



International Association for the  
Study of Insurance Economics

# Études et Dossiers

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Extract from

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“The Regulation and Supervision of Financial  
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Layout & Distribution: Valéria Kozakova & Bernadette Curty


**Solvency II**  
Michael Koller

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|   | <p>Swiss Re<br/></p>  |
|   | <p>Objective of the presentation</p>   |
|   | <ul style="list-style-type: none"><li>■ To provide a high-level description of some key regulatory trends in the area of risk management</li><li>■ To describe some of the challenges ahead</li><li>■ To provide the basis for discussing about risk management in this body</li></ul> |
| <p>Solvency II<br/>Geneva, 7. April 2005<br/>Swiss Re, Dr. M. Koller<br/>Page 2</p> |  |

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|   | <p style="text-align: right;">Swiss Re<br/></p> <h2 style="text-align: center;">How good is risk management in insurance companies?</h2>  |
| <p>Solvency II<br/>Geneva, 7. April 2005<br/>Swiss Re, Dr. M. Koller<br/>Page 3</p> | <ul style="list-style-type: none"> <li>■ Ironically, risk management in insurance companies does not have a very good reputation. Mostly because of             <ul style="list-style-type: none"> <li>- investment losses depleting huge amounts of capital</li> <li>- major insurer insolvencies or almost insolvencies</li> <li>- public scandals related to accounting (not only insurers)</li> </ul> </li> <li>■ Some Risk Management weaknesses are the result of             <ul style="list-style-type: none"> <li>- lack of clearly formulated risk policy</li> <li>- lack of formalised risk governance structure and processes</li> <li>- unclear responsibilities for risk taking and risk controlling</li> <li>- inadequate Asset &amp; Liability Management</li> </ul> </li> </ul> <p style="text-align: right;">→ As a result regulators worldwide are requiring companies to strengthen their risk management processes and capabilities</p> |

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|   | <p style="text-align: right;">Swiss Re<br/></p> <h2 style="text-align: center;">Why do insurers need risk management?</h2>   |
| <p>Solvency II<br/>Geneva, 7. April 2005<br/>Swiss Re, Dr. M. Koller<br/>Page 4</p> | <ul style="list-style-type: none"> <li>■ To provide confidence to their shareholders that the company protects their investment and engages in controlled risk taking</li> <li>■ To provide confidence to clients/policyholders and regulators that the company will be able to meet its obligations, (re)insurers             <ul style="list-style-type: none"> <li>- need to be financially strong, and</li> <li>- build up a solid risk management reputation</li> </ul> </li> </ul> <p style="text-align: right;">→ Robust <b>internal</b> risk management processes are key for the sustainability of an insurer but also for its value proposition</p> <p style="text-align: right;">→ Additional regulatory requirement can distort the internal processes</p> <p style="text-align: right;">→ <b>Therefore the full allowance of internal risk models and processes is essential</b></p> |


## Risk management: mirroring the three pillars of Solvency II




Pillar 1: Solvency capital requirements (capital adequacy) ↔

Pillar 2: Supervisory review process ↔


Pillar 3: Risk disclosure to enhance market discipline ↔



Risk quantification




Risk governance




Risk transparency

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## Regulation prescribes risk quantification on an economic basis






Risk quantification

**Illustrative**

Economic balance sheet

|                        |   |
|------------------------|---|
| Market value of assets | Market consistent value of in-force liabilities |
|                        | Risk-bearing capital                            |






Economic P&L distribution



- Risk-bearing capital is the total economic capital available to absorb risk
- Risk is quantified over a one-year time horizon



→ An **economic perspective is necessary** since accounting rules may distort the measurement of available capital and financial market risk

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|  | <p style="text-align: right;">Swiss Re </p> <h2 style="text-align: center;">Regulatory trends: risk quantification and capital adequacy</h2>  |
|  <p style="text-align: center;">Risk quantification</p> <p>Solvency II<br/>Geneva, 7. April 2005<br/>Swiss Re, Dr. M. Koller<br/>Page 7</p> | <ul style="list-style-type: none"> <li>■ Minimum capital requirements will continue to exist and not meeting them will trigger supervisory action, but ...</li> <li>■ ... supervisors will require target capital levels based on             <ul style="list-style-type: none"> <li>- an economic assessment of available capital and</li> <li>- an internal risk model to determine required capital (for complex companies) or</li> <li>- a simpler standard risk model (for simpler companies)</li> </ul> </li> <li>■ In addition, the fungibility of capital will be closely scrutinised before giving credit for diversification across legal entities</li> <li>■ The requirement of target capital levels based on economic principles is one of the key regulatory trends in Europe</li> </ul> |



