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The Insurance Industry: Risk Governance and Solvency II

Milan, 28 November 2006

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A Reputational Risk Management Framework

Report prepared for The Geneva Association
and Macros Research

by Dr. Riccardo Bigio

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Layout & Distribution: Valéria Kozakova

ERM and Ratings

Laura Santori

Agenda

- **Evaluating Enterprise Risk Management**
- **Findings so far**
- **The upside of ERM**

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2.

Evaluating Enterprise Risk Management

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ERM Evaluation Components



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Standard & Poor's Objective

Risk management is at the heart of what Standard & Poor's does. Standard & Poor's assesses insurers' risks and how risks are managed.

Objective: Enhance ratings process by increasing our analytical focus on insurers' risk management practices

- Previously, only qualitative credit given to risk management practices and models
- Ultimately, may give some quantitative recognition to risk models, but only where models are robust and underlying risk management framework is sound

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Classification of ERM Quality

Weak	Lacking basic controls for important risk(s).
Adequate	Fully functioning risk controls for all important risks, but performed in silos. No view of overall risk profile and therefore, no strategic risk management. Limits not linked to overall risk tolerance. No tracking of emerging risks.
Strong	Risk controls in place for all major risks. Vision of the overall risk profile and tolerance, from which are derived limits. Risk return considerations embedded in business decisions. Robust processes to identify emerging risks.
Excellent	Same as Strong but more advanced in the development of processes, or in the implementation and the effectiveness of execution.

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6.

Findings so far

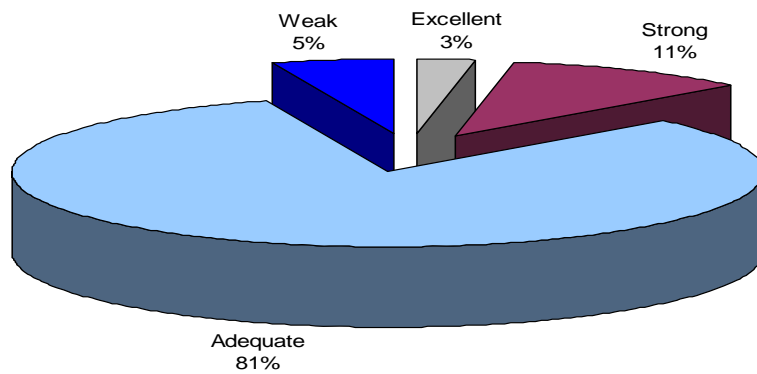
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7.

What have we done so far?

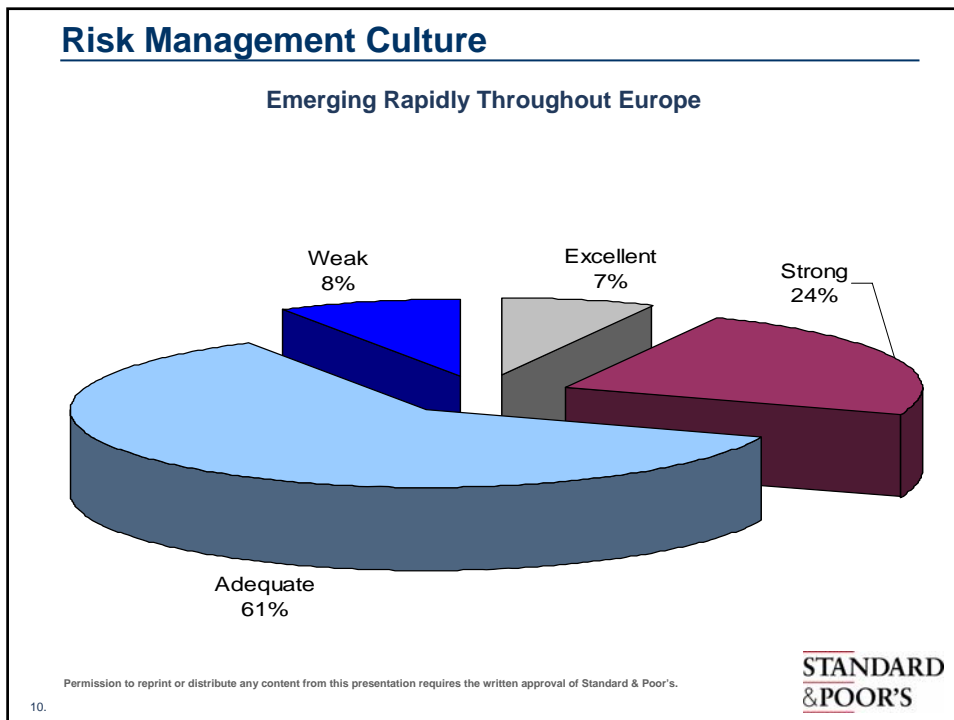
Overall ERM Assessment 76 companies at November 06

