



The impact of Solvency II on reserving

GIRO – Edinburgh – 8 October 2009

Annette Olesen
David Paul

Agenda

- Introduction to Groupe Consultatif and its Solvency II project
 - Work to date 2005 to 2009
- Why harmonisation of technical provisions across Europe is difficult
- Status on Solvency II – and its challenges for actuaries
 - The Directive's requirements
 - Current discussion points/ issues
- GC responses
- Article 47: Actuarial Function and reserving
 - Standards for the Actuarial Function
- Conclusion

Introduction to Groupe Consultatif

Established in 1978

Represent 35 actuarial associations from 32 countries

- Approx. 17,000 actuaries

Aim:

- Acts as conduit for European actuaries (actuarial bodies) to:
 - European Commission (DG Internal Market)
 - Parliament
 - CEIOPS
- Arguably EU institutions will listen more to a single voice for actuarial profession's views

Reality:

- Technical and expert, not industry lobbyist
- Seen as a key stakeholder by Commission and CEIOPS (alongside CRO Forum, CEA, etc)
- National actuarial associations also making representations to CEIOPS directly

Introduction to Groupe Consultatif

Established in 2004

Project leader: Seamus Creedon

Aim:

- Coordinate GC activities and work
- Provide technical input on SII to CEIOPS, Commission etc.
- Organised 5 working groups to pair off CEIOPS structure
 - Life
 - Non-life (Chair AO, Vice-chair DP)
 - Internal models
 - Pillar 5
 - Groups
- Under governance of GC Insurance Committee

Recent focus of non-life group:

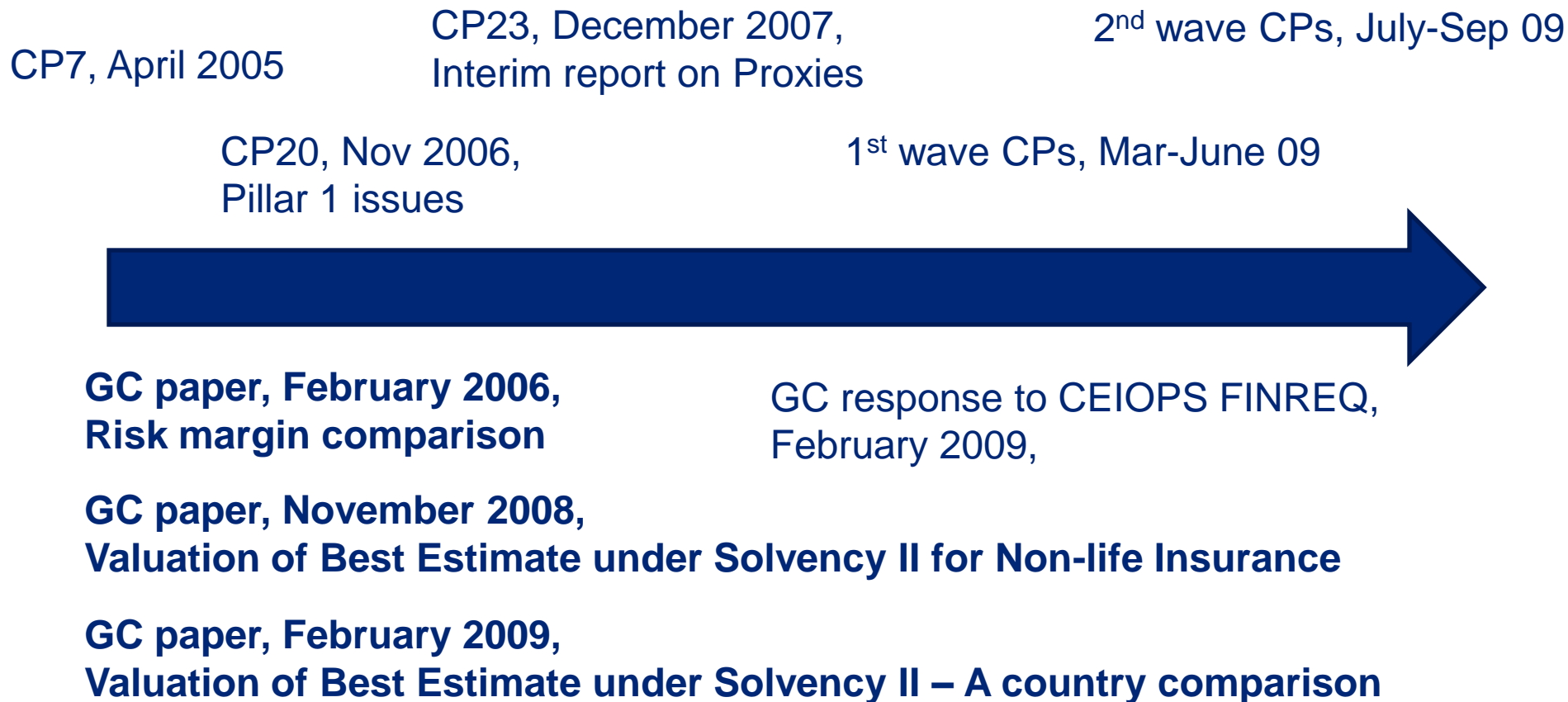
- Responses to CPs
- Focus on reserving in particular
 - Importance of judgement – educating: “not a cook-book”
 - Best estimate concept
 - Understanding national variation and interpretation

