

The Actuarial Profession
making financial sense of the future

The actuarial function under Solvency II: The impact on non-life insurers
Tony Jordan - Chief Actuary, ACE European Group



Functional Analysis

© 2010 The Actuarial Profession - www.actuaries.org.uk

Important Disclaimer

The views expressed in this presentation are my own for the purposes of provoking discussion and do not necessarily reflect the views of ACE or The Actuarial Profession

Actuarial Function

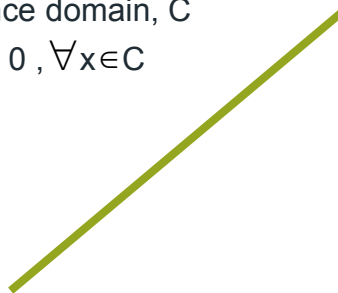
- Introducing the actuarial function

$$@ (x)$$

- What are its properties?
- How would we like it to be defined?
- Is it well behaved?

Actuarial Function

- Over the compliance domain, C
- $@'(x) > 0$, $@''(x) = 0$, $\forall x \in C$



- The Actuarial Function is Monotonic
- Strictly Increasing, and possibly somewhat linear

Actuarial Function

$$\int @ (x) dx = ?$$

- Can the actuarial function be integrated....
..... with the current actuarial department of a Company?

Actuarial Function

$$@'(x) = ?$$

- Or should the actuarial function be differentiated....
..... from the wider actuarial team?

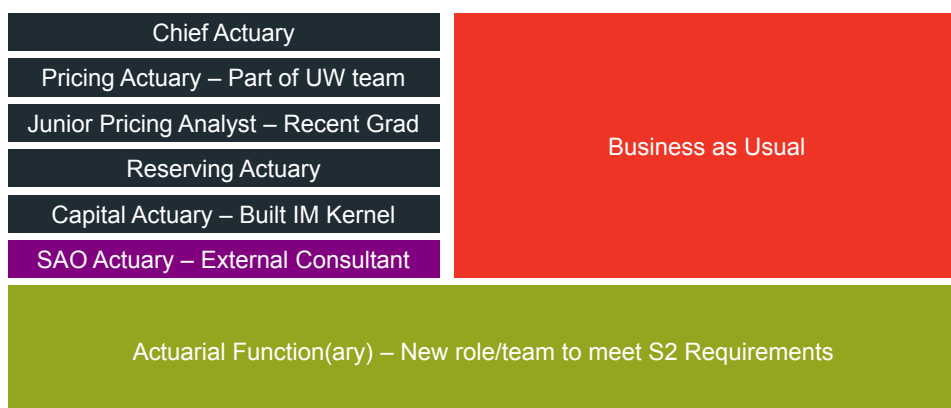
The Fit?

Chief Actuary	AF
Pricing Actuary – Part of UW team	AF or Lack of Independence from Business?
Junior Pricing Analyst – Recent Grad	Doesn't meet Experience Requirements?
Reserving Actuary	AF
Capital Actuary – Built IM Kernel	AF or Lack of Independence?
SAO Actuary – External Consultant	Needs/Wants to be part of AF?
Additional Resource to Meet S2	AF

© 2010 The Actuarial Profession • www.actuaries.org.uk

6

The Fit 2



© 2010 The Actuarial Profession • www.actuaries.org.uk

7

Some Interesting Challenges

- Underwriting Policy
- Adequacy of Reinsurance
- Independence

Underwriting Policy

- Level 1 – Directive Article 48:
- “...express an opinion on the overall underwriting policy”

Underwriting Policy

- Level 2 - Former CP33:
- The actuarial function shall annually express an opinion on the overall underwriting policy...and report these views to the ..administrative body...
- Not only address possible deficienciesbut also suggestions for improvements
- Not views on every policy but underwriting in general, scope determined by relevance of issues to administrative body
- Opinion should at least include sufficiency of premiums (CEIOPS believes that the actuarial function should be aware if undertaking is underwriting at a loss, for example, and the consequences of doing so) and consideration of inflation, legal risk, mix, anti-selection and adequacy of bonus malus systems implemented in specific lines of business.

