

# Enterprise Risk Management

## **A View**

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<b>Topics</b>
<b>ERM – some basics</b>
<b>Responsibilities</b>
<b>CRO - evolution</b>
<b>Challenges and priorities</b>
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# Introduction

# Zurich's risk management is currently well positioned compared to its peers ...

Dimension	ZFS*	AXA	Allianz	ING	Generali	Aviva	AIG
<b>Risk culture</b>	<b>Strong</b>	<b>Strong</b>	<b>Strong</b>	<b>Strong</b>	<b>Adequate</b>	<b>Adequate</b>	<b>Weak</b>
<b>Risk controls</b>							
Credit	Excellent	-	Excellent	Strong	Strong	-	Strong
Market	Excellent	Strong	Strong	Strong	Strong	Strong	-
ALM	Excellent	Excellent	Strong	Strong	Strong	-	-
Insurance	-	-	Strong	Strong	-	-	-
Non-Life insurance	Strong	Strong	-	-	Adequate	Strong	Strong
Life Insurance	Strong	Excellent	-	-	Strong	Adequate	-
Reserving	Strong	Strong	Strong	-	Strong	Strong	-
Nat Cat	Strong	-	Strong	-	-	Strong	-
Reinsurance	Excellent	-	Strong	-	Strong	Strong	-
New Prod. Dev.	Strong	Excellent	Adequate	Strong	Adequate	-	-
Operational Risk	Strong	-	-	Adequate	-	-	-
<b>Emerging risk</b>	<b>Strong</b>	<b>Strong</b>	-	<b>Adequate</b>	-	-	-
<b>Strategic risk management</b>	<b>Strong</b>	<b>Strong</b>	<b>Strong</b>	<b>Strong</b>	<b>Strong</b>	<b>Adequate</b>	<b>Weak</b>
	▼	▼	▼	▼	▼	▼	▼
<b>Overall</b>	<b>Strong</b>	<b>Strong</b>	<b>Strong</b>	<b>Strong</b>	<b>Adequate</b> <b>(pos. trend)</b>	<b>Adequate</b> <b>(pos. trend)</b>	<b>Weak</b>

