

ERM from a Small Insurance Company Perspective

NABRICO
Sept 30, 2011



Agenda

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| Section 1 | ERM Introduction |
| Section 2 | Key Risks |
| Section 3 | Streamlined Quantitative Process |
| Section 4 | Other Influences |

Section 1: ERM Introduction



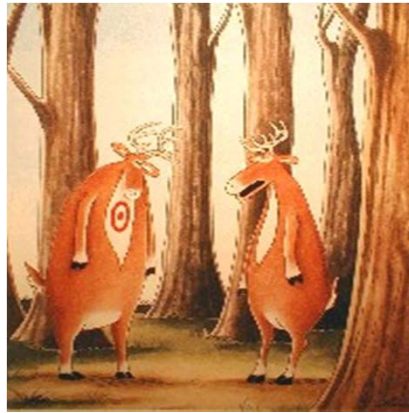
Enterprise Risk Management

“Enterprise Risk Management” means different things to different people...

- Actuary: ERM = Calculate Economic Capital
 - looks like DFA
- Accountant: ERM = SOX/COSO compliance
 - looks like internal audit
- CEO\CFO: ERM = No earnings surprises
 - looks like stable income
- CRO: ERM = Opportunity for a new role
 - looks like Hal



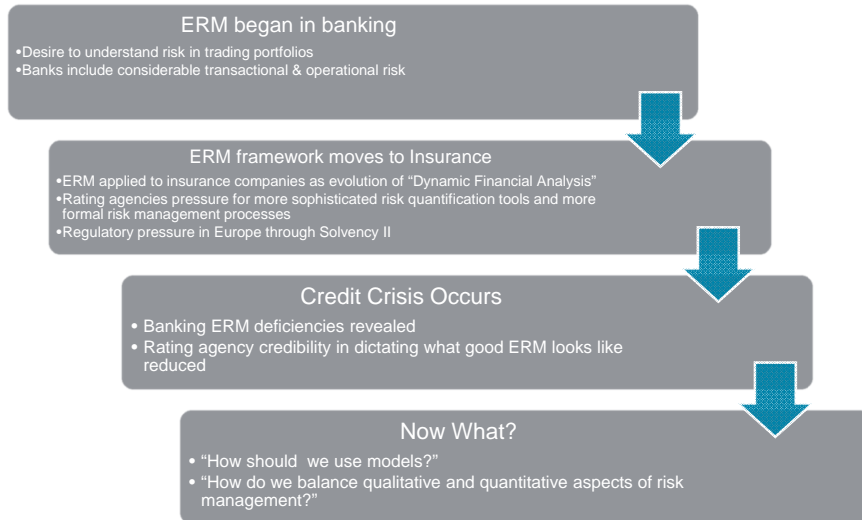
Enterprise Risk Management



“Bummer of a birthmark Hal”

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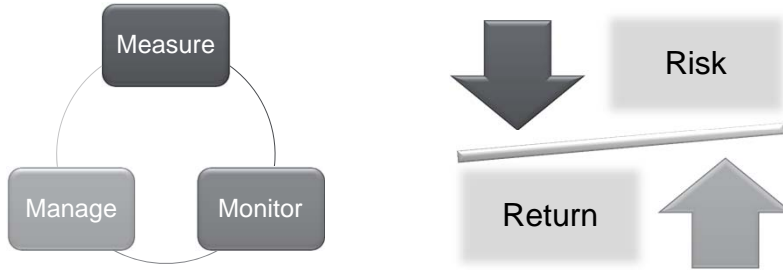
ERM – A Brief History of Time



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Enterprise Risk Management Defined

Ensuring you are properly compensated for the risks you assume



- Specify risk tolerance and manage within it
 - Must understand risks individually to determine premium adequacy
 - Must understand how risks aggregate to assure risk taking is aligned with risk capacity
- Complexity of task increases exponentially with size of organization

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Capacity, Tolerance, Appetite and Limits

