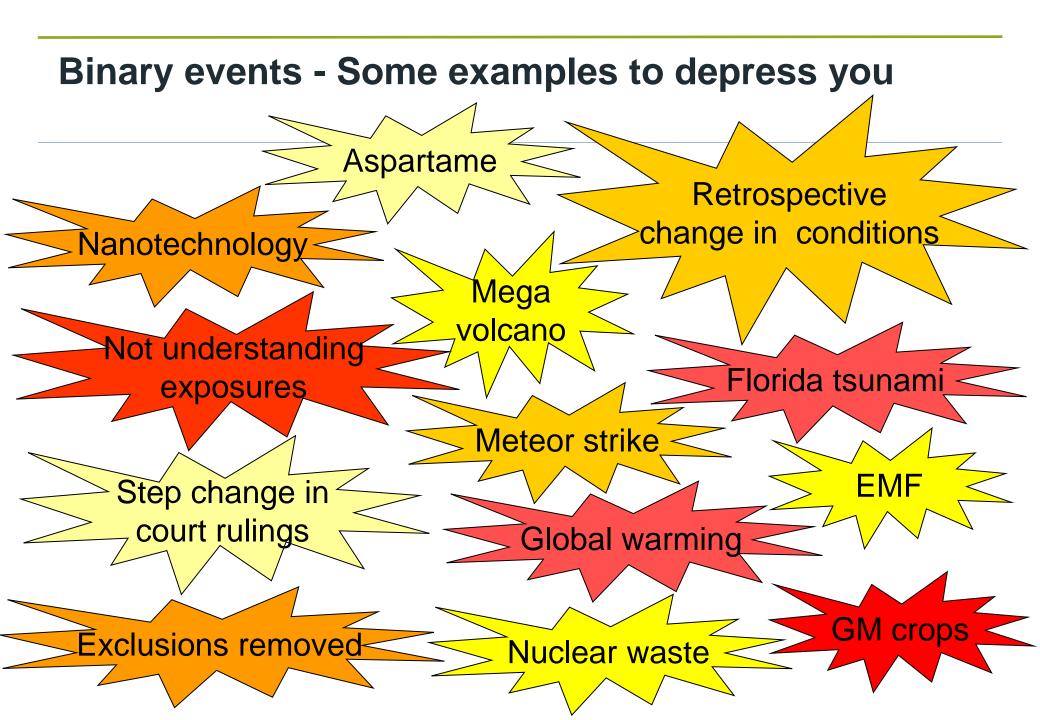
- Deterministic methods?
- Stochastic methods?

The new recipe for technical provisions



Legal obligations basis

- Include contracts when legal obligation is established
 - NOT when policy incepts
- But what does this mean in reality?
- Tacit renewals
- No allowance for quotes even if insurer has no wriggle room
- Recognise profit immediately
- Significant data challenges for many insurers
- QIS5 first dry run of this
 - How are insurers coping?



So how do you allow for them?

- Change assumptions underlying projections
- Or add an allowance on top of projections
- Historical experience
- Frequency / severity assumptions
- Very subjective
- Lloyd's has estimated
 - uplift on premium provisions of 2% 5%
 - uplift on claims provisions of 5% 10%
- Also need to consider associated cashflows

What about reinsurance?

- Calculate gross provisions and reinsurance recoveries separately
- Principle of correspondence
- Expected recoveries (and reinsurance costs) in respect of existing contracts should be included
- But NOT recoveries in respect of contracts that are not yet in place
- May need to assume future reinsurance purchases
- Allowance for reinsurance non-recoveries

Calculation of risk margin

Calculate SCR in each future year

Discount

Sum

Multiply by the Cost-of-Capital rate (6% is hot favourite)

Risk margin

In many (all?) cases, simplifications will be needed

Full calculation of all future SCRs

Approximate some risks when calculating future SCRs

Approximate the entire SCR in each future year

Estimate all future SCRs at once

Estimate the risk margin directly

Valuation of other liabilities

Article 75

"Liabilities shall be valued at the amount for which they could be transferred, or settled, between knowledgeable willing parties in an arm's length transaction.."

No adjustment to reflect the insurer's own credit standing

Questions and discussion

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