Groupe Consultatif – Solvency II Pillar I Non-life working group

Country	Representative	Country	Representative
Austria 	Christoph Krischanitz	Italy 	Gennaro Olivieri
Belgium 	Rosella Piccaluga	Netherlands 	Peter Franken
Denmark/ UK 	Annette Olesen (Chair)	Norway 	Simen Gaarder
Finland 	Pasi Laaksonen	Poland 	Robert Pusz
France 	Benoit Courmont	Spain 	Teresa Sendra-Vives
France 	Sandra Rato vonarivo	Sweden 	Arne Sandström
Germany 	Clemens Frey	Switzerland 	Philipp Keller
Germany 	Gregor Blasel	UK 	David Paul
Ireland 	John McCrossan	UK 	Gavin Hill

GC Non-life working group

Reserving discussions 2005 – 2009



Non-life reserving discussions 2005 – 2009

CP7, April 2005, second wave of calls for advice

- Included “Call for Advice CfA8: Technical provisions in non-life insurance”
- CfA8: “CEIOPS is invited to advise on how best to develop common EU actuarial standards to achieve greater consistency in provisioning practices”
- Best estimate not defined at this point, still discussing percentile approach for risk margin, etc.

GC paper, February 2006, Risk margin comparison

Non-life reserving discussions 2005 – 2009

CP20, November 2006, Pillar 1 issues – further advice

- Included “Valuation standards – technical provisions”
- Development of risk margin, probability-weighted cash flow, etc.
- CEIOPS seemed to have perception that general insurance technical provisions capabilities were very limited:
- Harmonisation of prudence in technical provisions will be enhanced by harmonising reporting for provisions. CEIOPS recommends that a reflection should continue on defining common reporting tools, in particular run-off triangles

CP23, December 2007, Interim report on Proxies

- Concern about reserving where data might be weak, or reserving skills not available
 - Why not solve these problems, rather than accommodate them?

Non-life reserving discussions 2005 – 2009

GC paper, November 2008, Valuation of Best Estimate under Solvency II for Non-life Insurance

GC response to CEIOPS FINREQ, February 2009,

- GC emphasised again the approaches from the November 2008 GC paper

GC paper, February 2009, Valuation of Best Estimate under Solvency II – A country comparison

Response to the 1st wave of CPs

- CP26 - Draft Level 2 Advice on Technical Provisions – Methods and statistical techniques for calculating the best estimate
- CP27 - Draft Level 2 Advice on Technical Provisions – Segmentation