Capacity

Ultimate ability to assume and absorb risk

Tolerance

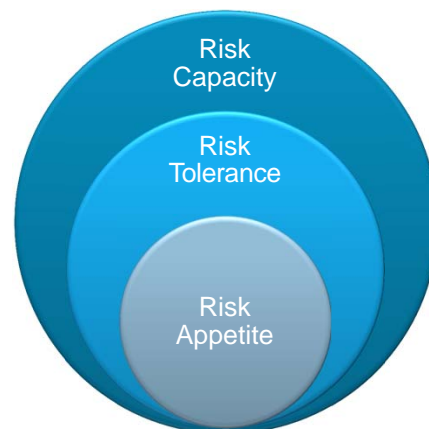
Undesirable risk that is tolerated

Appetite

Desirable risk, subject to the reward being adequate

Risk Limits

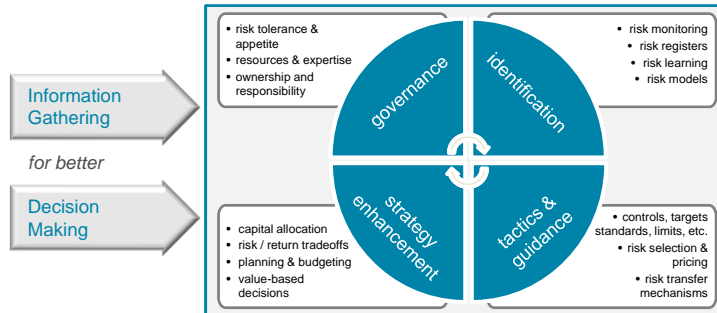
Silo-based criteria to help guide transactional risk-taking



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Enterprise Risk Management Key Components

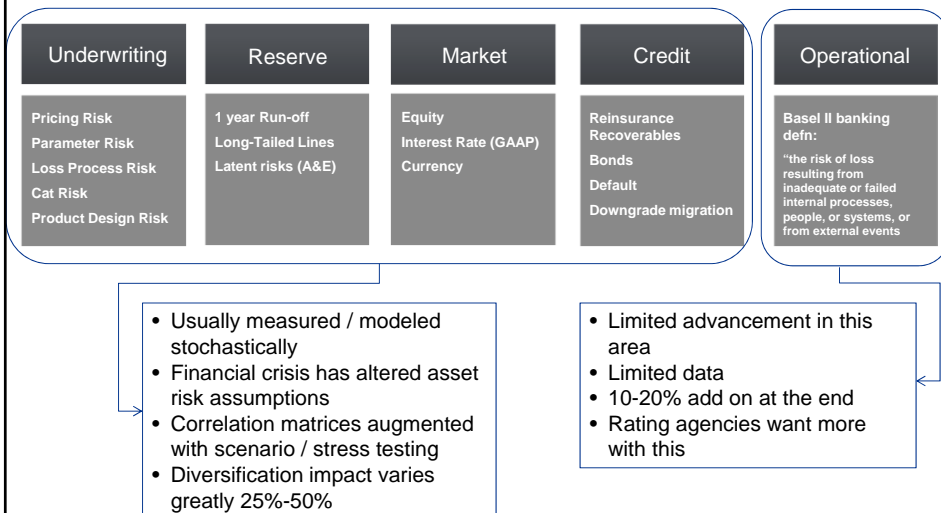


- ERM is a process that facilitates an efficient means to gather, organize, prioritize and validate information, such that management is positioned to make better decisions
- ERM is not software, a model, a project, a risk register, etc.; it embodies several quantitative and qualitative components that in balance supports value creation
- ERM is more about supporting strategy and exploiting opportunity and less about simply controlling risk
 - Measure, monitor, and manage risk
 - Assure firm is properly compensated for taking risks
- Complexity of task increases exponentially with the size of the firm

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Key Risks



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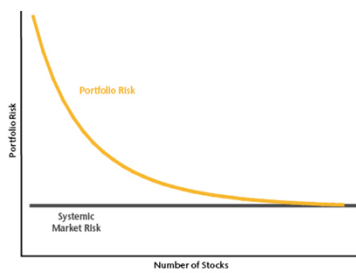


