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making financial sense of the future

Actuarial Aspects of Internal Models under Solvency II

Internal Models Working Group
February 2009 Sessional Paper

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1

Agenda

- Introduction
- Actuarial Issues
- Next Steps
- Discussion (That is your responsibility)

Focus of this Working Party

- Implications for actuaries preparing internal models related to UK business
- What are the issues - what is needed? - What is available? - What research is underway? - What are the barriers to best possible practices?
- Big Issues

Sources of Internal Model Advice

- EU Directive
- Insurance Supervisors--IAIS, CEIOPS, FSA, other national supervisors...
- Actuaries--IAA, Groupe Consultatif, national actuarial organisations...
- Industry--CFO and CRO Forums...
- Others--Working parties, consultants, companies, individuals, ...

4

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Big Issue - Co-dependency/Correlation

Good practice

- Build co-dependencies from mid range events.
- Investigate causal drivers as well as statistics.
- Validate new risks by mapping to similar risks
- Ensure consistency of use – RBS, ICA, ECA
- Stress test co-dependency part of model

Research

- Theoretical approaches to diversification
- Interaction with fungibility and liquidity

5

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Big Issue - Time Horizon

Good practice

- Run off and terminal value approaches possible.
- Terminal values recognise sentiment at settlement
- Option to use differing accounting recognition of liabilities
- New business standard part of model.
- Projecting capital standard by using proxies

Research

- Terminal provisions; hedgeable and non hedgeable risks
- Policyholder and management behaviour over run off
- Reconciliation of terminal value and run off measures

6

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Big Issue - Data for internal models

Good practice

- Solid systems for data capture and validation
- All data – internal, external, third party – validated as far as possible
- Use of expert opinion valued, but documented and subject to challenge

Research

- Possibilities of industry databases
- Analysis of drivers rather than just statistics of the data

7

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Big Issue - Extreme Events

Good practice

- More structured use of:
 - Expert opinion
 - Catastrophe models
 - ESGs
 - Fat-tailed distributions
 - Historical scenarios

Research

- Improvements to catastrophe models
- Avoidance/reduction of bias in expert judgment

8

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Big Issue – Group Issues

Good practice

- Intra-group transactions => formal + central register
- Holding company risks => full assessment
- Groupwide risks => consider contagion & reputation
- Group diversification => sensitivities + fungibility
- Governance of group model => documented policies

Research

- Practical issues of group models local embeddedness vs consistency across group
- Materiality and inclusion of non-regulated entities & group tax

9

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Next Steps

- The Practice Executive Committees' Research Committees will take forward the areas identified for further research
- This working group will close
- New cross-practice internal models working group for further report card in 2010/2011?

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