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|  | <p style="text-align: right;">Swiss Re </p> <h2 style="text-align: center;">Challenges: capital adequacy and risk quantification</h2>  |
|  <p style="text-align: center;">Risk quantification</p> <p>Solvency II<br/>Geneva, 7. April 2005<br/>Swiss Re, Dr. M. Koller<br/>Page 8</p> | <ul style="list-style-type: none"> <li>■ While progress has been made, no agreed standards for the consistent economic valuation of assets and liabilities, and no agreed standards for the measurement of risk exist yet</li> <li>■ Moreover, admissibility criteria for internal models are not yet clear</li> <li>■ Local focus of regulators may impair a company's ability to move capital or transfer risk internally across different jurisdictions and hinder global risk sharing, raising insurance prices and increasing local concentration of risk everywhere</li> </ul> <div style="background-color: #f4a460; padding: 10px;"> <ul style="list-style-type: none"> <li>➔ The (re)insurance industry needs to consolidate developments and agree on <b>standards for economic valuation and risk measurement</b></li> <li>➔ The insurance industry needs to work together with regulators to develop practicable solutions to <b>enable global risk sharing (diversification)</b></li> <li>➔ <b>Risk mitigation</b> (e.g. Derivatives, Reinsurance, ... ) should lead to a <b>full economic capital relief.</b></li> </ul> </div> |



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|  | <p style="text-align: right;">Swiss Re<br/></p> <h2 style="text-align: center;">Regulatory trends: supervisory review process and risk governance</h2>  |
|  <p style="text-align: center;">Risk governance</p> <p>Solvency II<br/>Geneva, 7. April 2005<br/>Swiss Re, Dr. M. Koller<br/>Page 9</p> | <ul style="list-style-type: none"> <li>■ Reliance on internal models is only appropriate if the risk management processes of the company are adequate and thus ...</li> <li>■ ... regulation is placing much more emphasis on a formalised risk governance. A selection of best practice principles is             <ul style="list-style-type: none"> <li>– Board and top management are responsible for Risk Management (RM)</li> <li>– Top management has strong awareness for RM issues, understands all the firm’s risks and its RM framework</li> <li>– A process to identify and quickly resolve RM weaknesses exists</li> <li>– Risk taking and risk controlling authorities and responsibilities are clearly defined and independent of each other</li> <li>– All material risks are identified, measured and aggregated</li> <li>– A system for setting and monitoring limits and corresponding escalation processes is in place for all material risk exposures</li> </ul> </li> </ul> |

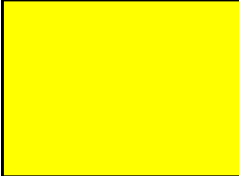

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|   | <p style="text-align: right;">Swiss Re<br/></p> <h2 style="text-align: center;">Regulation prescribes greater formalisation of risk governance</h2>   |
|  <p style="text-align: center;">Risk governance</p> <p>Solvency II<br/>Geneva, 7. April 2005<br/>Swiss Re, Dr. M. Koller<br/>Page 10</p> | <ul style="list-style-type: none"> <li>■ Guidelines &amp; Policies (including incentives structure)</li> <li>■ Firm wide common understanding of risk and its economic impact</li> <li>■ Approval processes, approval committees, and limit structures</li> <li>■ Risk aggregation and risk monitoring processes</li> <li>■ Regulatory compliance processes</li> <li>■ Shared risk culture, etc</li> </ul> <p style="text-align: right; background-color: #d9e1f2; padding: 5px;">➔ Risk governance describes how the company understands &amp; manages risk</p> |