Section 2: Key Risks

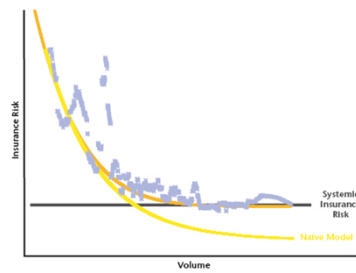


Underwriting Risk: Systemic Risk

Asset Portfolio Risk



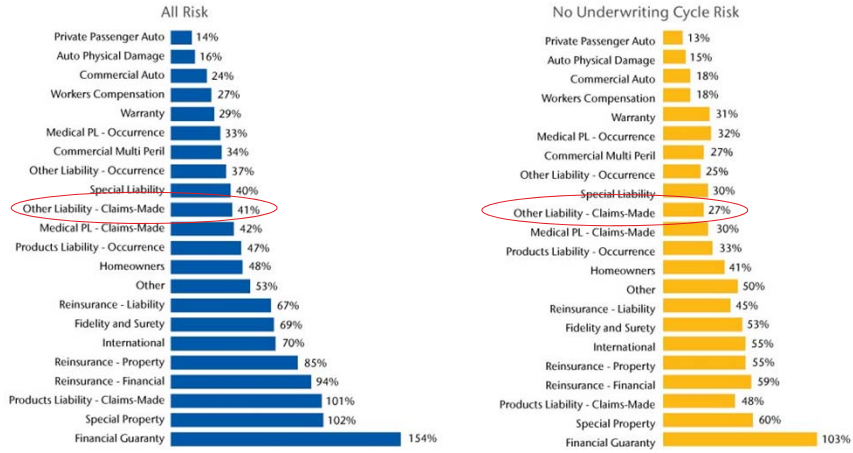
Insurance Portfolio Risk



- Underwriting cycle, macroeconomic trends, legal changes etc. mean a certain level of systemic insurance risk always exists
- Insurers must estimate key elements when pricing to later find out the true level of the key elements



Underwriting Risk Parameters: Coefficient Of Variation Of Gross Loss Ratio, 1992-2010



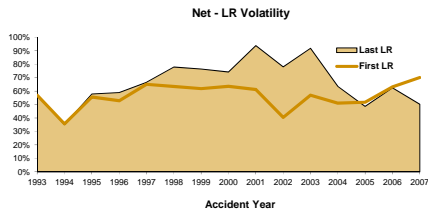
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Reserve Risk: The Silent Killer

Reserves impact current income

- Prior accident years initial LRs too low



Event	Nominal Loss
Asbestos & Environmental	117.0
Hurricane Katrina	41.1
AY 2000 Development*	22.0
AY 1999 Development*	19.3
September 11th	18.8
Hurricane Andrew	15.5
Northridge Earthquake	12.5
Hurricane Ike	12.5
AY 1998 Development*	12.1
AY 2001 Development*	10.5

Reserve risk: large solvency threat

- A.M. Best's 2011 Impairment Study: 54% of impairments from 1969 – 2010 can be attributed to reserve deficiencies & rapid growth
- Individual accident year development account for 4 of the 10 largest U.S. P&C industry events.
- Combined reserve development in 1998 – 2001 amounts to USD64 billion 55% more than Katrina

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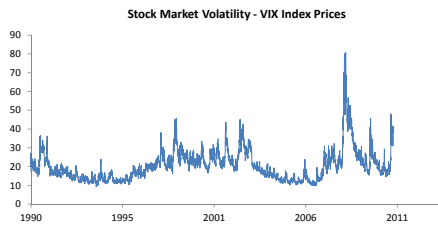
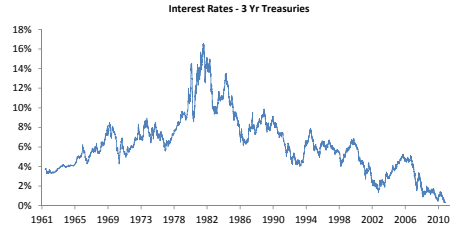


Market Risk – Interesting Times

- Interest Rates extremely low
 - where can they go?
 - Any more levers to pull?
- Stock market volatility high

Headlines:

- SHILLER Index: House Prices Probably Won't Hit Bottom For Years
- Ben White: "Europe's Crisis Is Real, Ours Is Self-Inflicted"
 - Debt ceiling?
 - Super committee?