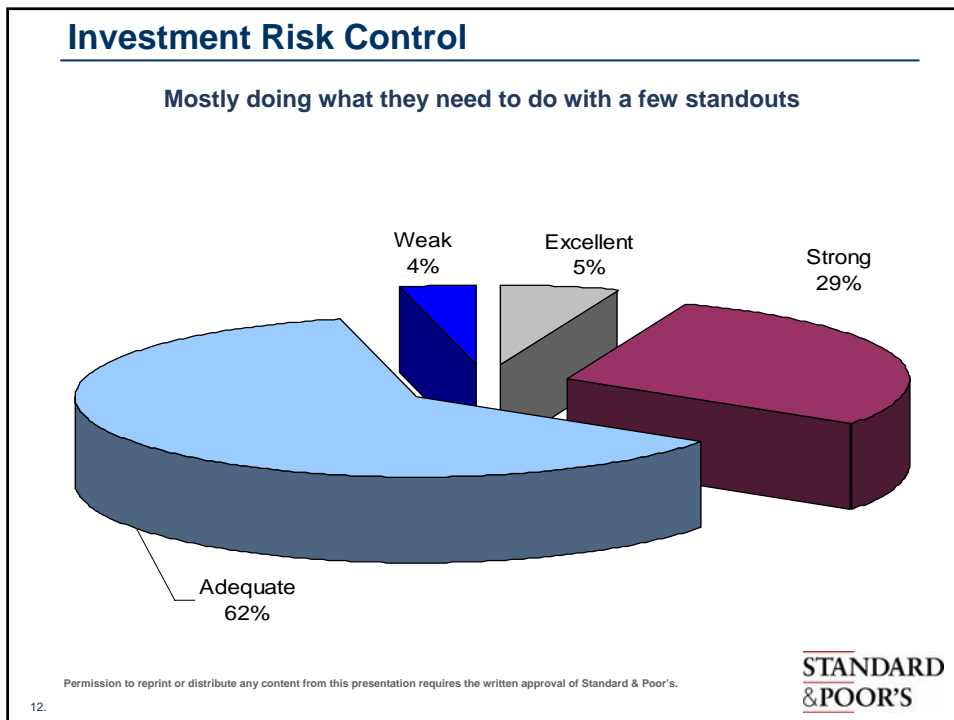


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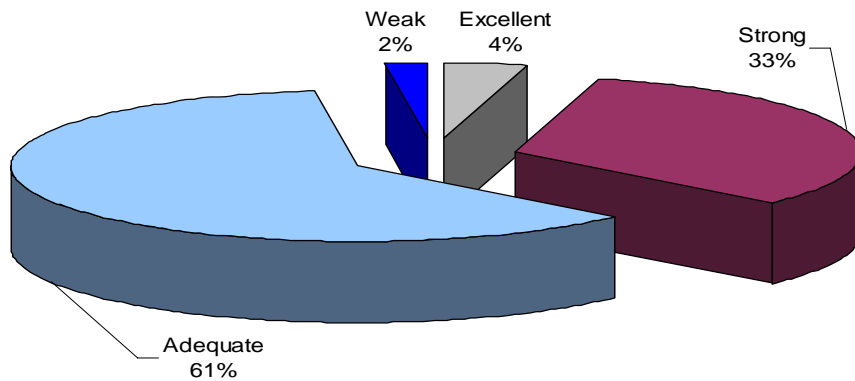
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Insurance Risk Control