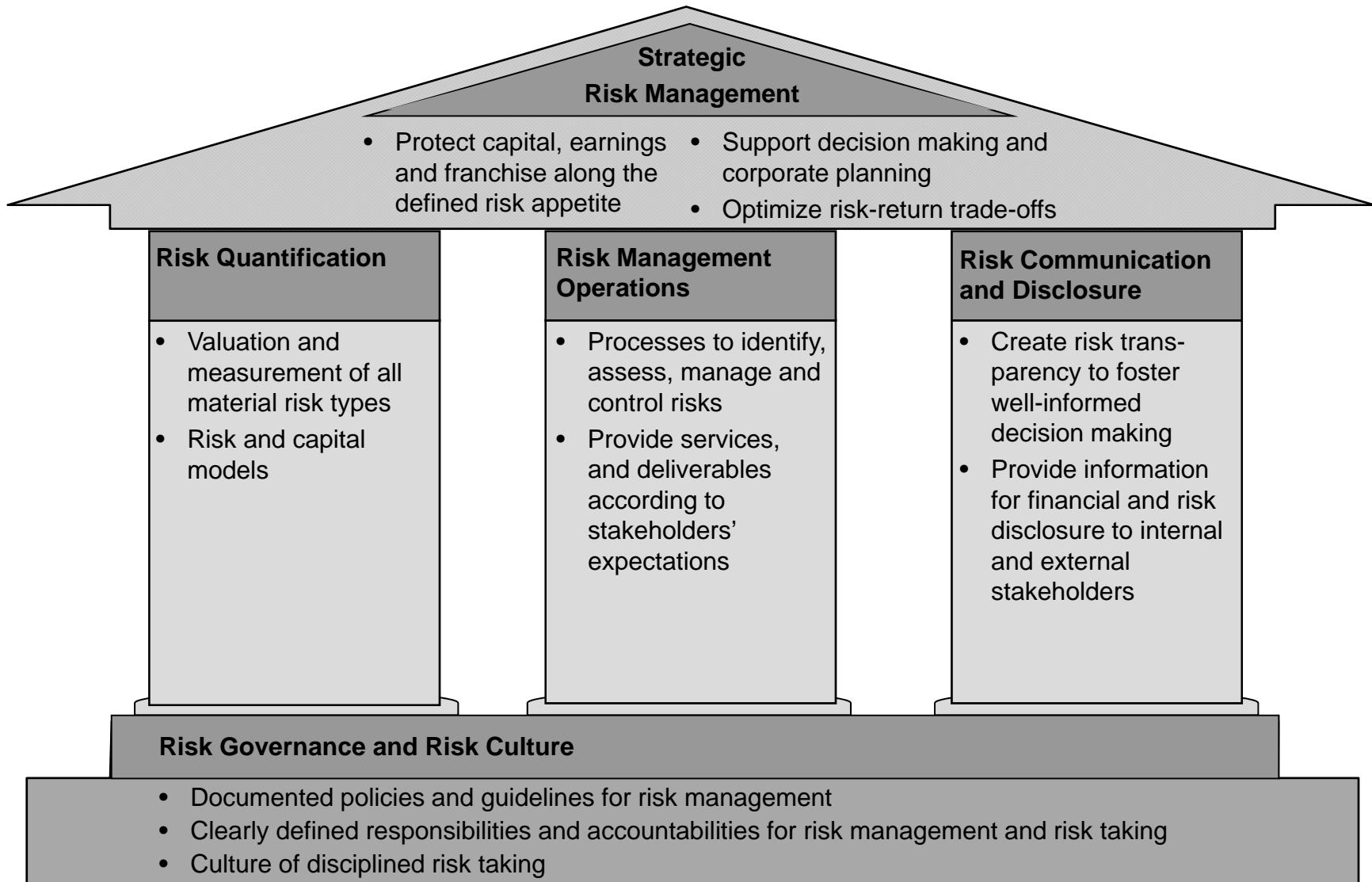
Source: S&P information as of 08/2011

# **Enterprise Risk Management – some basics**

# What is Enterprise Risk Management?

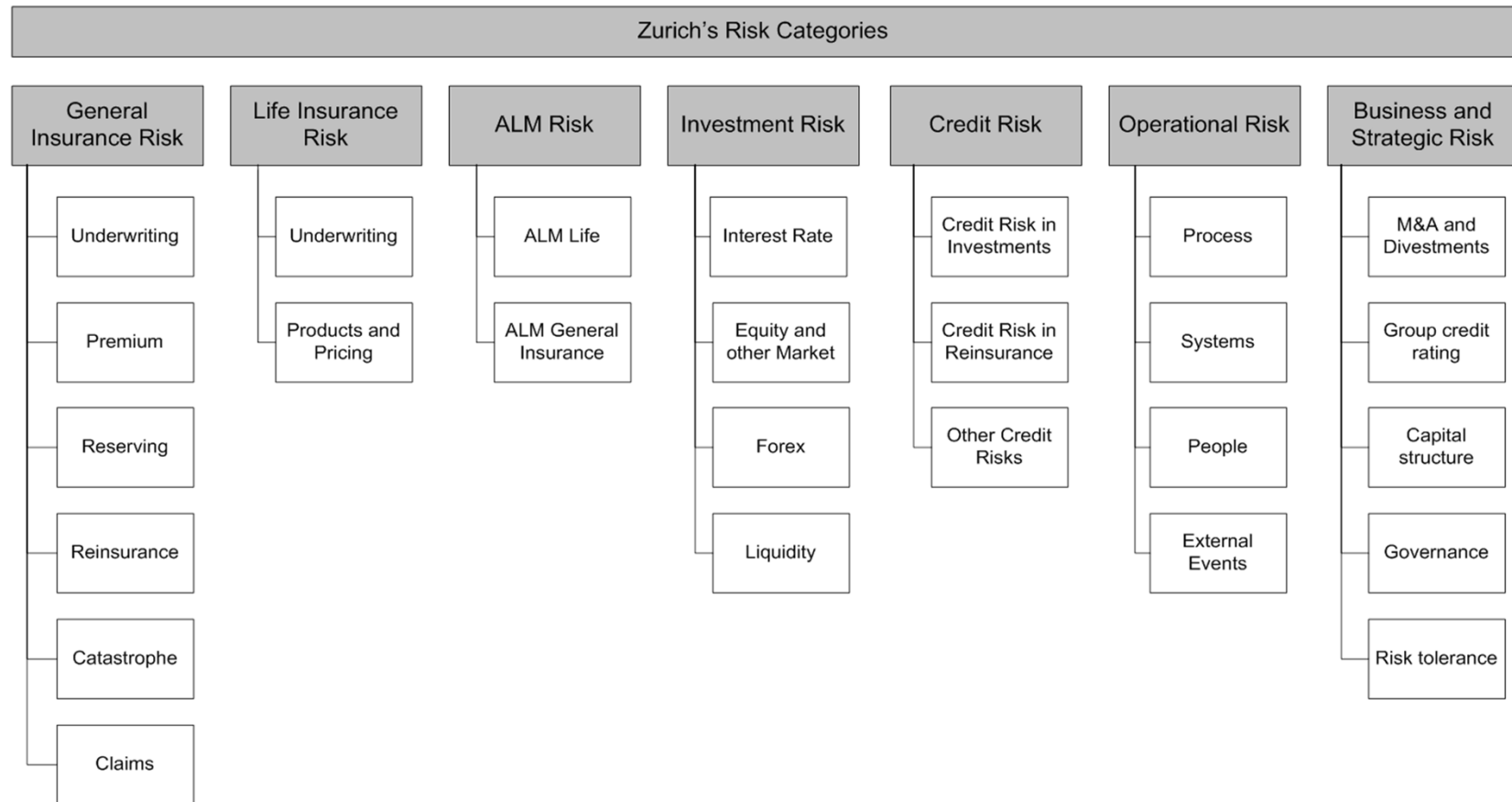
- In business, enterprise risk management (ERM) includes the methods and processes used by organizations to manage risks and seize opportunities ...  
[en.wikipedia.org/wiki/Enterprise\\_risk\\_management](http://en.wikipedia.org/wiki/Enterprise_risk_management)
- "...process, effected by an entity's board of directors, management, and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives." COSO 2004
- "No Surprises"

# An Approach to Enterprise Risk Management



# ERM Framework – underpinned by a policy

The ZRP contains specific risk definitions, limits, reporting requirements and escalation procedures for broad risk types. Policies are regularly updated in light of capital base, organizational structure, and focus on core businesses and major risks





# Goals of Zurich's Approach to ERM

## *Value Proposition*

<b>Protect Earnings, Capital and Franchise</b>	<ul style="list-style-type: none"><li>● Monitor and measure the Group risk profile along risk tolerance and appetite statements</li><li>● Cascade Group risk tolerance to the risk taking level via risk budgets</li><li>● Conduct stress tests</li></ul>
<b>Enhance Value Creation</b>	<ul style="list-style-type: none"><li>● Optimize risk-return profile</li><li>● Enhance transparency and accountability</li></ul>
<b>Support Decision Making Process</b>	<ul style="list-style-type: none"><li>● Risk reporting</li><li>● Risk advisory</li></ul>
<b>Protect Reputation and Brand</b>	<ul style="list-style-type: none"><li>● Foster core values outlined in <i>Zurich Basics</i></li><li>● Further Zurich brand building campaign</li><li>● Meet shareholders expectations</li></ul>

# Responsibilities

# Solvency II – A reminder of what the Level I Directive says

- 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.
- The risk-management system shall cover the risks to be included in the calculation of the Solvency Capital Requirement as set out in Article 101(4) as well as the risks which are not or not fully included in the calculation thereof.
- The risk-management system shall cover at least the following areas:
  - a) underwriting and reserving;
  - b) asset–liability management;
  - c) investment, in particular derivatives and similar commitments;
  - d) liquidity and concentration risk management;
  - e) operational risk management;
  - f) reinsurance and other risk-mitigation techniques.