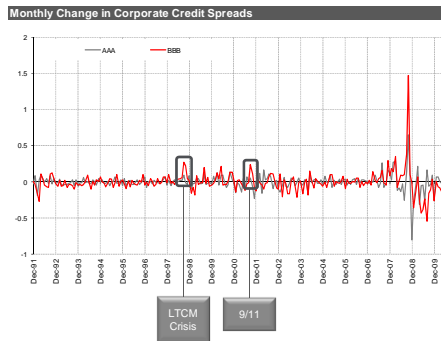
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Credit Risk - Crisis Lessons

Through December 2006, calibrating asset risk to historical data would have been driven by stressed scenarios of the LTCM bailout and 9/11.



October 2008 increase in spreads would have been an 11-18 sigma event on top of a September that was a 4-8 sigma change

- Calibrating to historical data prior to 2007 is like basing earthquake risk estimates upon the volatility of daily paid earthquake losses

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Operational Risk – Simple...A Check list

Things on list:

- Succession plan
- Data protected
- Systems backed up and redundancy in place
- D&O insurance
- Etc

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Section 3: Streamlined Quantitative Process

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ERM Goals

Overall Goals

- Produce a reasonable return
- Smooth income
- Protect capital

Small Company Requirements

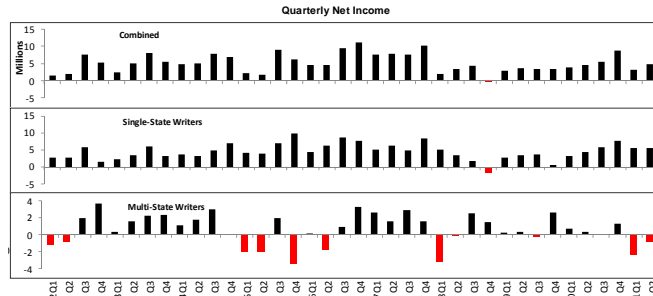
- Reliable
- Easy to maintain
- Not a large investment

Starting Point:

- Past Performance
- What has caused negative income for LPL carriers?

Alternative:

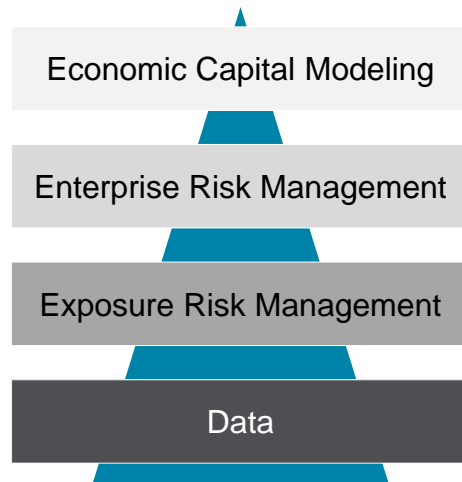
- Level of stress that causes co' to fail?
- What risks can drive this?