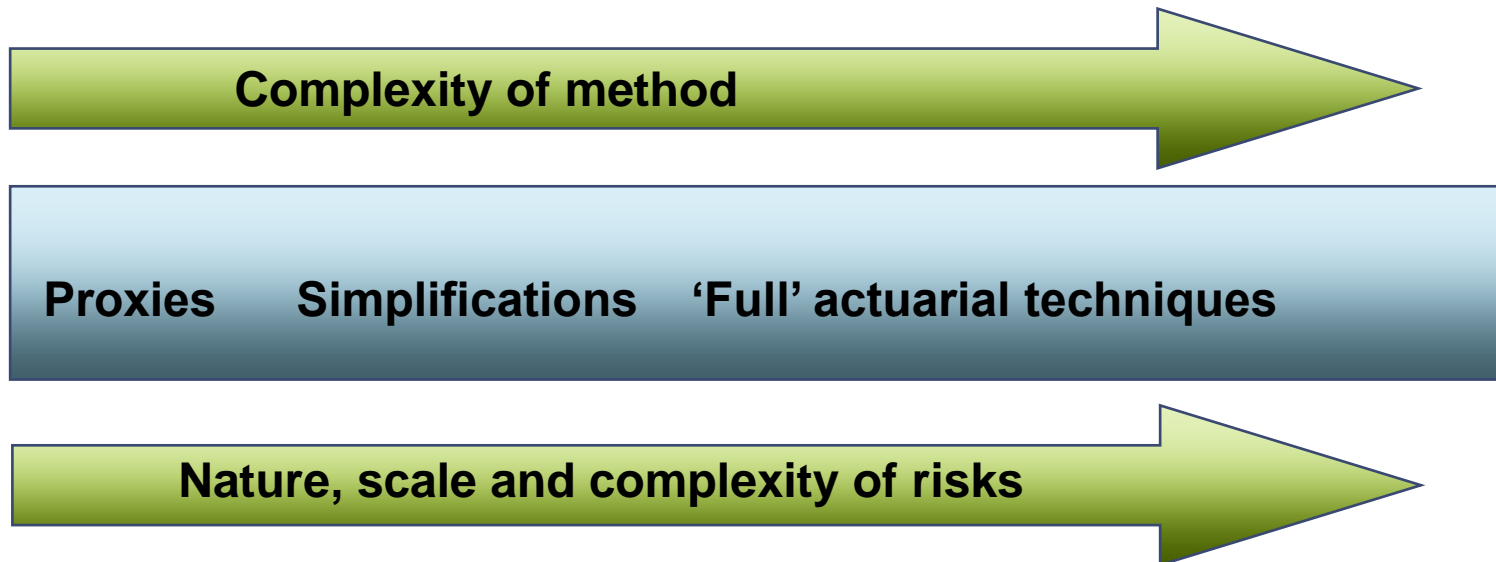
Non-life reserving discussions 2005 – 2009

Response to the 2nd wave of CPs

- CP39 - Draft Level 2 Advice on Technical Provisions – Best estimate
- CP40 - Draft Level 2 Advice on Technical Provisions – Risk free interest rate
- CP42 - Draft Level 2 Advice on Technical Provisions – Risk margin
- CP58 – Draft Level 2 Advice on reporting

Non-life reserving discussions 2005 – 2009

Continuum of methods for determining the best estimate reserve available to the actuarial function differing in degree of complexity

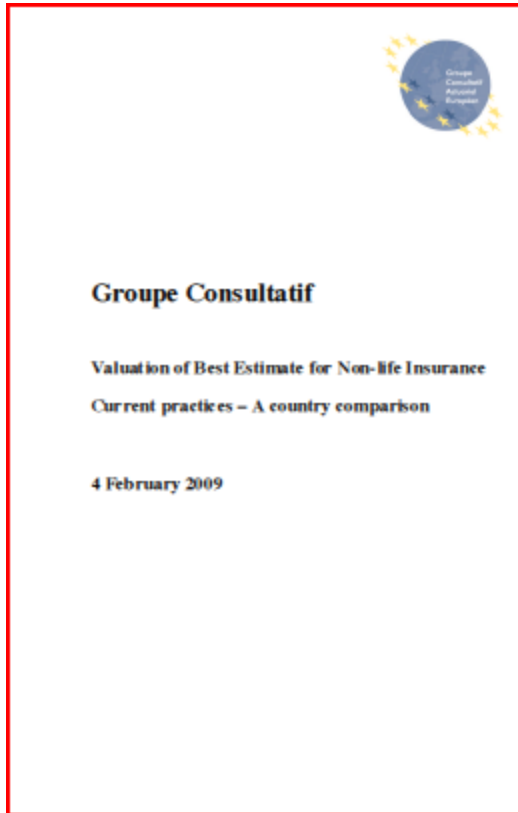


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GC Country Comparison paper -