Wide range of practices



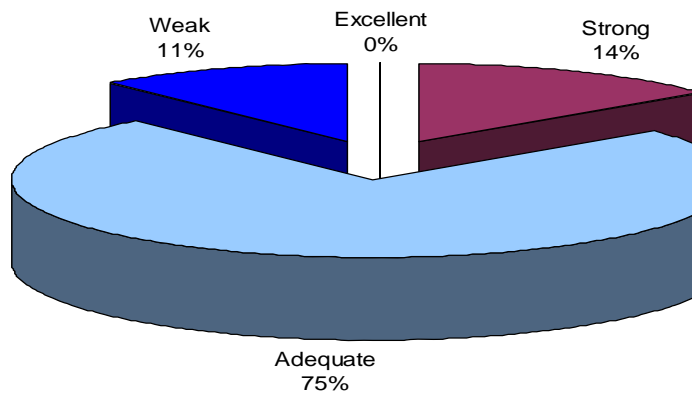
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13.

Operational Risk Control

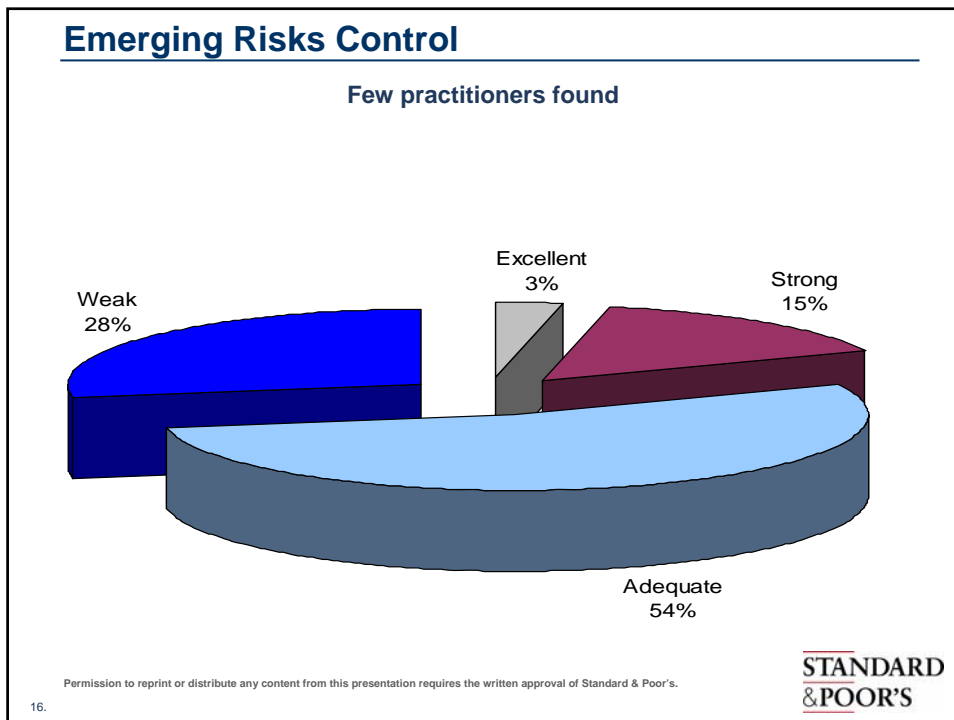
Newish discipline for most insurers

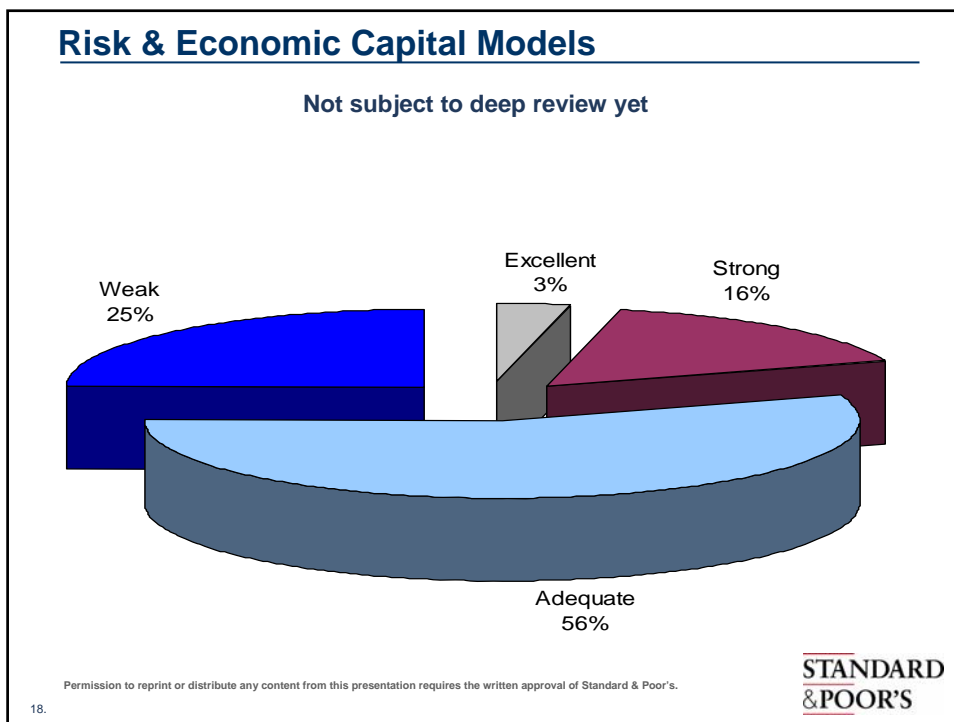
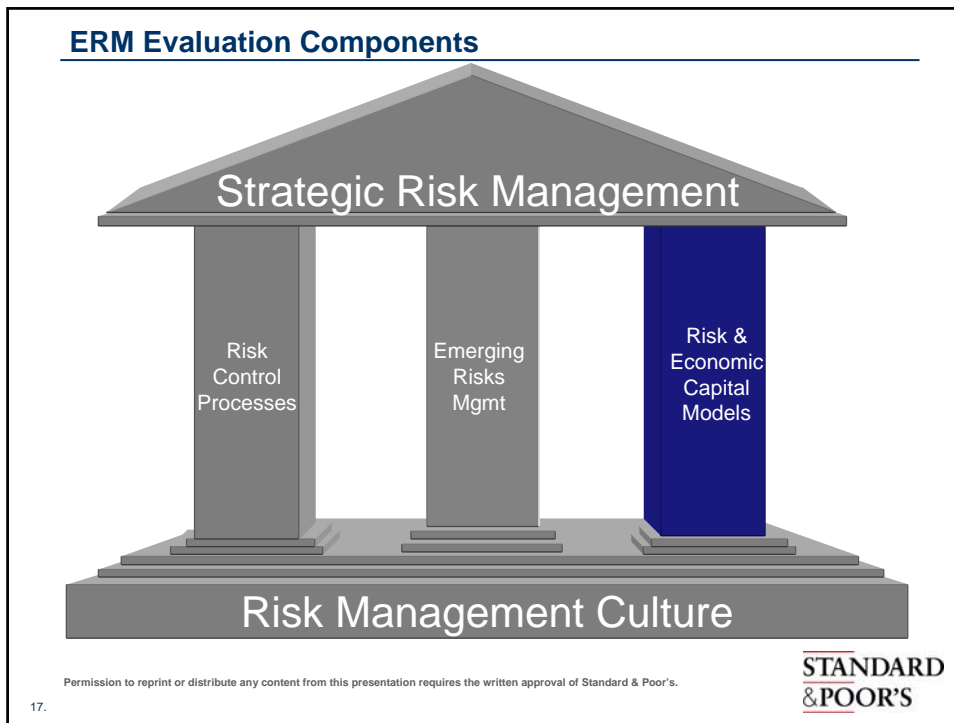