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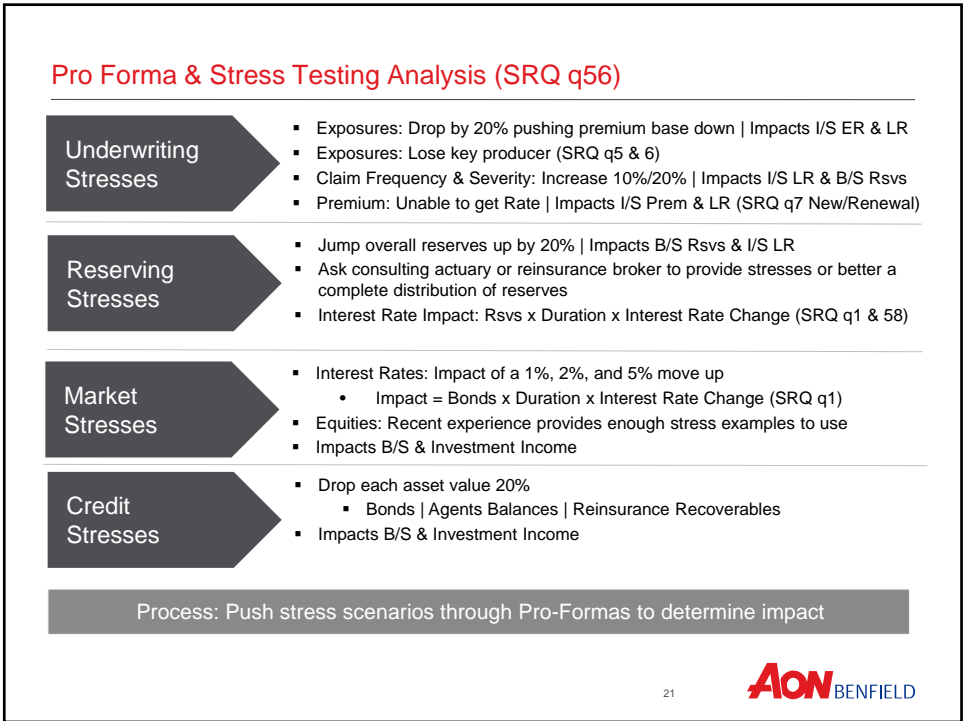
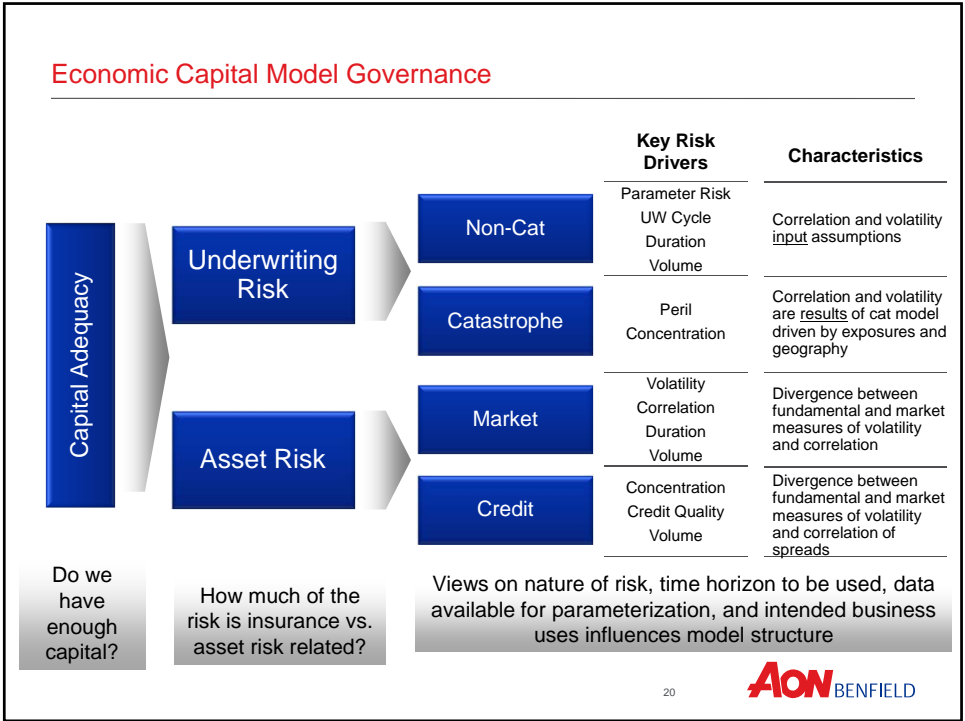
ERM and the Risk Management Process



