Solvency II – and technical provisions

39th ASTIN Colloquium – Helsinki – 3 June 2009

Annette Olesen
Pasi Laaksonen
Agenda

• Introduction to Groupe Consultatif – the role of the profession

• Status on Solvency II – and its challenges for actuaries
  • The Directive’s requirements
  • The latest consultation papers

• Why harmonisation of technical provisions across Europe is difficult

• The current discussion between CEIOPS and Groupe Consultatif
  • Best estimate papers

• Discussion on Actuarial Function
  • Likely impact on the role of the actuary

• Conclusion
Introduction to Groupe Consultatif

Established in 1978

Represent 35 actuarial associations from 32 countries
• Approx. 17000 actuaries

Aim: Communication on professional and technical matters
• to provide advice and opinions to various organisations of EU
  (Commission, Council of Ministers, Parliament, CEIOPS)
• not restricted to European issues

Current key focus areas:
• Solvency II
• The role of the actuary
• Gender issues
Groupe Consultatif – Solvency II Pillar I Non-life working group

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Framework Directive confirmed
• Adopted by European Parliament 22 April 2009, by Council 5 May 2009
Solvency II – A quick reminder

• Increased focus on effective risk management, control and governance
• Ownership Board & senior management
• Embedded in day-to-day activity and within strategic decision making

• Market consistent valuation of assets & liabilities
• Risk based forward looking solvency regime
• Increased disclosure and transparency

• Effective by 31 October 2012
Solvency II – A quick reminder

Quantitative Requirements
Assets and liabilities (including technical provisions), the Minimum Capital Requirement (MCR), the Solvency Capital Requirement (SCR standard formula / internal model), own funds, investments etc

System of Governance
Compliance with system of governance including risk management (including the ORSA), fit and proper requirements, outsourcing, internal controls, internal audit etc

RTS and SFCR
- Private quantitative and narrative information the undertaking submits to the supervisor
- Public information the undertaking is required to disclose to the market

SRP
The supervisory review of Quantitative Requirements, the System of Governance as reported in the RTS and SFCR

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 arms’ length transaction."

Article 74 Framework Directive

Value of technical provisions = best estimate + risk margin

"Insurance and reinsurance undertaking shall value the best estimate and the risk margin separately"

However, where future cash flows ... can be replicated reliably using financial instruments for which a reliable market value is observable ...

Article 76 Framework Directive
The Directive – Valuation of technical provisions

Conceptually in line with IFRS
The best estimate shall correspond to the probability-weighted average of future cashflows, taking account of the time value of money (expected present value of future cash-flows), using the relevant risk-free interest rate term structure.

The calculation of the best estimate shall be based upon up to date and credible information and realistic assumptions and be performed using adequate, applicable and relevant actuarial and statistical methods.”

Article 76 Framework Directive
Valuation of the best estimate
Work of CEIOPS/ GC coordination group

Continuum of methods for determining the best estimate reserve available to the actuarial function differing in degree of complexity
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 26Technical provisions –Elements of actuarial and statistical methodologies for the calculation of 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”

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)”
The Directive – Valuation of the risk margin

“. the risk margin shall be calculated by determining the cost of providing an amount of eligible own funds equivalent to the Solvency Capital Requirement necessary to support the insurance and reinsurance obligations over the lifetime thereof.

The rate used in the determination of the cost of providing that amount of eligible own funds (Cost-of-Capital) shall be the same for all insurance and reinsurance undertakings and shall be reviewed periodically.”

Article 76 Framework Directive
CEIOPS Consultation papers –L2 on technical provisions

- Uncertainties to be reflected
- Requirements to the valuation techniques
- Treatment of future premiums
- Documentation
- Role of Actuarial Function
- Segmentation & Data
- Definition of appropriate methods (emphasis on stochastic methods)

Best estimate
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 Functions’ responsibilities
Opportunities & challenges for the actuarial profession

- Push for more sophisticated methods
- Impact on level of best estimate reserves for claims and premiums
- Calculation of risk margins
- Link and consistency to internal model

- Communication of uncertainty

- Increased transparency
- Disclosure
- Actual versus expected analysis

- Data management
- Management information
- Governance
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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
Focus of Groupe Consultatif's country comparison

- 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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Best estimate reserving process requires
• Judgement – Not a 'cookbook'
• Knowledge & experience – Role of Actuarial Function and the Administrative or Management Body
• Process – Governance/ control framework/ data/ reporting/ documentation/ disclosure
Discussion - 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

Does this mean that stochastic reserving is required?
Discussion - interpretation of Article 76

Valuation of best estimate technical provisions
• Not necessarily true stochastic method will produce a more reliable best estimate than 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
Claims reserving methodologies and classifications

Traditional or deterministic methods
- Development pattern techniques
- Loss Ratio Methods
- Frequency & severity methods
- Hybrid methods

Stochastic methods
- Methods provide a stdev of the forecast (analytically)
- Methods that provide a full distribution
Best estimate reserving process

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

Similar requirements are also set out in CP26
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The Directive – The actuarial function

“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 …
c) to assess the sufficiency and quality of the data …
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 ..”

Article 76 Framework Directive
L2 advice/ discussion – Actuarial Function (CP33)

• Discussion on standards to be applied by actuarial functions

• CEIOPS envisage high level of convergence in guidelines

• Propose to be developed by body of representatives of different stakeholders

• Idea of annually produced written report on the mandatory tasks performed by the Actuarial Function
  • Steps undertaken
  • Shortcomings identified
  • Recommendations – how deficiencies could be addressed
Groupe Consultatif’s response

Issues to be considered for implementing measures regarding Article 47:

• The full framework and scope for professional standards
  • Minimum educational requirements
  • Ethical conduct (including conflict of interest)
  • Responsibility to those relying on actuarial output
  • Reasonable/unreasonable interpretation of all relevant forms of legislation or regulation.
Issues to be considered for implementing measures regarding Article 47:

• Balance and interaction between legislation and guidance or standards
  • open mind as to whether practitioner-influenced standards should form part of Level 3 guidance

• The respective roles and responsibilities of CEIOPS, national supervisors, the Groupe, its member associations and other parties in development and maintenance of professional standards, including interpretative standards

• The respective roles and responsibilities of the same parties in relation to monitoring of compliance with standards and, should it be necessary, enforcement and sanctions
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• 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 provisons 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)
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