Harmonisation challenges for technical provisions



- No standardised definition of a reserving 'best estimate' across Europe
- No alignment between local GAAP figures and Solvency II valuation principles
- Historic differences in coverage and in definitions of business classes
- Lack of appropriate data and systems for some organisations and countries
- The fact that best estimate valuation is not an exact science but should incorporate professional judgements

GC Country Comparison paper -

Areas of focus

Definition &
principles of current
best estimate for
non-life claims
reserves

Presentation of
claims reserves

Approach to current
premium provisions

Treatment of claims
expenses

Use of discounting

Existence of risk
margins

Other country
specific technical
provisions.

Communication of
reserve uncertainty

Professional
guidance on
reserving

Appointed actuary/
Actuarial opinion

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The Directive – Valuation of assets and liabilities

Market consistent valuation for assets and liabilities

“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.”

Article 74 Framework Directive

The Directive – Valuation of assets and liabilities



- ‘..**probability-weighted** average of future cash-flows, taking account of time value of money’
- ‘.. relevant **risk-free interest** rate term structure’
- ‘.. **all the cash in- and out-flows** required to settle the insurance liabilities ... over the lifetime thereof.’
- ‘.. ensure that the **value of the technical provisions** is equivalent to amount ..**require in order to take over and meet the .. obligations**’
- ‘..(**cost-of-capital rate**) shall be the same for all insurer...’

Source: Directive article 76’ Calculation of technical provisions’

Likely L2 advice – Valuation of the best estimate

“In order to capture the above uncertainty a (re)insurance undertaking shall ideally:

- Consider all possible future scenarios.*
- Estimate the likelihood/probability of each of those scenarios.*
- Calculate the cash-flows receivable/ payable by the insurer in each of those scenarios.*
- Discount the projected cash-flows to reflect the time value of money in each of those scenarios.*
- Take the probability weighted average of the discounted cash-flows from each of those scenarios.”*

CP 26 ‘Technical provisions – Elements of actuarial and statistical methodologies for the calculation of best estimate’

The Directive – Valuation of the best estimate

“The best estimate shall be calculated gross, without deduction of the amounts recoverable from reinsurance contracts and special purpose vehicles. Those amounts shall be calculated separately, in accordance with Article 80”

Article 76 Framework Directive

*“The result from that calculation shall be adjusted to take account of expected losses due to default of the counterparty. That adjustment shall be based on an **assessment of the probability of default of the counterparty and the average loss resulting there from (loss-given default)**”*

Article 80 Framework Directive

CEIOPS Consultation papers – L2 on technical provisions



Best estimate is not just about the number

- Requirements to
 - Justify appropriateness and robustness of technique
 - Demonstrate assumptions are realistic reflects nature of liabilities
 - Governance including validation and review
 - Management ownership
- Link to
 - Quantitative SII measures: Risk margin, MCR, SCR
 - Internal model
- Reporting internally and externally
 - .. and at the heart of the Actuarial Function's responsibilities

Current areas of discussion

- Approach to discounting
- Risk margin – no recognition of diversification
- Definition of 'reference entity'
- Overall consistency of framework
- Interpretation of 'future cash-flows' and 'probability weighted'
- Separate calculation for reinsurance
- Extensive reporting requirements

Some areas to consider ..

