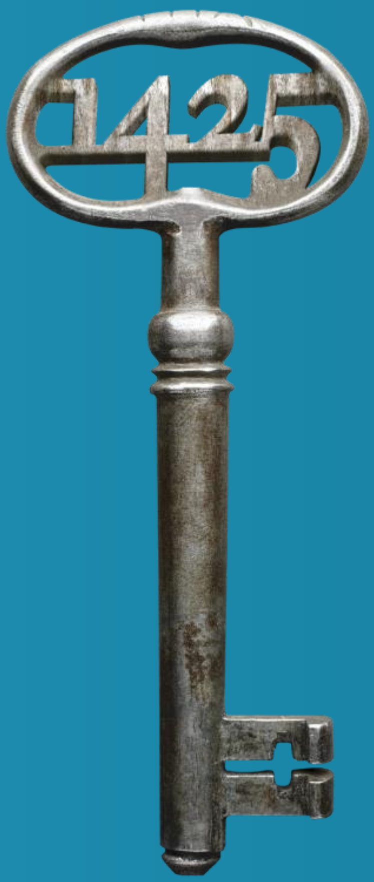

The actual function under Solvency II

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Actuarial Discipline

- The importance of a quantitative analysis of risks and probabilities has been ignored in Europe for a long time
- Although actuaries may not be the best advocates of their “trade”, the need for more substantive analysis, particularly in the insurance sector, is now recognised
- There is a growing need for people with actuarial skills
- The actuarial discipline needs to take account of the changing environment and of the lessons learned from the financial crisis

Threat: Paradise lost

- Actuaries use the opportunity of Solvency II to further complicate things
- Actuaries do not improve their communication skills and fail to inform their clients about the potential of Solvency II
- Actuaries start to believe in their models and are run by their models
- Actuaries fail to take on more responsibility because they believe that judgement is not something they should get involved in
- Actuaries do no longer produce jokes because they take themselves too seriously

Solvency II: a paradise for actuaries?

- Three pillar approach of Basel II
- Official recognition of the actuarial function as part of the new governance requirements in pillar 2
- Risk based solvency regime with two capital requirements: SCR and MCR
- Market consistent valuation of assets and liabilities
- Possibility to calculate the SCR using an internal model
- Recognition of the VaR approach already present under Basel II
- Group solvency calculation

Role of actuaries in the design of Solvency II

- Framework for consultation with active involvement of stakeholders including the Groupe Consultatif
- Calls for advice addressed to CEIOPS with consultation of stakeholders including the Groupe Consultatif
- Pillar 1 Working Group in CEIOPS (now EIOPA) with active participation of actuaries
- Framework Directive to be further implemented by EC and by EIOPA (technical v. political)
- Principle based approach and proportionality

Solvency II: 3 pillars and a roof

Group supervision
& cross-sectoral convergence

Groups are recognised as an economic entity
=> supervision on a consolidated basis
(diversification benefits, group risks)

Pillar 1: quantitative requirements

1. Harmonised calculation of technical provisions
2. "Prudent person" approach to investments instead of current quantitative restrictions
3. Two capital requirements: the Solvency Capital Requirement (SCR) and the Minimum Capital Requirement (MCR)

Pillar 2: qualitative requirements and supervision

1. Enhanced governance, internal control, risk management and own risk and solvency assessment (ORSA)
2. Strengthened supervisory review, harmonised supervisory standards and practices

Pillar 3: prudential reporting and public disclosure

1. Common supervisory reporting
2. Public disclosure of the financial condition and solvency report

(market discipline through transparency)

Governance system under Solvency II

- Must be effective, providing for sound and prudent management of the business
- Must comprise an adequate transparent organisational structure with a clear allocation and appropriate segregation of responsibilities and an effective system for ensuring transmission of information
- Must be subject to regular internal review
- Can no longer be implicit (written policy) and must be reviewed at least annually with prior approval by AMSB
- Supervisors must have the means, methods and powers to verify the system of governance and to require changes

Governance functions under Solvency II

- Risk management function including own risk and solvency assessment (ORSA)
- Internal control function, including compliance function
- Internal audit function (four eyes principle)
- Actuarial function (function in its own right)
- Combination of functions, except for internal audit, is possible in small and less complex undertakings
- Critical or important operational functions can be outsourced under certain conditions
- All persons who effectively run the undertaking or have other key functions must be fit and proper

Actuarial Function

- Key function in the new governance system under Solvency II
- Does not have to be carried out by an actuary
- No requirement to have an in-house actuary
- Person exercising the function must be fit and proper
  - Professional qualification, knowledge and experience must be adequate to enable sound and prudential management (fit)
  - Must be of good repute and integrity (proper)

Article 48(2) Framework Directive

- No monopoly for persons with an actuarial qualification, i.e. substance over form
- In accordance with Article 48 (2) of the Solvency II Framework Directive, the actuarial function shall be carried out by persons:
  - who have knowledge of actuarial and financial mathematics, commensurate with the nature, scale and complexity of the risks inherent in the business
  - who are able to demonstrate their relevant experience with applicable professional and other standards

Tasks of the actuarial function (1)