- Good data is the foundation of risk management
- Exposure risk management impossible without reliable reporting and data capture
- ERM impossible without good exposure risk management
 - Risk aggregations
 - Risk limits
 - Cat model inputs
- ECM relies on good ERM foundation
 - ECM worthless if risk controls not adequate to ensure models reflect current realities
 - S&P will not review capital models from companies without a strong or excellent ERM rating

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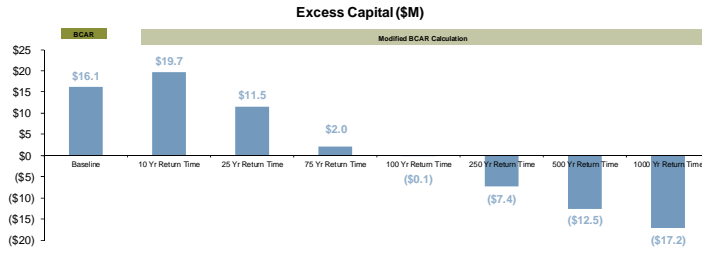




Modified BCAR

Lawyers Mutl Liab Ins Co of NC: Capital Views - BCAR

	Capital View		Modified BCAR						
	AM Best BCAR	Baseline	10 Yr Return Time	25 Yr Return Time	75 Yr Return Time	100 Yr Return Time	250 Yr Return Time	500 Yr Return Time	1000 Yr Return Time
Asset Risk	8,430	8,430	9,904	13,178	17,196	17,907	20,878	22,796	24,279
LW Risk	25,724	25,724	8,516	12,853	17,680	18,905	22,742	25,591	28,423
Other Risk	2	2							
Required Capital - Undiversified	34,156	18,421	26,031	34,876	36,811	43,619	48,387	52,702	
Diversification & Profit Adjustments	14,341	1,328	2,678	4,214	4,543	5,714	6,516	7,220	
Required Capital - Diversified & Profit Adjusted	19,815	17,093	23,353	30,662	32,268	37,905	41,871	45,482	
Policy Holder Surplus	41,432	41,432	41,432	41,432	41,432	41,432	41,432	41,432	41,432
Adjusted Policy Holder Surplus	41,893	41,893	41,893	41,893	41,893	41,893	41,893	41,893	41,893
Excess Capital	16,134	19,673	11,534	2,033	(56)	(7,384)	(12,539)	(17,234)	



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Section 4: Other Influences



Rating Agency ERM Review Approach

- A.M. Best's analytical framework for assessing ERM characteristics consists of three focal areas:



- Foundation of a Risk Management framework includes traditional practices and controls – five key risk considerations:
 - Credit Risk (e.g., counterparty credit risk)
 - Market Risk (e.g., interest rate risk, investment risk, etc.)
 - Underwriting Risk (e.g., pricing, reserves, etc.)
 - Operational Risk (e.g., fraud, data security, etc.)
 - Strategic Risk (e.g., adverse business decisions, etc.)
- Series of new questions in 2011 SRQ with a focus upon risk tolerance

- S&P ERM assessments may consider five focal areas



- Key drivers for reaching strong or excellent ERM consist of clear evidence of:
 - Robust risk culture and clearly articulated group risk appetite
 - Strong or better controls for the firm's key risks
 - An effective emerging risk management process
 - Risk / reward optimization and strong strategic risk management

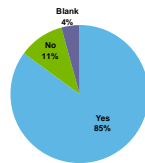
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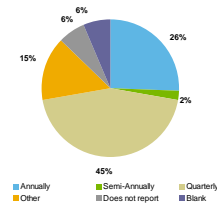
Distribution of ERM SRQ Responses (47 clients)

Risk Culture

55a. CRO?