# Solvency II – A reminder of what the Level I Directive A44 says

- Insurance and reinsurance undertakings shall provide for a risk-management function which shall be structured in such a way as to facilitate the implementation of the risk management system.
- For insurance and reinsurance undertakings using a partial or full internal model approved in accordance with Articles 112 and 113 the risk-management function shall cover the following additional tasks:
  - a) to design and implement the internal model;
  - b) to test and validate the internal model;
  - c) to document the internal model and any subsequent changes made to it;
  - d) to analyse the performance of the internal model and to produce summary reports thereof;
  - e) to inform the administrative, management or supervisory body about the performance of the internal model, suggesting areas needing improvement, and up-dating that body on the status of efforts to improve previously identified weaknesses.

# Questions for/from the Board

- 1. What risks does the business face?**
- 2. How much risk are we prepared to take?**
- 3. Who is responsible for managing these risks?**
- 4. How can we ensure there are no surprises ?**
- 5. How does our risk profile affect our capital?**

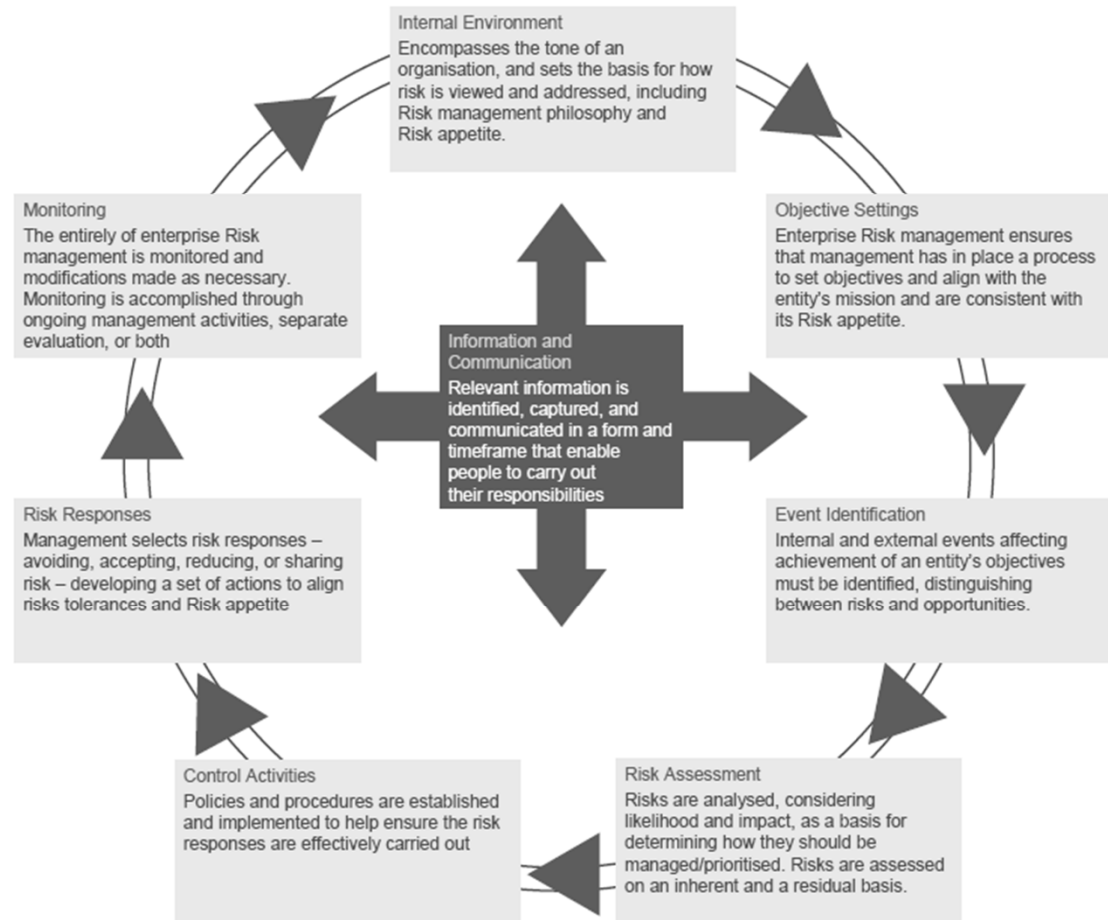
# CRO within Solvency II

## A Chief Risk Officer should:

- a) be accountable to the *firm's governing body* for **oversight of firm-wide risk management**;
- b) be fully **independent** of a *firm's* individual business units;
- c) have sufficient **authority, stature and resources** for the effective execution of his responsibilities;
- d) have unfettered **access** to any parts of the *firm's* business capable of having a material impact on the *firm's* risk profile;
- e) ensure that the **data** used by the *firm* to assess its risks are fit for purpose in terms of quality, quantity and breadth;
- f) provide **oversight and challenge** of the ***firm's* systems** and controls in respect of risk management;