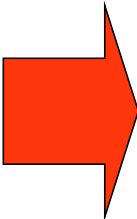
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|  | <p style="text-align: right;">Swiss Re<br/></p> <h2 style="margin: 0;">Challenges: supervisory review and risk governance</h2>   |
|  <p style="color: #e67e22; font-weight: bold;">Risk governance</p> <p style="font-size: small; margin-top: 20px;">Solvency II<br/>Geneva, 7. April 2005<br/>Swiss Re, Dr. M. Koller<br/>Page 11</p> | <ul style="list-style-type: none"> <li>■ The internal control requirements may turn out to be inappropriate and may result in disproportionate cost of compliance</li> <li>■ The risk management function is still developing and no common understanding on the scope of the function exists yet</li> </ul> <div style="background-color: #f39c12; padding: 10px; margin-top: 10px;"> <ul style="list-style-type: none"> <li>→ The (re)insurance industry needs to <b>keep the cost of regulatory compliance at reasonable levels</b></li> <li>→ The (re)insurance industry needs to <b>establish common risk management standards</b> and develop a clear role model going beyond regulatory compliance</li> <li>→ The <b>set up of the required processes, organisation and documents is extremely challenging</b>, in particular for companies starting at square one</li> </ul> </div> |

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|  | <p style="text-align: right;">Swiss Re<br/></p> <h2 style="margin: 0;">Regulatory trends: risk disclosure and risk transparency</h2>   |
|  <p style="color: #34495e; font-weight: bold;">Risk transparency</p> <p style="font-size: small; margin-top: 20px;">Solvency II<br/>Geneva, 7. April 2005<br/>Swiss Re, Dr. M. Koller<br/>Page 12</p> | <ul style="list-style-type: none"> <li>■ Capital standards and supervisory review form the basis of the new regulation but ...</li> <li>■ ... public disclosure will be required to promote market discipline             <ul style="list-style-type: none"> <li>- imposing strong incentives on insurers to conduct their business in a well-defined, sound and efficient manner, and ...</li> <li>- promoting safety and soundness in insurance markets and the financial system</li> </ul> </li> </ul> <div style="background-color: #9b59b6; padding: 10px; margin-top: 10px;"> <ul style="list-style-type: none"> <li>→ Providing stakeholders with meaningful, timely and transparent risk information is a key check and balance</li> </ul> </div> |

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|   | <p style="text-align: right;">Swiss Re<br/></p> <h2 style="text-align: center;">Risk transparency is the basis for establishing trust with all stakeholders</h2>  |
|  <p style="text-align: center;">Risk transparency</p> <p style="font-size: small;">Solvency II<br/>Geneva, 7. April 2005<br/>Swiss Re, Dr. M. Koller<br/>Page 13</p> | <ul style="list-style-type: none"> <li>■ External risk disclosure and dialogue will intensify in the future             <ul style="list-style-type: none"> <li>- shareholders, rating agencies, clients, and regulators, but ...</li> </ul> </li> <li>■ ... risk transparency and dialogue among business units, corporate center, Executive Board and Board of Directors is also key             <ul style="list-style-type: none"> <li>- transparent operational structure, business activities, and risk exposures</li> <li>- clearly defined responsibilities and robust processes</li> </ul> </li> </ul> <p style="text-align: right; background-color: #d9e1f2;">→ An open risk culture and general risk transparency is <b>key</b> for risk management to be effective and credible</p> |

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|   | <p style="text-align: right;">Swiss Re<br/></p> <h2 style="text-align: center;">Challenges: risk disclosure and risk transparency</h2>   |
|  <p style="text-align: center;">Risk transparency</p> <p style="font-size: small;">Solvency II<br/>Geneva, 7. April 2005<br/>Swiss Re, Dr. M. Koller<br/>Page 14</p> | <ul style="list-style-type: none"> <li>■ Lack of standards makes comparability problematic and may lead to wrong conclusions</li> <li>■ Overloading the public with too much data may ultimately lead to less transparency</li> <li>■ Companies could be forced to disclose trade secrets thus jeopardising their competitive position</li> <li>■ Use of internal models may put "optimistic" modelers at an advantage</li> </ul> <p style="text-align: right; background-color: #f4a460;">→ The (re)insurance industry needs to agree on <b>meaningful disclosure standards</b> with the relevant international bodies</p> |

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|  | <p style="text-align: right;">Swiss Re<br/></p> <h2 style="text-align: center;">Strategic Thrusts (Conclusion)</h2>   |
|   | <ul style="list-style-type: none"><li>■ Risk management based on economic principles</li><li>■ Full allowance of internal risk models and processes</li><br/><li>■ Full allowance of diversification effects</li><li>■ Economic capital relief for effective risk mitigation measures</li><br/><li>■ Risk management processes fully integrated in business processes</li><li>■ Open risk culture &amp; risk transparency</li><li>■ Meaningful risk disclosure to all stakeholders</li></ul> |



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