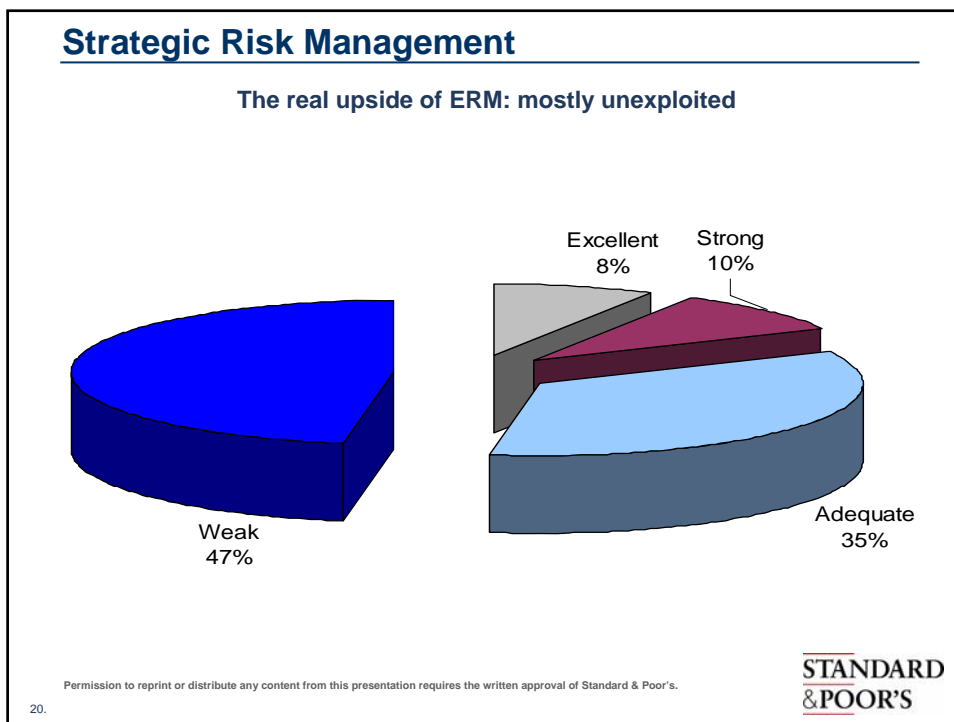
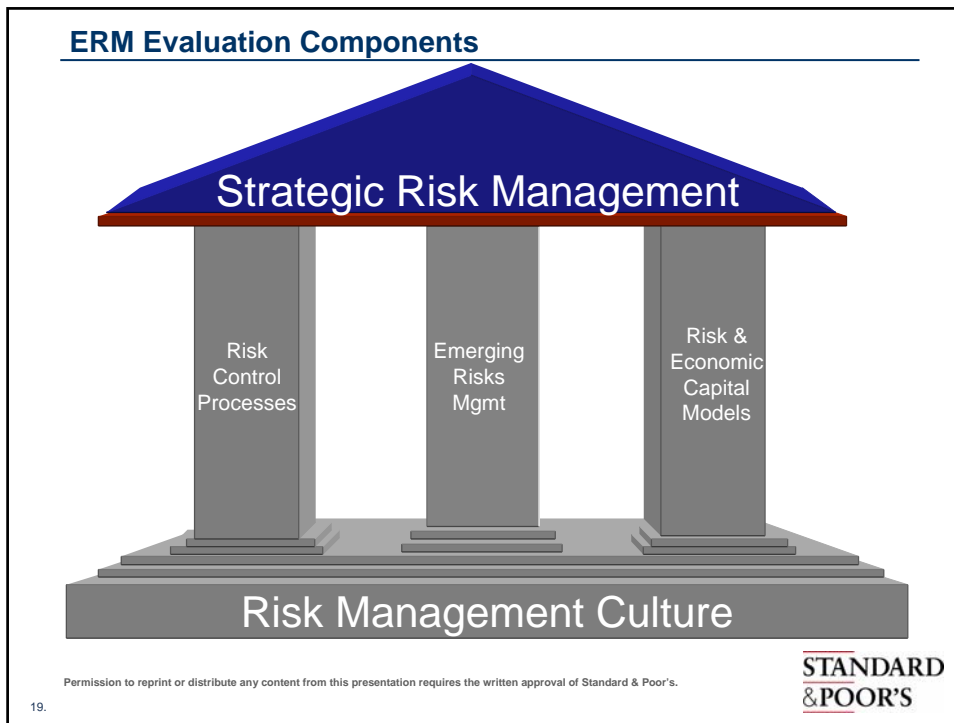