- g) provide **oversight and validation of the firm's external reporting of risk**;
- h) ensure the adequacy of **risk information, risk analysis and risk training** provided to members of the *firm's governing body*;
- i) **report to the firm's governing body on the firm's risk exposures relative to its risk appetite and tolerance**, and the extent to which the risks inherent in any proposed business strategy and plans are consistent with the *governing body's* risk appetite and tolerance;
- j) provide **risk-focused advice** and information into the setting and individual application of the *firm's remuneration* policy

# Role of risk appetite in the overall enterprise risk management framework

- Risk appetite is a critical component of a firm’s risk management framework. If embedded in an effective manner, it will help underpin all elements of the enterprise risk management framework.
- Risk appetite also links directly to the strategic and business planning processes through aligning commercial decision making and activity with the firm’s purpose and vision.
- The graphic on the right is a sample enterprise risk management framework, highlighting the role of risk appetite.



# **CRO evolution**



# The Utopian CRO?

Generalist

Listener

Research Skills

Good Nose

Challenger

Communicator

Analytics

Collaborator

Integrity

Common  
Sense



Entrepreneur

Experienced

Humility

Business Leader

Optimist

Actuarial Skills

Fortune Teller

Finance Skills  
Prioritise

Pessimist

# Challenges & Priorities

# The (Internal) Model

## Evidencing use

- Ability to demonstrate to regulators:
  - use in the decision-making process
  - business drives model development
- Board and senior management must develop an understanding of the internal model methodology, assumptions, and results
- Demonstration of appropriate and consistent Management Information across all applications
- A robust process to guide re-calibration decisions and any approximate adjustments of results