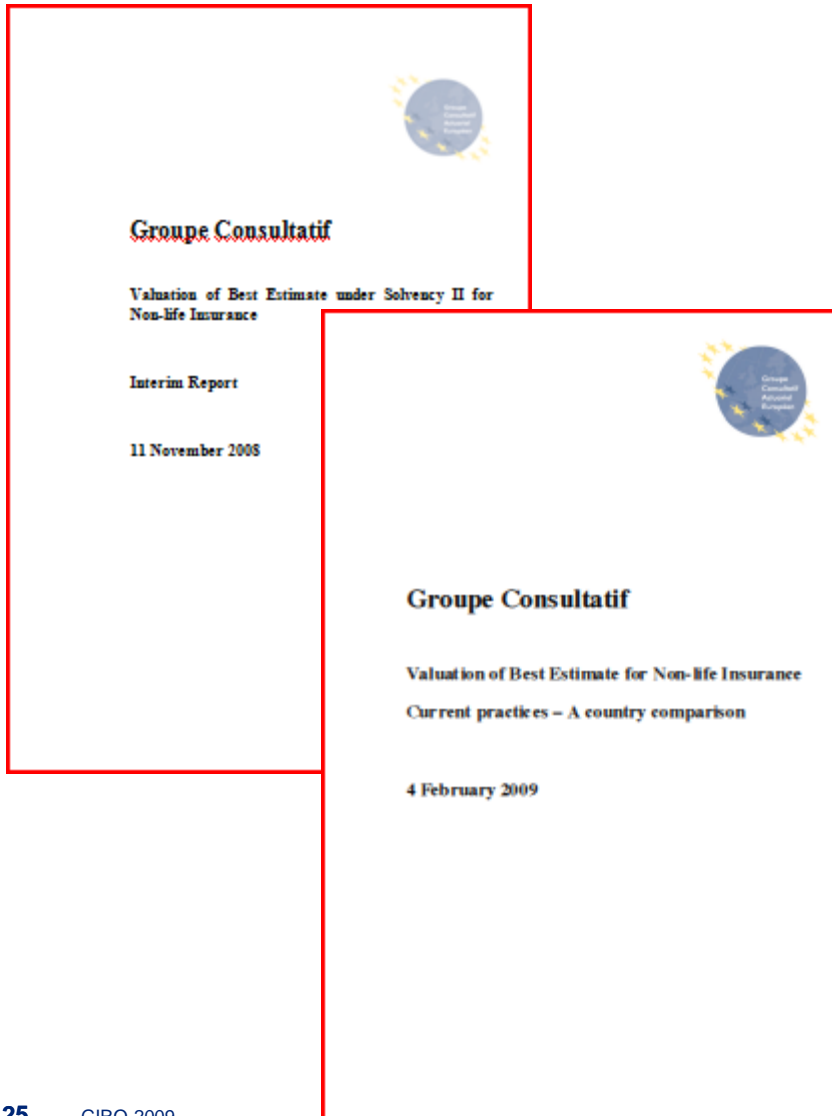
- New approach to premium reserves (no longer UPR, URR)
- Some parts of portfolio likely to be treated as life product
- New future segmentation of the business
- Use of stress & scenario testing
- Actual versus expected analysis – and other reporting requirements
- Control environment and documentation
- Role & responsibilities of Actuarial Function versus management body

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GC November 2008 paper:

(a response to the prescriptive tendency in 2006/ 2007)



Best estimate reserving process requires

- Judgement – Not a ‘cook book’
- Knowledge & experience – Role of Actuarial Function and the Administrative or Management Body
- Process – Governance/ control framework/ data/ reporting/ documentation/ disclosure

GC November 2008 paper:

Interpretation of Article 76

“Probability weighted average of future cash-flows taking into account the time value of money ..” (Article 76)

Interpretation:

- The best estimate equals the **mean on a discounted basis**
- The estimation should be **unbiased**
- A combination of **entity-specific and external parameters** should be used
- The cash-flows should reflect the company's **current and expected future state**
- Cash-flows should be discounted using the **risk-free** yield curve

GC November 2008 paper:

Interpretation of Article 76

Valuation of best estimate technical provisions

- It is not necessarily true that stochastic method will produce a more reliable best estimate than will a deterministic approach
- Weight to be given to losses with low probability and high cost
- Stress & scenario testing have important role to play
- Communication of uncertainty

GC November 2008 paper:

