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making financial sense of the future

Solvency II Seminar: Responsibilities of the Actuarial Function  
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# Risk Management

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## Agenda

- Risk management system
- Risk and actuarial skill sets
- Evolution of Actuary into CRO

## Risk management system

### Article 41 – General governance requirements

- Article 42 – Fit and proper requirements
- **Article 44 – Risk management**
- Article 45 – Own risk and solvency assessment
- Article 46 – Internal control
- Article 47 – Internal audit
- Article 48 – Actuarial function
- Article 49 - Outsourcing

- Risk management function is seen as key component of the risk management system

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## Why have a risk management function?

- Silo risk functions:
  - Actuarial
  - Finance
  - Investment
  - Reinsurance
  - Underwriting
  - ...and so on
- Risk management function aligns common core competencies of silo risk functions

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## Key tasks

### Risk management function

- Define risk policy and risk appetite
- Capital management
- Identify conflict and conflict resolution
- Risk register
- Measuring operational risk
- Manage non-quantifiable risks
- Identify emerging risks

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## Key personnel

### Chief Risk Officer (CRO)

- Establish integrated risk management framework for all aspects of risks across the organisation
- Works to ensure that the company is compliant with government regulations
- Responsibility of making earnings more predictable and less likely to reduce in future
- Provide overall leadership, vision and direction for Enterprise Risk Management (ERM)
- Typically reports into CEO or CFO

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## The role of risk management function

### EIOPA requirements

- “Insurance and reinsurance undertakings shall have in place an effective risk-management system comprising strategies, processes and reporting procedures necessary to identify, measure, monitor, manage and report, on a continuous basis the risks, at an individual and at an aggregated level, to which they are or could be exposed, and their interdependencies.
- That risk-management system shall be effective and well integrated into the organisational structure and in the decision-making processes of the insurance or reinsurance undertaking with proper consideration of the persons who effectively run the undertaking or have other key functions.”

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## The role of risk management function

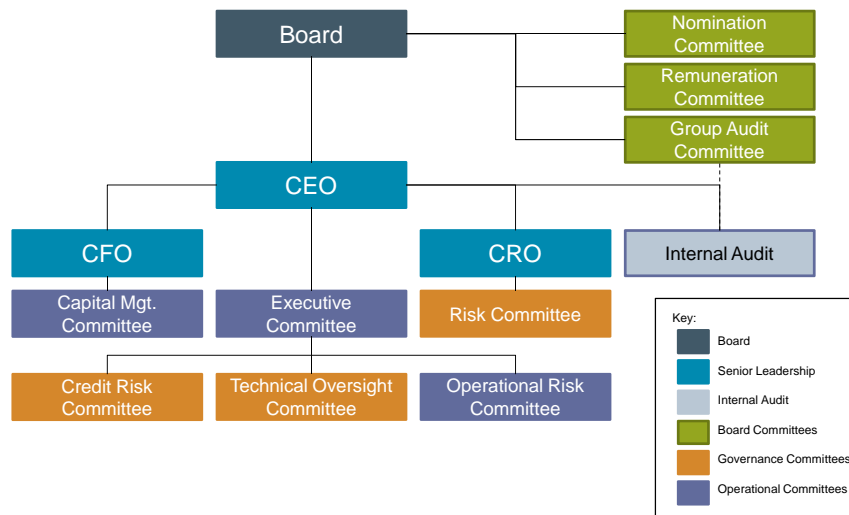
### Good corporate governance

- Demonstrate that strong corporate governance exists, to satisfy:
  - shareholders
  - rating agencies
  - regulators
- Improve economic value of the firm
- Reduce earnings volatility

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## Corporate governance – key highlights



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## A mature risk management function

Area	Status when mature
Risk appetite	Fully defined, communicated and used for decision making across the firm
Risk policy	Signed off by the Board, communicated and used for decision making across the firm
Board engagement	Clearly defined role, including terms of CRO engagement and responsibility of the Board
Risk register	Risk owners clearly defined and register updated on regular basis
Risk language	Consistently defined and used across the firm
Risk culture	Embedded in BAU decision making
Performance and reward	Aligned with ERM process
Solvency assessment	These should be comprehensive and proportional to size of firm
Reporting process	
Internal audit	
Business continuity plan	

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## Is there any room for the actuarial function?

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**...or is risk management part of the actuarial function?**

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## Agenda

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- Risk Management Function
- Risk and actuarial skill sets
- Evolution of Actuary into CRO

## Skill Sets

### What skill sets are required for Strong Corporate Governance?

- Are the actuarial and risk management skill sets complementary for this purpose?
- How do they differ?
- When should one be chosen over the other?

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## Skill sets for the CRO

- Taking a holistic approach to risk and risk management
- Ability to look at the wider risk environment
- Able to views risk as both an opportunity and a threat
- Able to assess both company's growth and profit requirements
- Capable of being a strategic adviser and establishing close relations to the business
- Use of judgment to establish practical risk policies and risk frameworks
- Ability and knowledge to develop risk management systems that provide forward looking Key Risk Indicators (KRIs) that will identify risks threatening the business

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## Skill sets of the Actuary

- Technical/problem solving ability
- Use of actuarial judgment in setting assumptions based on historical trends and indicators
- Identification of risks relating to future financial events in particular when the amount of a future payment or the timing of when it is paid is uncertain.
- Able to communicate fundamental actuarial ideas and arguments taking into account the needs of the audience.
- Have the highest professional and ethical standards – the 'actuarial brand'.

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## Inter-relationship between the actuarial & risk management functions

### Broad ways in which these functions can work together

- Actuarial Function contributing to the effective working of the Risk Management Function to meet their regulatory obligations
- Actuarial Function working together with the Risk Management Function to further the firm's commercial objectives.
- Actuarial Function taking the lead to ensure that their regulatory obligations are met.

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## Contribution by the actuarial function

### Implementation of an effective Risk Management System

- This system will comprise strategies, processes and reporting procedures necessary to identify, measure monitor, manage and report on the risks that firms could be exposed to.
- Report these risks on a continuous basis both at an individual or aggregate level
- Well integrated into the organisation structure and decision making processes
- Covers all risks whether or not they are included in the solvency capital requirement calculations

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## Contribution by the actuarial function

### Policies on risk management

- Requires written policies on at least the following areas:
  - Underwriting and reserving
  - Asset-liability management
  - Investment in particular derivatives and similar commitments
  - Liquidity and concentration risk management
  - Operational risk management
  - Reinsurance and other risk-management techniques

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## Actuarial Function - working together

### Tasks related to Internal Models

- Design & implement the Internal Model
- Test and validate the Internal Model
- Document the internal model and any subsequent changes made to it.
- Analyse the performance of the Internal Model and communicate the results of this analysis

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## Actuarial Function – taking the lead

### Article 48 requirements

- Developing methodologies, calculation of and reporting on the Technical Provisions
- Compare the best estimates against experience
- Opinion on the underwriting policy
- Adequacy of the reinsurance arrangements
- Contribute to the effective implementation of the risk management system

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## Evolution of Actuary into CRO

### Advantages of the actuarial skill set in risk management

- Provides a strong technical understanding of financial and insurance risk.
- Deep understanding of the working and limitations of the Internal Model
- Ability to communicate sophisticated concepts to the Board and senior Management effectively.

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## Evolution of Actuary into CRO

### Limitations/areas of improvement?

- Wider understanding of risk types other than financial and insurance risks
- Improve understanding of the limitations of quantitative risk assessments and increase understanding of qualitative risk assessments.
- More business focussed and developing stronger relationships with other business functions.

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## Questions or comments?

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