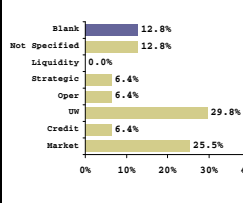


55e. Board reporting

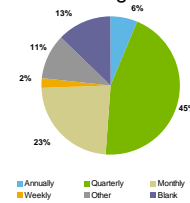


Risk Monitoring

56b. Largest threat

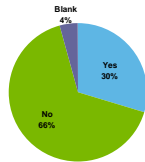


56f. Frequency of measuring risks

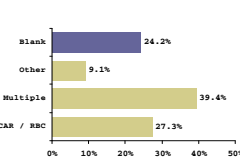


EC Models

57a. ECM?

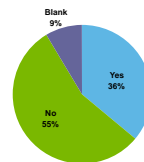


57b. If "No", other tools

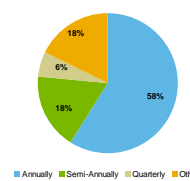


Inflation

58a. Impact analysis?



58b. How often?



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Regulatory Activity

Solvency II	<ul style="list-style-type: none"> ▪ Harmonizing and improving insurance regulation across Europe ▪ Three pillars: risk quantification, risk management & governance, and disclosure ▪ Start date expected Jan 2013, with transitional period of up to 10yrs ▪ Significant regulatory uncertainty
NAIC Modernization Initiative	<ul style="list-style-type: none"> ▪ Focused upon Capital Requirements, Governance and Risk Management, Group Supervision, Accounting/Financial Reporting, and Reinsurance ▪ Update to RBC factors and formula, with likely inclusion of a catastrophe risk charge ▪ Reinsurance accreditation and collateral revisions
Own Risk Solvency Assessment (ORSA)	<ul style="list-style-type: none"> ▪ Companies will be required to have a documented risk management policy ▪ Quantitative measurement of risk exposure including stress condition evaluations ▪ Prospective solvency assessment demonstrating current risk tolerances and financial resources are sufficient to execute on its 3-5 year business plan in normal and stressed conditions

Regulatory activity is increasing the focus upon ERM initiatives

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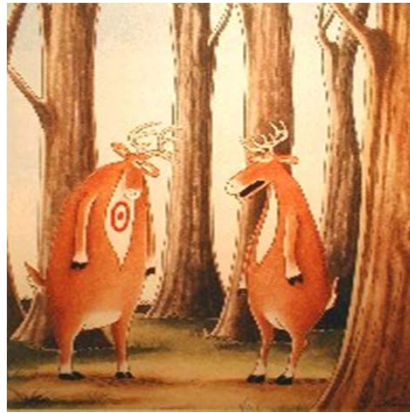
NAIC's Solvency Modernization Initiative (SMI) Overview

- What is it? Per NAIC: "Critical self-evaluation to update the US's insurance solvency regulation framework..." Will consider:

<p style="text-align: center;">What's everybody else doing?</p> <div style="background-color: #333; color: white; padding: 5px; margin-bottom: 5px;">International Insurance Regulations</div> <p style="margin-left: 20px;">e.g., Canada, Swiss, UK</p> <div style="background-color: #333; color: white; padding: 5px; margin-bottom: 5px;">International Accounting Standards</div> <p style="margin-left: 20px;">i.e., IFRS</p> <div style="background-color: #333; color: white; padding: 5px; margin-bottom: 5px;">International Banking Supervision</div> <p style="margin-left: 20px;">i.e., Basel II / III</p>	<p style="text-align: center;">Five Focal Areas</p> <div style="background-color: #333; color: white; padding: 5px; margin-bottom: 5px; text-align: center;">Capital Requirements</div> <div style="background-color: #333; color: white; padding: 5px; margin-bottom: 5px; text-align: center;">Governance and Risk Management</div> <div style="background-color: #333; color: white; padding: 5px; margin-bottom: 5px; text-align: center;">Group Supervision</div> <div style="background-color: #333; color: white; padding: 5px; margin-bottom: 5px; text-align: center;">Accounting / Financial Reporting</div> <div style="background-color: #333; color: white; padding: 5px; margin-bottom: 5px; text-align: center;">Reinsurance</div>
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Questions?



"Bummer of a birthmark Hal"

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