The changing role of Risk Management in insurance

Fribourg, 2. September 2016

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The changing role of Risk Mgmt in insurance

Key messages

- Risk Management is a relatively new corporate function, which has evolved over time and is now approaching maturity in most organizations
- An effective Risk Management function interacts with all other business functions to create benefits for all stakeholders
- A modern and effective Risk Management function impacts the work of actuaries, and creates new career opportunities for actuaries
- Effective positioning of the Risk Management function may require changes to responsibilities of other corporate functions, e.g. Actuarial and Finance
- Model risk management has become key to assure the quality of model-based decisions

Risk Management function – the origins

Corporate failures led to strong development over the past 20 years

Risk management process as a formal part of the decision-making within companies is traceable to the late 1940s and early 1950s.

Since the mid-1990s, enterprise risk management has strongly emerged as a concept and as a management function within corporations. Its emergence can be traced to two main causes:

A. Following a number of high-profile company failures and preventable large losses, the scope of corporate governance has widened to embrace the risks that a company takes. Directors were required to report on their internal risk control systems.

B. Strategic planning models became based more on shareholder value concepts, which draw their inspiration from the finance theory where risk has always played a central role.

Source: 'Enterprise Risk Management: Its Origins and Conceptual Foundation'
The Geneva Papers on Risk and Insurance Vol. 26 No. 3 (July 2001)

The investor's perspective on risk management

Effective risk management helps sustainably increasing the value of a company

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$$V = \frac{D_0}{k-g}$$

V	$= \textit{Value of company}$
D_0	$= \textit{Dividend in year 0}$
k	$= \textit{cost of equity} = f(\textit{risk}) = r_f + \boldsymbol{r_p}$
g	$= \textit{growth rate of dividend (constant \& perpetual rate)}$

Uncertainty of future dividends due to risk events requires a risk premium r_p in valuation. **Effective risk management** gives investors* **assurance** that a lower risk premium is sufficient: **Strong valuation lever!**

* Equity *and* debt investors; rating agencies also assess quality of risk management

Evolution of the Risk Management function

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Late '90s (Phase 1)

- Run the process
- Risk reporting
- Collect & analyze numbers
- Build and administer quant models
- Skills in demand: strong quants and IT

2000s' (Phase 2)

- Checklists and templates
- Calculate and allocate risk capital
- Risk capital limits
- Control frameworks (e.g. COSO) and related public disclosure (SOX)
- ERM frameworks with a dedicated Risk Manager role
- 3 Lines of Defense
- 'Risk manager answers questions when asked'
- Skills in demand: generalist knowledge with understanding of control frameworks

2010+ (Phase 3)

- Ability to influence stakeholders to make sensible business decisions and take risks intelligently
- Provide an independent, unbiased perspective to the CEO, as stakeholders from different business functions may have different priorities
- Risk appetite (limits and tolerances) as a management tool
- Risk management embedded in daily running of the business (*Own Risk and Solvency Assessment*)
- Risk Manager member of ExCo, providing independent challenge with a holistic perspective
- Skills in demand: in-depth understanding of the business, commercial background with strong quantitative skills

Today’s Enterprise Risk Management Framework (ERM) applies the 3 Lines of Defense model

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A “three lines of defense” approach runs through the corporate risk governance structure so that risks are clearly *identified*, *assessed* and *owned*

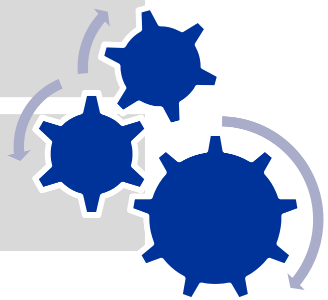
1 **Business Management** *takes* risks and is responsible for day-to-day risk management

2 **Risk Management** oversees the risk management framework and helps business management to manage risk, by providing risk insights and challenge as a business partner

Compliance is a specialist within the second line of defense

Other governance and control functions (e.g., **Legal**, **Actuarial**, and **Finance)** help business management manage and control specific types of risks

3 **Audit** provides independent assurance regarding the enterprise risk management framework and risk control effectiveness