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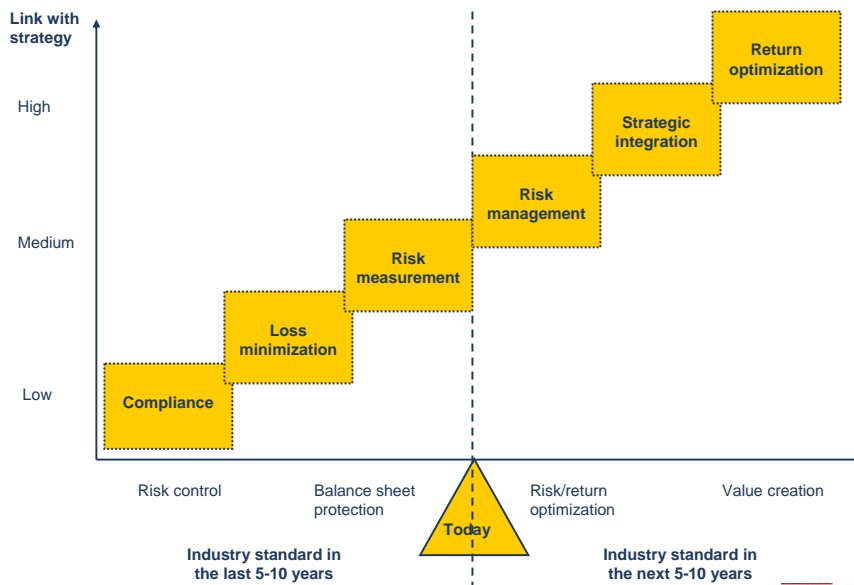
The Upside of ERM

