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The Geneva Association - General Secretariat - 53, route de Malagnou - CH-1208 Geneva
Tel.: +41-22-707 66 00 - Fax: +41-22-736 75 36 - secretariat@genevaassociation.org - www.genevaassociation.org

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Layout & Distribution: Valéria Kozakova

Progress on Solvency II and the Measurement of Capital

Alexander Grawert

Questions for discussion

- What is the status of risk capital measurement in the industry?
- To what extent are solvency initiatives currently aligned with 'best practice' Economic Capital models?
- Will regulatory capital requirements rise as regulatory requirements become more aligned with risk and with economics?

Experience to date – Major developments in both Economic Capital and regulatory practice

■ Economic capital development has accelerated over last 5 years

- Extensive development work carried out in Europe and Australia
 - Internal capital models a requirement in the UK, and strongly encouraged in Australia
 - All members of the CRO Forum have implemented, or are in the process of implementing, Economic Capital frameworks
 - Several other European insurers have put in place some form of Economic Capital framework
- Some work being done by major US insurers
- Some work also being done by selective Asian insurers

■ Extensive developments in regulatory framework

- IAIS principles – representing a core foundation for best practice regulatory requirements
- Solvency II project – an attempt to both harmonise prudential regulation for European insurers and align regulation with underlying economic risk
- Various regulators (e.g. DNB, FSA, FOPI, APRA) – have taken significant measures to re-align prudential regulation with economic risk, and with industry risk management best practices

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Internal frameworks are diverse and applications in their infancy

■ Diversity in industry frameworks

- Across the insurance industry there is far less convergence in a common framework than in banking - different economic capital metrics and frameworks have been implemented:
 - There is no single 'best practice' metric or approach
 - The primary difference is the time horizon over which economic capital is measured
 - The standardised one-year economic capital framework is the most common
 - Over time, models should and do evolve to address specific business unit problems
- Insurers are investigating multi-year measures for solvency purposes – even where one year frameworks are in place

■ Active application of internal models in its infancy

- Industry acceptance of the importance of risk based measurement of capital
- Large differences in how far risk analysis is embedded in the organisation and the extent to which it is used for decision purposes ...
- ... which is uncorrelated with the measurement sophistication of the modelling
- A formal process for active capital management is beginning for most insurers
- Metrics are still rarely/inconsistently used for day-to-day product design and pricing, although this is about to change

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Solvency II principles face several hurdles in being translated into regulatory reality

- Shift in regulatory mindset from “monitoring of capital levels versus minimum” to “pro-active steering of companies towards target capital levels”
 - Recognition that the needs and capabilities of smaller/larger and multi/mono-line insurers will be different
 - Concerns over pro-cyclicality
 - Concerns over diversification benefits
- Supervisory resources will be significantly stretched by more complex approaches
 - Transition difficulties between old, non-risk based and new, risk based approaches
 - Increase in extent and sophistication of required supervisory resources
- Current limited level of coordination amongst supervisors leads to limited reflection of Group issues
 - Local/solo solvency is primary concern
 - Creates a disconnect between how large Groups are supervised and how they are managed

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Alignment between regulatory practice and Economic Capital has therefore been difficult to achieve to date

Three typical ‘disconnects’ between Solvency II principles, regulatory reality and industry practices

- | | Implications |
|--|--|
| <p>1. Simple approaches adopted in order to ensure stability, and to ensure that less sophisticated insurers can comply</p> <ul style="list-style-type: none"> – Reserve levels double-count prudence and non-risk related – Adoption of simple factor-based approaches for calculating solvency capital requirements – Simplistic treatment of reinsurance/risk transfer and non-standard capital sources | <ul style="list-style-type: none"> ■ Companies do not receive benefits of improved risk measurement techniques ■ Conservatism creates non-fully risk based system allowing arbitrage opportunities to be created |
| <p>2. Blurring of ‘minimum’ and ‘control’ levels</p> <ul style="list-style-type: none"> – Minimum levels set at too high a level relative to control levels – Control levels becoming seen as being ‘de facto’ minimum levels | <ul style="list-style-type: none"> ■ External and market reaction to breaching control levels leads to ‘super-solvent’ market |
| <p>3. Excessive focus on ‘traditional’ supervisory responsibilities</p> <ul style="list-style-type: none"> – Insufficient focus on disclosure standards – Excessive focus on solo solvency tests, and reliance on simple additive tests/deductions for assessing Group issues – Requirements for internal / standard models narrowly focused on regulatory ideal | <ul style="list-style-type: none"> ■ Disconnect between internal management of large groups and supervision creates unnecessary constraints ■ Disconnect between compliance models and management models |

Implications

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As Solvency II is aligned more closely to the true risks and economics, more differentiation *should* emerge