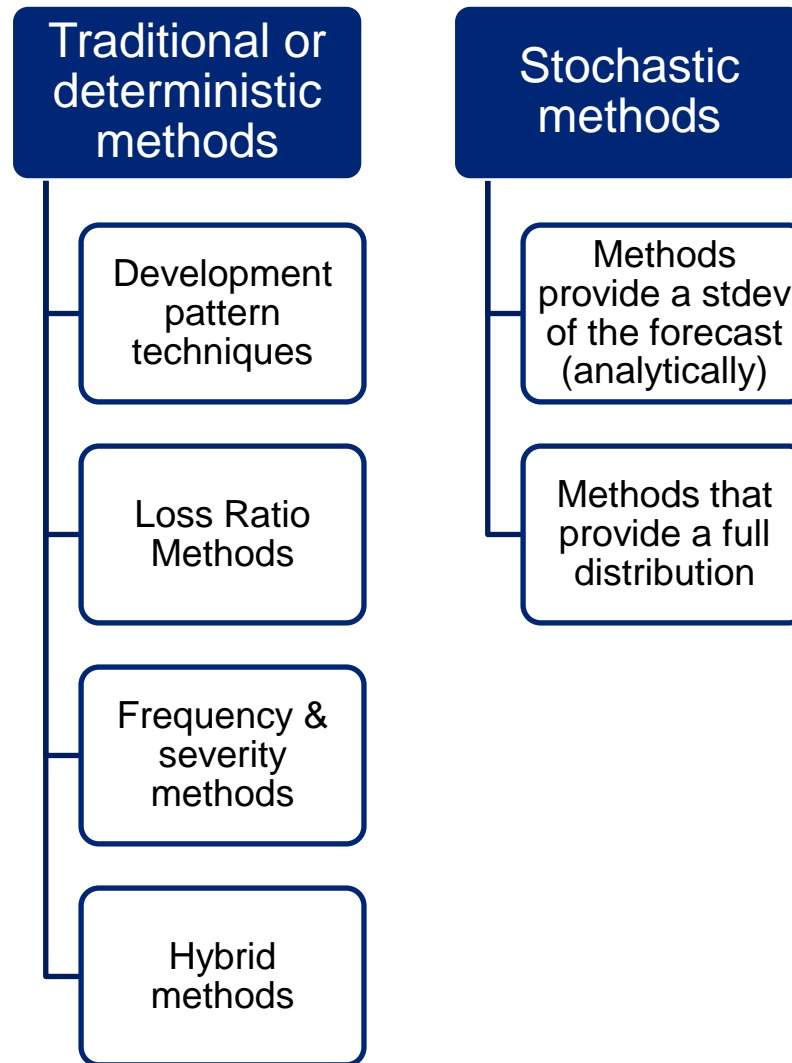
Interpretation of Article 76

On the question of stochastic vs deterministic:

- “To determine the mean, a model has to be used. But the model does not necessarily have to be simulation based, or even an algorithm.
- “It [the mean] could also be generated without estimating a series of cash-flows and their probability.
- “As a consequence we [the GC] do not believe that Article 76 precludes using deterministic models (3.2.1.1 of GC paper)

GC November 2008 paper:

Claims reserving methodologies and classifications



GC November 2008 paper:

Best estimate reserving process

The best estimate valuation of technical provisions is not just about a number, it is a process requiring expert judgement



GC November 2008 paper:

Best estimate reserving process

For an appropriate best estimate it should be ascertained that

- The model is fit for purpose;
- The limitations of the valuation and the valuation process must be understood by Administrative or Management Body;
- The data feeding the model must be verifiable and of sufficient granularity;
- Its underlying assumptions and parameters must be clear and explicit;
- It takes account and feasible clarify the main factors that affect or will affect the cash flows of the liabilities; and
- Uncertainties and sensitivities in the results must be communicated to the Administrative or Management Body.

In the event, very similar requirements were stated using similar words when CP26 emerged

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Article 47: Actuarial Function and reserving

Actuarial function

1. Insurance and reinsurance undertakings shall provide for an effective actuarial function to undertake the following:
 - (a) to coordinate the calculation of technical provisions;
 - (b) to ensure the appropriateness of the methodologies and underlying models used as well as the assumptions made in the calculation of technical provisions;
 - (c) to assess the sufficiency and quality of the data used in the calculation of technical provisions;
 - (d) to compare best estimates against experience;
 - (e) to inform the administrative or management body of the reliability and adequacy of the calculation of technical provisions;
 - (f) to oversee the calculation of technical provisions in the cases set out in Article 81;
 - (g) to express an opinion on the overall underwriting policy;
 - (h) to express an opinion on the adequacy of reinsurance arrangements;
 - (i) to contribute to the effective implementation of the risk management system referred to in Article 43, in particular with respect to the risk modelling underlying the calculation of the capital requirements set out in Chapter VI, Sections 4 and 5 and the assessment referred to in Article 44.