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Evolution of Enterprise Risk Management



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Strategic Risk Management

S&P Ratings Criteria:

- View of risk across all risks to make decisions about optimizing risk adjusted returns!
- Capability to assess trade-offs between different risk types
- Assessment of risk adjusted returns
- Capital budgeting
- Strategic investment allocation

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Strategic Risk Management

Why are we making SRM so important?

- **There are some companies with Superior Risk Management that we will then be judging to be Adequate?!?**
 - Companies with Superior Risk Management (Controls) will have volatility of earnings and incidence of losses within their tolerances
 - Companies with Strong/Excellent ERM will have low volatility of earnings, low incidence of losses **AND will maximize their risk/return relationship!**
- **Strategic Risk Management is the UPSIDE of Risk Management**

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Questions?

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Back-up Slides

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ERM Summary Chart – Life		
	Opinion	Comments
Overall	Excellent, Strong, Adequate, Weak	Key reason(s) for conclusion
Risks	Credit, Market, Insurance, Operational (or sub risks of those broad categories)	A Summary of the Risk Profile of the company. Discussion of changes to the risk profile over the past several years and how management expects it to change over the next several years. Description of the products or investments that give rise to the major risks.
Earnings Vol / Loss Experience	High, Medium, Low Volatility	Summarize 5 year history of earnings volatility and/or loss experience
Importance of ERM to Rating	Very high, high, moderate, low, very low	Indicate whether this ERM opinion should have high impact on rating. Will be high if company has complex risks and/or tight surplus position. Most Health Insurers have low to moderate risks, but some have low surplus positions which could make ERM of high importance.
Review		
Risk Management Culture	Excellent, Strong, Adequate, Weak	<ul style="list-style-type: none"> ▪ The degree to which risk and risk management are important considerations in the every day aspects of corporate decision-making. ▪ The staffing and organizational structure of the people who are charged with executing the risk-management function in the insurer. ▪ The risk management governance structure that is indicative of a high degree of influence on decision-making by risk-management staff. ▪ Communication of risk and risk management—both inside and outside of the insurer — An insurer with a strong risk-management culture will have a very transparent risk-management process within the company and with other interested parties through their public communications.

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ERM Summary Chart – Life		
Risk Controls – Credit	Excellent, Strong, Adequate, Weak	Types of Credit Risk Management Programs: a) Traditional Underwriting standards and concentrations limits b) Sell discipline tied to spread monitoring c) Portfolio Credit Approach supported by Credit VaR model d) Credit Derivative use to refine exposures Best companies have multiple programs. Standard & Poor's will look at quality of program and effectiveness of execution.
Risk Controls – Interest	Excellent, Strong, Adequate, Weak	Types of Interest Risk Monitoring Metrics: a) Duration, DV01 b) Convexity c) Key Rate Duration, Partial Duration Best companies will use multiple measures, clear tolerances, frequent measurement and frequent rebalancing with clear practices for violations. Standard & Poor's will also look for attention to minimum guarantees.
Risk Controls – Equity	Excellent, Strong, Adequate, Weak	Looking for company to have a clear idea of the amount of risk that they are taking as a result of their equity market exposures and a program for maintaining that risk at a predetermined level. If they are hedging risks, Standard & Poor's will look for disciplined program with a sophisticated control structure.
Risk Controls – Insurance	Excellent, Strong, Adequate, Weak	Standard & Poor's is looking for robust underwriting and monitoring processes that are tied to pre-planned actions for significant deviation from expectations.
Risk Controls – New Product	Excellent, Strong, Adequate, Weak	Formal process of identifying and planning for the changes to the insurer's risk profile due to the introduction of a new product, coverage or investment program. Standard & Poor's will especially look for a product development process that allows meaningful impact of risk analysis on the product.

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ERM Summary Chart – Life		
Risk Controls – Operational	Excellent, Strong, Adequate, Weak	Concentration will vary by insurer. Review may focus on Internal Audit, Regulatory & Compliance Risks, IT, Distribution Risk, Outsourcing, Business Continuity and/or risks from major new projects and acquisitions.
Extreme Events & Emerging Risk Mgt	Excellent, Strong, Adequate, Weak	Insurers quality of processes to imagine, assess, prepare for and monitor future risks that are not currently a part of the everyday risk control processes. Might include, but is definitely not limited to Cat reinsurance.
Risk Models	Excellent, Strong, Adequate, Weak	Standard & Poor's will look for an insurer to have capabilities to assess their risk positions with measurement systems that provide timely and actionable information.
Strategic Risk Management	Excellent, Strong, Adequate, Weak	The ability and practice to look across the insurers diverse risks to make decisions about optimizing their risk adjusted returns. This requires both the capability to assess trade-offs between different risk types and an assessment of risk adjusted returns. Would include capital budgeting and strategic investment allocation.
Outlook	Positive, negative, neutral	Many companies will have positive outlook for ERM due to developing nature of ERM