- 1) Coordinate / oversee the calculation of TP
  - e.g. assess the uncertainty associated with estimates
- 2) Assess the sufficiency and quality of the data used in the calculation of TP
  - e.g. assess whether the information technology systems used sufficiently support the actuarial and statistical procedures
- 3) Compare best estimates against experience
  - e.g. review the quality of past best estimates and use the insights gained from this assessment to improve the quality of current calculations

Tasks of the actuarial function (2)

- 4) Inform the AMSB of the reliability and adequacy of the calculation of TP
  - e.g. reasoned analysis on the reliability and adequacy of the calculation of TP and on the sources and the degree of uncertainty of the estimate of the TP
- 5) Express an opinion on the overall underwriting policy
  - Sufficiency of premiums to be earned to cover future claims and expenses & impact of options & guarantees
  - Effect of inflation, legal risk, change in portfolio, etc.
  - Progressive tendency to attract or retain insured persons with a higher risk profile (anti-selection)

Tasks of the actuarial function (3)

- 6) Express an opinion on the adequacy of reinsurance arrangements, considering:
    - the undertaking's risk profile and underwriting policy
    - the credit standing of the reinsurance provider
    - the expected cover under stress scenario's
    - the amounts recoverable from reinsurance and SPV's

- 7) Contribute to the effective implementation of the risk management system, in particular with respect to the risk modelling

Actuarial Report

- The annual report to be submitted to the AMSB must:
  - Document all tasks that have been undertaken by the actuarial function and their results
  - Identify clearly any deficiencies
  - Give recommendations as to how such deficiencies should be remedied
- Although this is an internal report, supervisors may want to obtain it and may indeed ask the actuary for other more topical information, where needed

Actuarial Standards

- EIOPA will develop actuarial standards as part of the guidance concerning the actuarial function
- It is likely that EIOPA will work on this issue very closely with the European actuarial profession
- Eventually, there should be an independent body to develop actuarial standards taking into account the work carried out by the actuarial profession in the EU and worldwide:
    - Actuarial standards should not only have supervisory perspective
    - All stakeholders should be involved in the process

Consequences for actuarial profession

- Solvency II puts the actuarial profession on the map
- One can expect a continuous increase in the demand for persons with actuarial skills, in (re) insurance undertakings, supervisory agencies, banks and other financial institutions
- Actuaries will have to develop suitable techiques and skills to communicate with management, with supervisory authorities and with the outside world
- Many small and medium-sized insurers will call on the services of outside actuaries

Messages from John Kay

- Extreme observations come from off-model events, not from improbable events within models
- Need to explore the limits of probabilistic reasoning
- Attach more importance to stewardship
- Is the efficient market hypothesis still justified?
- Do we have a “homo economicus”?
- Actuaries should exercise more judgment and frame this in convincing narratives rather than to rely on spuriously accurate mathematical projections based on past experience

EIOPA Action

- Interim guidelines prepared by EIOPA to ensure that industry and supervisors prepare for the start of Solvency II
- Interim guidelines are not legally binding
- Interim guidelines are not an advance application of Solvency II
- Interim guidelines adopted by EIOPA in September 2013 for application 1 Jan 2014

Interim Measures – Issues raised (1)

- Take appropriate measures to address potential conflicts of interests, if the undertaking decides to add additional tasks or activities to those of the actuarial function
- The actuarial function should identify any inconsistency with the Solvency II requirements for the calculation of TP and propose corrections as appropriate
- The actuarial function should assess the consistency of the internal and external data used in the calculation of TP against the data quality standards of Solvency II and, where relevant, propose improvements

Interim Measures – Issues raised (2)

- When the actuarial function provides its opinion on the underwriting policy and the reinsurance arrangements, it should take into consideration the interrelations between these and the TP
- During the pre-application process for an internal model, the actuarial function should
  - Contribute to specifying which risks within its domain of expertise are covered by the internal model
  - Contribute to clarify dependencies between these risks and other risks

Opportunity: Paradise reinstaured

- Actuaries become strong defenders of the KISS principle
- Actuaries have come to the conclusion that their role is much enhanced if people actually understand what they are talking about
- Actuaries take a critical look at their models and question them regularly based upon experience from the real world
- Actuaries are not afraid to take on responsibility and to advise management
- Actuaries produce jokes about other professions and make money out of it

Issues in EIOPA Guidelines

- In cases where calculation and validation of TP is done by the actuarial function, the undertaking should have in place processes and procedures in order to avoid conflicts of interest and ensure appropriate independence, subject to proportionality
- The methodologies used to calculate the TP should be validated, by validation tools such as back-testing against past experience, giving due consideration to changes over time

Concluding Remarks

- Solvency II was introduced as a principle based regulatory regime and attempts to over-regulate should be resisted: there is no need to regulate everything
- Actuarial science will benefit from the introduction of a risk based solvency regime as its application in practice will show that there is no ready answer to all questions
- Actuaries must help regulators to better understand the limits of what is possible under Solvency II
- More attention should be paid to the qualitative aspects of solvency
- A perfect solution is not of this world

Concluding Remarks

- Delay on Solvency II mainly caused by financial crisis
- Need to finalise discussions and to start the regime as soon as possible
- Use extra time to “improve” treatment of long term guarantees
- Actuaries must help regulators to better understand the limits of what is possible under Solvency II
- More attention should be paid to the qualitative aspects of solvency
- A perfect solution is not of this world

Questions?