Article 47: Actuarial Function and reserving

- With Article 47, we are in a very different place compared with 2007 with proxies and the expectation that firms would not all have appropriate competencies for reserving
- Paragraph 2. of Article 47 cites “applicable professional and other standards” which Actuarial Function must demonstrate compliance with
- Therefore CP33 has started to tackle how these standards might be operated:

Options for technical standards from CP33, section 3.253

Option 1: The function should use technical standards developed by CEIOPS on Level 3.

Option 2: The function should rely on technical standards that are widely accepted in the industry and the profession.

Option 3: The function should rely on European technical standards to be developed and endorsed by a body of representatives of different stakeholders, including CEIOPS.

Article 47: Actuarial Function and reserving

CP33: section 3.255

- CEIOPS understands that those associations have legitimacy and expertise to develop such standards. As the methodologies and practices from actuarial professional bodies are widely accepted in the industry, there is no reason not to consider them appropriate for supervisory purposes. However, CEIOPS also envisages a high level of convergence in the guidelines to be used, which is not compatible with the use of guidelines issued by national actuary associations.

CP33: section 3.257

- CEIOPS favours option 3 as it is of the opinion that a European body, which may be an existing body or a newly established body, should develop the guidelines to serve as a basis for the performance of the tasks/duties in the context of the actuarial function, since these should be developed at an European level in accordance with the Solvency II regime. This does not prevent national associations from continuing their existing role in their jurisdiction but consistency would need to be maintained.

Article 47: Actuarial Function and reserving

So there is uncertainty – we can only guess as yet that reserving under Solvency II will be governed by a cascade through:

- Articles 74 – 81 of the Directive (Level 1)
- Level 2 Implementing Measures
 - (more or less similar to advice in CPs 26, 27, 39, 40 and 42)
 - In place by end 2010?
- Level 3 Measures
- National regulation
- Europe-wide technical standards
 - Developed partly with Groupe Consultatif involvement?
 - More or less compatible with existing
- National standards (eg. UK BAS)

- Hopefully skill and judgement will still be in the driving seat?

How may European technical standards impact reserving?

- GC created ASTF (actuarial standards task force) in March 2009 as part of response to CP33
- But soon after starting this work, ASTF learned that CEIOPS was expecting a substantive reply on technical standards from the Groupe before the end of September 2009
- GC paper in September 2009 entitled: “Professional Standards for the Actuarial Function under Solvency II”
- Standards in two categories:

Public interest standards

- Qualification standards
- Ethical standards
- Governance standards
- Communication standards

Technical standards

- Interpretative standards
 - More the responsibility of CEIOPS and national supervisory authorities
- Technical implementation standards
 - ASTF proposes technical implementation standards to be principles based, rather than detailed and prescriptive

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Conclusion

- Increased transparency & disclosure for technical provisions
- There is a push for development of additional actuarial guidance
- Solvency II will
 - Define mandatory tasks for the Actuarial Function
 - Impact the level of best estimate reserves for claims and premiums
 - Set guidelines for the calculation of risk margins
- For technical provisions there is a requirements to
 - Justify appropriateness and robustness of technique
 - Demonstrate assumptions are realistic reflects nature of liabilities
 - Stress & scenario testing have important role to play
 - Governance including validation and review
- Need for the Actuarial Profession to stay engaged (address challenges)

Conclusion

- Where will the reserving operative get his/her guidance?
 - Directive and CEIOPS guidance Will have become 'history'!
 - Actuarial function (in general insurance!) Will have become fact!
 - L2 and L3 guidance
 - The laws and regulations adopted by each member states (they should say the same thing about reserving)
 - European "technical" or "actuarial" standards – but how and who will set these and what will they say about reserving?
 - What role for local (eg UK Actuarial Profession) actuarial guidance?
- The discussions of principles or rules, cook-book or judgement, deterministic or stochastic – these will likely be revisited
- Proposed that standards should cover public interest, not just technical – how does this affect reserving actuaries
- Essential that actuaries, actuarial profession, and Groupe Consultatif remain engaged

Contact details

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Appendix

- Overview of reserving discussions 2005-2009