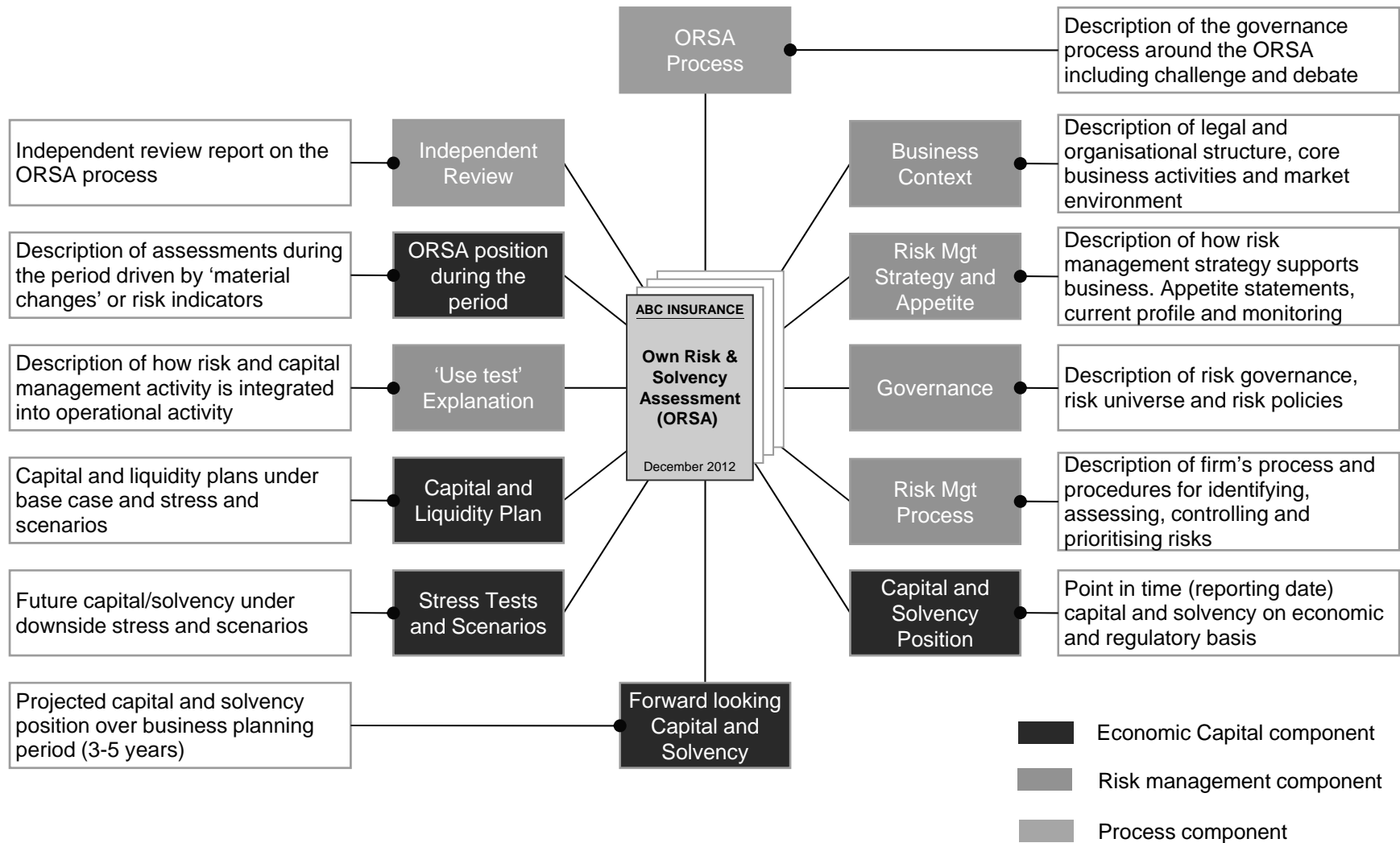
<p style="text-align: center;"><b>Underwriting</b></p> <ul style="list-style-type: none"> <li>•pricing of the business through the allocation of capital to lines of business and linking to the firms' business plan targets</li> </ul>	<p style="text-align: center;"><b>Investment management</b></p> <ul style="list-style-type: none"> <li>•determining the possible effects of investment decisions</li> </ul>
<p style="text-align: center;"><b>Product development</b></p> <ul style="list-style-type: none"> <li>•understanding the potential impact of new product developments and developing alternative business plan projections</li> </ul>	<p style="text-align: center;"><b>Management information</b></p> <ul style="list-style-type: none"> <li>•understanding the risks in the business plan and sensitivities to key assumptions, and how this fits with the firm's risk appetite</li> </ul>
<p style="text-align: center;"><b>Strategy/planning</b></p> <ul style="list-style-type: none"> <li>•assessing the possible impact on the risks and capital of the business of various strategies and objectives</li> </ul>	<p style="text-align: center;"><b>Corporate finance</b></p> <ul style="list-style-type: none"> <li>•assessing the possible impact on the risks and capital profile of the business of potential mergers, acquisitions and disposals</li> </ul>
<p style="text-align: center;"><b>Finance function</b></p> <ul style="list-style-type: none"> <li>•risk based performance reporting using measures such as return on risk adjusted capital (RORAC)</li> </ul>	<p style="text-align: center;"><b>Reinsurance</b></p> <ul style="list-style-type: none"> <li>•analysis, design and purchase of the reinsurance programme</li> </ul>