Risk Management function

Mandate

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COMPONENTS	DESCRIPTION
RISK STRATEGY	RM helps strengthen the **connection between business strategy and risk-taking** through an agreed **risk appetite**, within which business can pursue opportunities
RISK ADVISORY / BUSINESS PARTNER	RM is an **independent** and **trusted** business partner that provides **critical challenge** and enable **transparency on risk-reward trade-offs** facilitating risk-informed decision-making
RISK INSIGHTS	RM provides **risk insights** and a **360° view of risk** across business and risk types In addition, RM provides **thought leadership** on key risk topics
RISK GOVERNANCE	RM provides **risk governance mechanisms** to enable the business to assess and manage risks **effectively and efficiently** with clear accountabilities, roles and responsibilities that supports disciplined risk-taking across the organisation
RISK REGULATORY MANAGE-MENT	RM is agile in managing rapidly evolving **risk regulatory frameworks** that affect the design of the company's ERM and actively engages with regulators to provide industry perspective on risk management topics

Risk Management function

Expected outcomes

COMPONENTS	Expected Outcomes
RISK STRATEGY	> Board-approved **risk appetite** defined along capital, liquidity, earning and reputation > Set **risk limits** within risk appetite > Defined **risk preference** in line with our strategy and rewarded risk taking > Embedded **risk-return considerations** throughout the strategy definition and execution > **Impact assessment** on the business strategy through **risk adjusted performance consideration**
RISK ADVISORY / BUSINESS PARTNER	> Well understood and embedded **company–wide ERM approach** to strategically steer and manage balanced risk taking. **Risk awareness** promoted and **embedded** across the company and ensure link with the company culture > Transparent facilitated discussion, providing **clarity in risk-reward tradeoffs. Fostered rewarded-risk taking** within a pre-defined set of limits > Risk-reward trade-offs advice, risk adjusted performance assessments > 360° risk advice covering all relevant value drivers and risk types
RISK INSIGHTS	> **360° risk view of risk** > **Insight** through proactive analysis and risk identification, connecting risk analysis to value-drivers to understand their impact > Agile **update and management of risk profile**
RISK GOVERNANCE	> Effective and efficient **risk management frameworks and processes**, appropriate for the risks exposures that steer and manage a disciplined risk-taking > **Principle-based risk policy** with appropriate structure to facilitate **business ownership** > RM has a clear voice and **escalates matters where appropriate** > **Clear accountability, roles and responsibilities** for risk taking, control and assurance according to lines of defence principles, where **1st line has a clear boundaries** in which to take and manage risks
RISK REGULATORY MANAGE-MENT[1)]	> Proactive engaging with key regulators – to bring industry/business insight into the design of regulatory frameworks > **Effective governance** mechanisms to respond to regulations impacting the RM framework > Effective and insightful **regulatory reporting and disclosure** processes (ORSA / FLAOR etc.)

Model risk management

A relatively new practice in insurance

- **Demand for model use is increasing**
  - Insurance product innovation, Big Data evolution
  - Increased use of models to support decisions or measure performance
  - Competitive advantage

- **Demand for model risk management is increasing**

  Risk management evolution
  - Recognition that model risk is a source of P&L or capital volatility, with reputational damage
  - Best practice ERM frameworks apply 3 lines of defense approach to model risk