- There is **no reason for regulatory capital requirements to rise, or fall**, under a more risk-based regime
 - This will ultimately depend on the level of certainty required by regulators, which to some extent is a political decision
 - There is nothing to indicate that current average levels are too aggressive/conservative
- Regulatory capital requirements **should** however show **more differentiation** between products and markets
 - Different product characteristics (term, premium payment, bonus payment, guarantee structures, etc . . .) will drive the risks
 - The degree to which capital requirements will capture these differences will define the level of differentiation in results
 - Standardisation of capital requirements across markets with very different product structures could lead to unintended consequences
- **In theory**, Economic Capital should be **higher** than regulatory capital requirements
 - Economic Capital normally set to imply a very low (say, 1 in 1,000) risk of insolvency
 - Economic Capital is an internal target level, whereas regulatory capital represents a threshold for regulatory intervention

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Leading insurers will use Solvency II to improve their competitive position

Considerations on competitive position in...

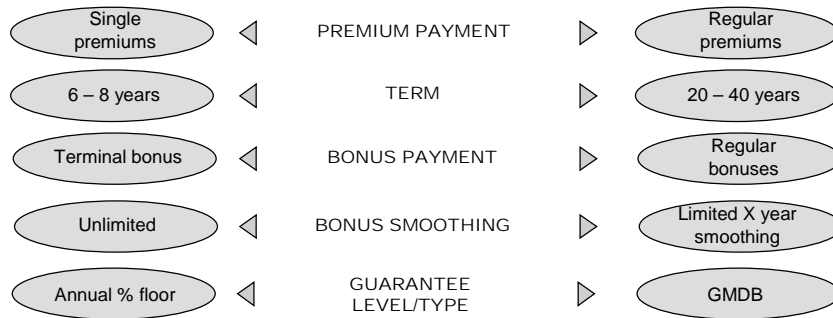
	...risk taking	...risk carrying
Align capital requirements with risk	<ul style="list-style-type: none"> ■ What risks can we better price than competitors? ■ How much can we charge for the different risks we take? ■ ... 	<ul style="list-style-type: none"> ■ Is the company earning an appropriate return on the risks it is carrying? ■ ...
Improve risk management capabilities	<ul style="list-style-type: none"> ■ How can we structure covers optimally so that risks can be managed efficiently? ■ ... 	<ul style="list-style-type: none"> ■ What levels of risk can we afford? ■ What risks can we better manage than competitors? ■ ...
Create a level playing field across FS	<ul style="list-style-type: none"> ■ For which risks are we best placed to originate cover? ■ ... 	<ul style="list-style-type: none"> ■ Which risks are better carried by different financial institutions? ■ ...
Example areas impacted	<p style="text-align: center;">▼</p> <ul style="list-style-type: none"> ■ #1 Product strategy 	<p style="text-align: center;">▼</p> <ul style="list-style-type: none"> ■ #2 Capital management

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New solvency rules generate an environment where new risk drivers need to be considered

- Example: Life Insurance -



- Some key questions yet to be answered:
 - How will the product characteristics affect the capital requirements?
 - In particular the MCR and the standard approach SCR (which will be applied across geographies)
 - How will competition react to divergence in capital requirements?

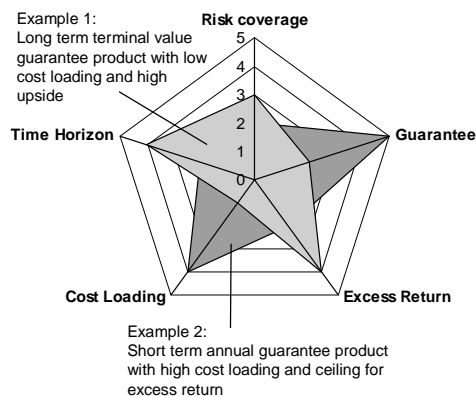
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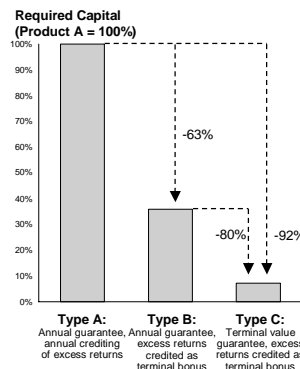
Product design has an immediate impact on the capital requirements of insurance products

- Example: Life Insurance -

The Product Design Grid



Example: Required Capital for Different Forms of Guarantees



► Insurers have the opportunity to optimize the product design under risk and return considerations

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Two Key Challenges – for Regulators and for the Industry

- **For regulators:**

- How can industry developments in risk measurement and management technology be practically used to help bridge the gap between Solvency II principles and prudential regulatory reality?

- **For industry:**

- How can the industry develop common methodological approaches and disclosure standards for Economic Capital, in parallel with other initiatives such as European Embedded Value, in order to better support a risk-based regulatory approach?
- How can the industry leverage risk and solvency developments to enhance the productivity of the sector?