Source: FSA Pathway to Solvency II

# A view on risk appetite statements

- Risk appetite statements have to have bite and **drive behaviour/decision making**
- A key focus of risk appetite statements is **solvency ratio coverage**
- In many cases there is a very high level discussion of **how strategy and risk appetite are linked** though it is unclear how well defined this process is in reality.
- There is a general lack of consideration of **risk aggregation issues**
- In most cases, companies use **retrospective measures of risk** (such as actual solvency coverage ratio) rather than prospective (or “lead indicator”) measures
- Over two thirds of the risk appetite statements that were reviewed contain an **early-warning system** (such as a “traffic-light” system) in order to provide advance warning to management that current risk profile is approaching a key threshold.
- Many risk appetite statements are clear in that there was **no appetite for a particular risk or risks**. In such cases, the most popular risks to fall into this category are operational (45%), regulatory (35%), liquidity (20%), reputational (20%) and writing new business on unprofitable terms (20%).
- **Remuneration policy** is explicitly mentioned in only a handful of the risk appetite statements that were reviewed.

# ORSA components



# My Own View

- Model Risk – data, uncertainty, over-reliance.....
- Forward looking risk management
- Key Risk Indicators
- Operational Risk
- Risk Culture
- Being in the “No” Business
- ERM Execution/implementation/integration
- Education/Training
- Talent



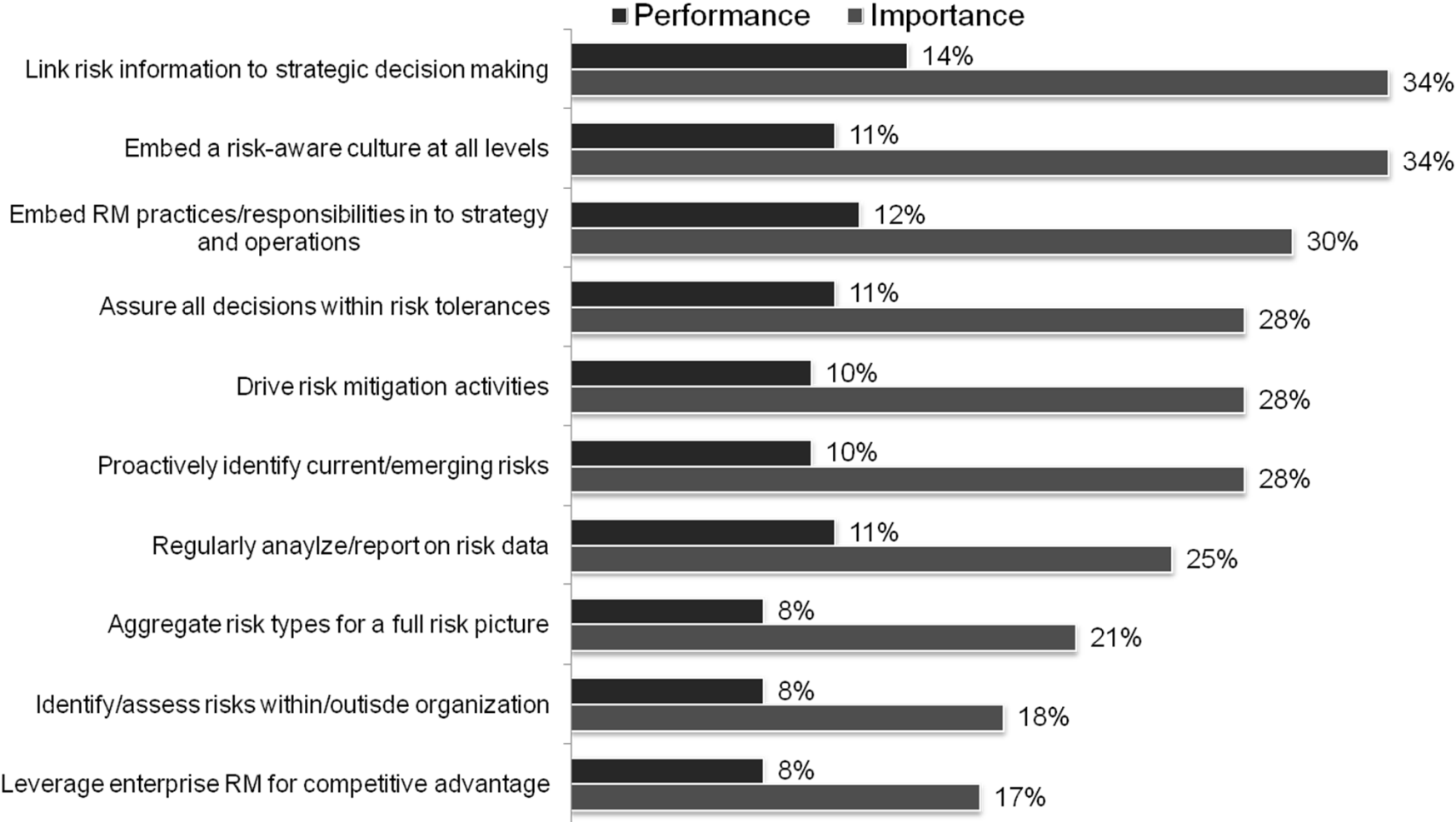
# **Harvard Business Review Risk Study**