Underwriting Policy

- Level 3 - TBA
- Groupe Consultatif has produced recommendations on guidance including an illustrative provisional draft of technical implementation standards. Under Underwriting policy, some of the more interesting requirements are:
- **Compliance** To the extent possible, using sampling methods, the actuarial function shall test the compliance of the company, and those acting as agents on its behalf with binding authority, with its own underwriting policies and rules
- **Good Practice** The review of the underwriting policy shall include consideration of whether the company is treating customers and potential customers fairly through its underwriting principles, procedures and practices and whether the approach to underwriting is in line with good practice in the market and not contrary to the general good.

Underwriting Policy

- Data and Documentation Issues (Are Underwriting policies well documented and held centrally?)
- Obtaining administrative body's opinions on what constitutes relevant issues (mandate from board?)
- Sufficiency of premiums (criteria, granularity), and in whose opinion (maybe differences of opinion should be aired)
- Actuaries relationship with the business on the pricing and underwriting side is hard won
- Compliance focus may lead to lack of engagement?

Actuaries and Underwriters – Helping the relationship?

Don't you ever feel tempted?



Adapted from a recent international UW Conference discussing Actuaries and UW's working together
Image from WikiCommons (author Wayne Short)

Reinsurance Adequacy

- Level 1 – Directive Article 48:
- “...express an opinion on the adequacy of reinsurance arrangements”

Reinsurance Adequacy

- Level 2 - Former CP33:
- ...the opinion to be expressed by the actuarial function should include an opinion on the significant reinsurance arrangements as well as expected cover under stress scenarios in relation to the underwriting policy and the adequacy of the calculation of technical provisions arising from reinsurance...

Reinsurance Adequacy

- Level 3 - TBA
- Groupe Consultatif has produced recommendations on guidance including an illustrative provisional draft of technical implementation standards. Under reinsurance adequacy, some of the more interesting requirements are:
- **Security of reinsurers** ...shall include review of the diversification of reinsurance cover, ...review of the security provided by all significant reinsurers and the risk that one or more of them may be unable or unwilling to pay claims in full and in a timely fashion
- **Financial reinsurance** Particular attention shall be paid to any ..contracts of financial reinsurance.. And whether it has been adequately and transparently disclosed.

Independence

- Level 2 - Former CP33:
- ...the requirement on the actuarial function to express an opinion on the overall underwriting policy and the adequacy of the reinsurance arrangements does not imply that the actuarial function may not be involved in the original decisions on these issues. However "justification" of decisions taken by the actuarial function or with its involvement requires more detailed explanations and a decided examination of other possible options...
- ..to provide its opinions free from influence from other functions and the administrative ...body the actuarial function shall be constituted by persons who have a sufficient level of independency..
- ...In forming and formulating its own view, the actuarial function should be objective and free from influence of other functions pr the administrative..body and provide its opinions in an independent fashion...

Independence

- ..CEIOPS believes that in large undertakings and undertakings with more complex risk profiles the key functions should generally be performed by separate units
- proportionality for small less complex entities may allow functions (other than internal audit) to be combined or carried out by one person
- ...an adequate interaction between the key functions should be fostered..
- ..the remuneration policy should ..contain specific arrangements that take into account the ...persons who have the key functions..

Lloyd's Guidance

- Lloyd's is not intending to introduce any requirements going beyond the general view of the profession. In the meantime, agents should ensure that they consider how they will address the requirements, based on the information currently available (Lloyd's Guidance – Solvency II Detailed Guidance Notes March 2010, Section 1 – System of Governance)
 - Dry Run Expectations:
 - Identified how the requirements for an actuarial function will be met, in particular where it is planned to outsource the function
 - Drafted terms of reference for the actuarial function
 - Designed an internal reporting framework to ensure the formal requirements are met
 - Be able to demonstrate consistency between the actuarial function processes and internal model development
- (Dry Run Submission Template)

Key Steps

- Decide whether enhancement of existing actuarial involvement in the business or a separate regulatory function
- Seek Board and management engagement of what they would like from the actuarial function
- Draw out the org chart (Group, embedded actuaries, external consultants, etc)
- Create a vision document for the actuarial function within the organisation
- Drive from the business out rather than from the regulator in.

Questions or comments?

Expressions of individual views by members of The Actuarial Profession and its staff are encouraged.

The views expressed in this presentation are those of the presenter.