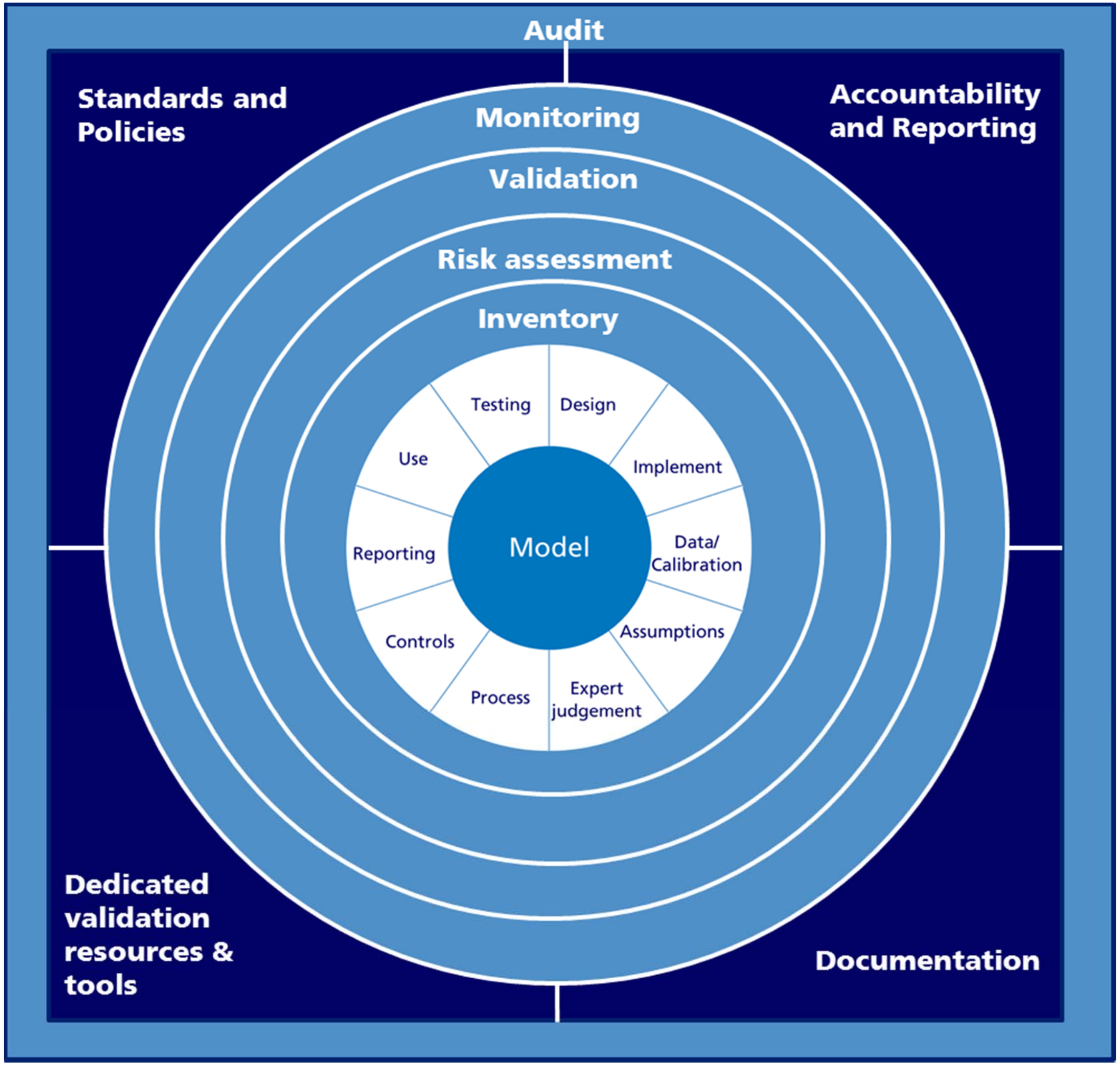
  Regulatory evolution
  - US Federal Reserve SR 11-7 for banks provides a reference for a comprehensive framework
  - Solvency II and SST for internal capital models of Insurers, focus on model validation

- **Unlike financial or insurance risks, model risk is unrewarded**
  - Some of the risks insurers take are rewarded, such as insurance risks or credit risk
  - Operational risks up to a certain level can be rewarded (risk mitigation costs money)
  - Model risk should thus be **reduced/eliminated** as much as possible given assigned budget

Actuaries are not «left alone» any more when using models

Model risk management

Framework



Risk Management interacts with Actuarial

Mutual understanding of roles is important to avoid confusion

Risk Management Function

- Challenge the business strategy
- Defines risk management strategy
- Support Remuneration Committee on risk matters
- Internal Model
  - Design and implement
  - Test and validate
  - Document including changes
  - Analyse performance
- Facilitate Implementation of risk management system
  - Strategies, processes and reporting procedures
  - Identify, monitor, manage and report on risks
- Report to the Board and Develop Risk Policies
  - Underwriting, reserving, ALM, investment and derivatives, liquidity, and concentration risk, operational risk, reinsurance and risk mitigation.