## **Risk Management in a Time of Global Uncertainty: Implementing an Integrated Approach to ERM**

Group Risk Management,

Zurich HelpPoint

# The gap between ERM importance & organizational performance in dealing with it.





# IIF Report on Market Best Practices

## Selected recommendations from July 2010

- **Governance & risk culture:** *“It is critical for governance to embed a firm-wide focus on risk. The recent market turbulence has provided clear evidence that effective cultivation of a consistent “risk culture” throughout firms is the main enabling tool in risk management.”*
- **Risk appetite:** *“Within a solid risk management framework, a key part of an effective risk culture is the articulation of the firm’s risk appetite, and ensuring its adoption throughout the firm.”*
- **Role of the Chief Risk Officer:** *“One clear lesson highlighted by the market turmoil is the need to strengthen risk management organizational structures.”*
- **Risk models and integration of risk management areas:** *“(…) Firms should (…) ensure that risk management does not rely on a single risk methodology, and analyze group-wide risks on an aggregate basis.”*
- **Stress testing:** *“During the market turbulence, the magnitude of losses at many firms made it clear that their stress-testing methodologies needed refinement – stress testing was not consistently applied, too rigidly defined, or inadequately developed.”*

## ERM In Light Of The Financial Crisis

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- **Firms suffered far higher losses than anticipated.**  
**S & P believes this was the result of...**
  - **Poorly designed processes**
  - **Poor implementation of well designed processes**
  - **Lack of organisational commitments to properly enforce limits and align activities with risk management objectives**
  - **Lack of ability to properly execute the ERM framework in place**
  - **Weaknesses in insurer's risk appetite frameworks with lack of understanding of specified risk tolerances and lack of ability to reconcile risk limits and risk tolerances**  
(e.g. complex variable annuities & credit products)
- **Enhanced focus on the implementation of ERM**
  - **Evaluation of management's commitment to ERM**
  - **Analysis of the effectiveness of the execution of the ERM framework**
  - **Analysis and assessment of an insurer's risk appetite**

## **Industry Preparedness For Solvency II Requirements**

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- **In our opinion, insurers with "strong" ERM assessments under our criteria should be in a good position to meet the Solvency II requirements on risk management, internal models, and the use test.**
- **18% of all rated European insurers currently have "strong" ERM assessments. We believe a further 14% may achieve a "strong" ERM assessment over the next two years.**
- **We believe that the remaining rated insurers will likely have to make improvements to their risk management capabilities to comply with Solvency II's requirements.**

# Conclusion

**Thank you for your attention**