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ERM Summary Chart – P&C		
	Opinion	Comments
Overall	Excellent, Strong, Adequate, Weak	Key reason(s) for conclusion
Risks	Credit, Market, Insurance, Operational (or sub risks of those broad categories)	A Summary of the Risk Profile of the company. Discussion of changes to the risk profile over the past several years and how management expects it to change over the next several years. Description of the products or investments that give rise to the major risks.
Earnings Vol / Loss Experience	High, Medium, Low Volatility	Summarize 5 year history of earnings volatility and/or loss experience
Importance of ERM to Rating	Very high, high, moderate, low, very low	Indicate whether this ERM opinion should have high impact on rating. Will be high if company has complex risks and/or tight surplus position. Most Health Insurers have low to moderate risks, but some have low surplus positions which could make ERM of high importance.
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ERM Summary Chart – P&C		
Risk Controls – Investment	Excellent, Strong, Adequate, Weak	<p>Clear Credit Risk Standards that are monitored and enforced.</p> <p>Target for matching Asset and Liability Durations with monitoring and enforcement.</p> <p>Clear standards for asset allocation, with set limits diversification and investment style with tracking and enforcement procedures when limits are breached</p> <p>Measurement of risk from investments that reflects the company’s actual investment activities with management and board awareness of the level of and changes in investment risk.</p> <p>Counterparty credit risk on reinsurers: acceptance criteria, limits, assignment by line of business.</p>
Risk Controls – Insurance Underwriting	Excellent, Strong, Adequate, Weak	<p>Underwriting Process – Set, monitor and enforce standards</p> <p>Underwriting guidelines – clear documented and enforced standards, which should define delegation of authority, treatment of special lines, escalation and referral procedures.</p> <ul style="list-style-type: none"> * Risk review – Process to ensure risks are reviewed by (experienced and qualified) personnel from relevant practices * Pricing – Process to develop appropriate theoretical price and monitor, limit and enforce deviations. * Process for recording and sharing of pricing information * Cycle Management – Process to identify weak cycle. Planned response and execution in soft market * Claims – process for assessing claims experience and comparing to pricing expectations * Monitoring and feedback mechanism – Underwriting, Pricing and Claims

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ERM Summary Chart – P&C		
Risk Controls – Catastrophe Risk	Excellent, Strong, Adequate, Weak	<ul style="list-style-type: none"> * Exposure concentration limits, monitoring and enforcement process * Model to advise setting concentration limits and to price * Process to set and update model assumptions * Process to feedback strengths, weaknesses and assumptions underlying models
Risk Controls – Reinsurance	Excellent, Strong, Adequate, Weak	<ul style="list-style-type: none"> * Process to assess reinsurance needs: Is it price/capacity based or does it have economic capital considerations? * Process to monitor and enforce compliance with policy * Process to update reinsurance program as conditions change * Process for optimizing risk-return trade-off
Risk Control – Reserve Risk	Excellent, Strong, Adequate, Weak	<ul style="list-style-type: none"> * Processes for dealing with: * Uncertainty * Data quality and volume * Emerging changes in development * Changes in legal environment * Changes in claims environment * Changes in underwriting and claims management processes * Reserving across the cycle(s) * Large and disputed claims * Process for giving feedback to Pricing & Underwriting processes
Risk Controls – New Product	Excellent, Strong, Adequate, Weak	<p>Formal process of identifying and planning for the changes to the insurer’s risk profile due to the introduction of a new product, coverage or investment program. Standard & Poor’s will especially look for a product development process that allows meaningful impact of risk analysis on the product. Assessment of group wide accumulation before product approval</p>

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