- Contribute to effective implementation of the risk management system
- Assist in the production and challenge of business strategy
- In particular
  - SCR and MCR Modelling
  - Internal Model
  - ORSA reporting

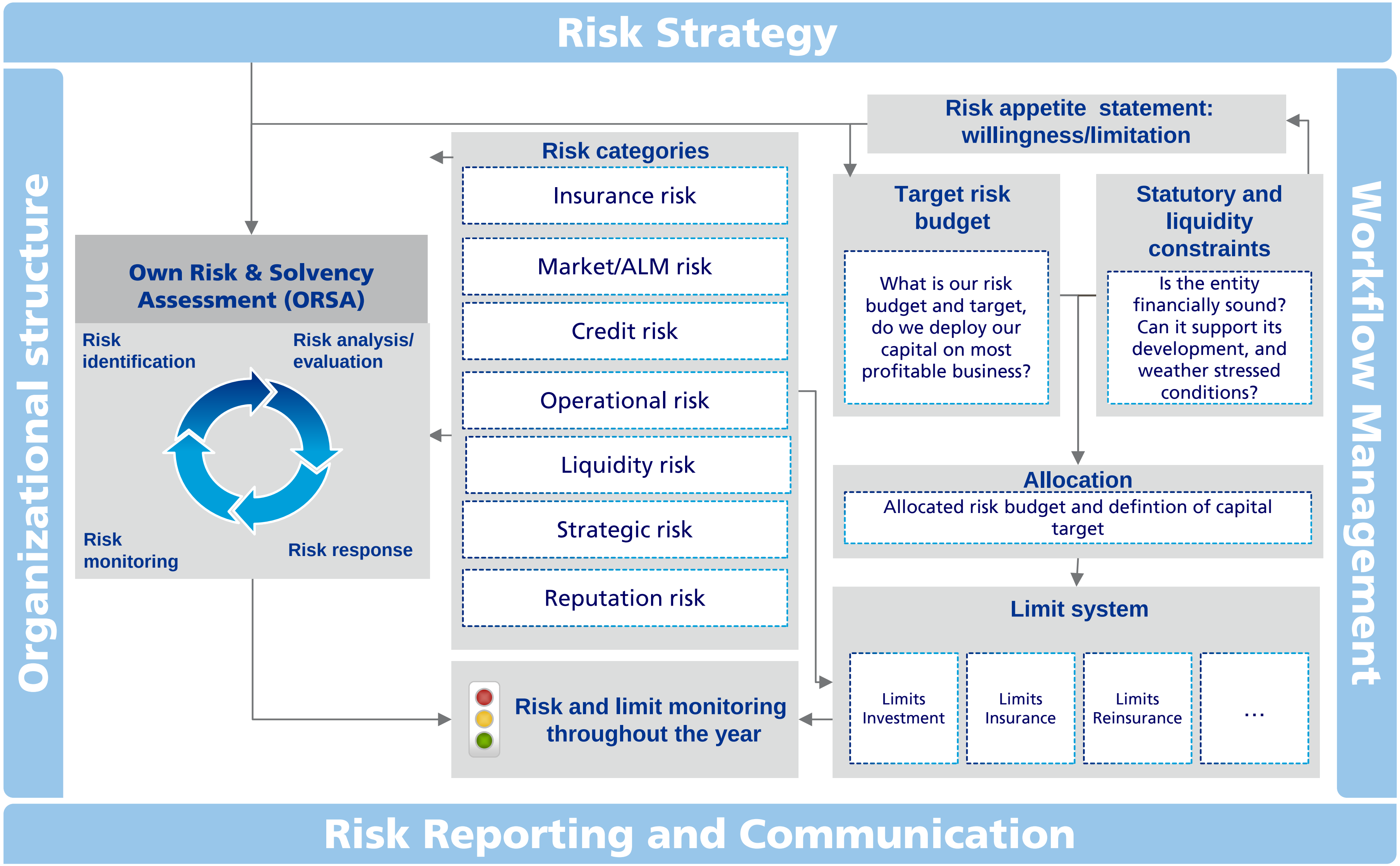
Actuarial Function

- Ensure the Model is stable enough to withstand small variations
- Ensure the main risk drivers are appropriately addressed in the model underlying the calculation of technical provisions
- Co-ordinate Technical Provisions
  - Co-ordinate calculation
  - Methodologies and Assumptions
  - Data sufficiency and quality
  - Experience Analysis
  - Report to Board on reliability and adequacy
- Express an opinion on
  - Underwriting Policy
  - Reinsurance arrangements
  - Provide expert advice to CRO
- Production of actuarial aspects of external risk reporting and risk MI

Own Risk and Solvency Assessment (ORSA)

Best practice risk management process

The ORSA is the ongoing process where all risk activities come together for management decisions and board oversight: it is *not* "just another report"



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