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## 55 - Emerging Risks: A Global Perspective

April 1, 2014  
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### What are Emerging Risks

- Evolving risks (creeping, mean reverting)
  - Home mortgage market
  - Climate change
- Tail risk (recently unseen)
  - Earthquake/asteroid/disease
- Rumsfeld's Knowns/Unknowns





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### Emerging Risks

- May be internally or externally generated
  - Higher order impact/interaction (e.g., oil spill/tourism)
  - May be positive event (e.g., GM foods)
- Next big risk is likely to be something new
- Outliers
- Time horizon


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## Survey

- Emerging risks (23)
- Top 5 emerging risks (including #1)
- Anchoring
- Current topics
- Is ERM improving results?



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## Emerging Risks

- Economic
  - Oil price shock
  - Fall in value of US \$
  - Chinese economic hard landing
  - Blow up in asset prices
  - Financial volatility
- Environmental
  - Climate change
  - Freshwater loss
  - Tropical storms
  - Earthquakes
  - Severe weather



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## Emerging Risks

- Geopolitical
  - International terrorism
  - Weapons of mass destruction
  - Interstate/civil wars
  - Failed and failing states
  - Transnational crime
  - Globalization fallback
  - Regional instability
- Societal
  - Infectious diseases
  - Chronic diseases
  - Demographic shift
  - Liability regimes/regulations
- Technological
  - Cyber security / infrastructure
  - Technology / Space weather



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## Current Environment Matters

### April 2008

- Oil price \$114
- S&P 500 1,386
- Currency 1.56 \$/Euro

### November 2008

- Oil price \$68
- S&P 500 969
- Currency 1.27 \$/Euro

### Fall 2012

- Oil price \$92
- S&P 500 1,440
- Currency 1.29 \$/Euro

### September 2013

- Oil price \$102
- S&P 500 1,681
- Currency 1.35 \$/Euro




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## Anchoring – Behavioral Finance

### • April 2008

- 57% Oil price shock
- 40% Climate change
- 40% Blow up in asset prices

### • October 2013

- 59% Financial volatility
- 47% Cyber security/ Infrastructure
- 30% Blow up in asset prices
- 30% Demographic shift
- 29% Failed and failing states
- 29% Regional instability




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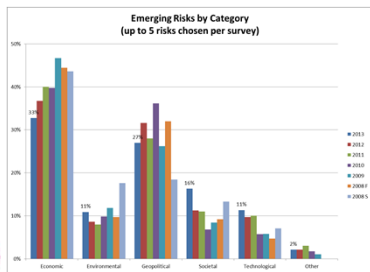
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## Top Emerging Risks




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### Trending the Top Risks

S2008	F2008	2010	2013
Oil price shock	Blow up in asset prices	Fall in value of US \$	Financial volatility
Climate change	Fall in value of US \$	International terrorism	Cyber security
Blow up in asset prices	Oil price shock	Chinese economic hard landing	Blow up in asset prices
Fall in value of US \$	Regional instability	Oil price shock	Demographic shift



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### Interesting Revelations

- Technological and Societal spiked (Cyber/regulations)
- Geopolitical and Economic fell (Regional instability/Oil price shock)
- Financial volatility dominance (24% pick #1)
- Worried about Cyber security (#2)
- Climate change/space weather not trending



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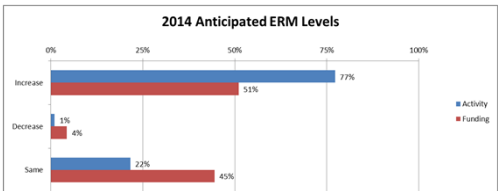
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### Doing more with less?

2014 Anticipated ERM Levels



Category	Activity	Funding
Increase	77%	51%
Decrease	1%	4%
Same	22%	45%



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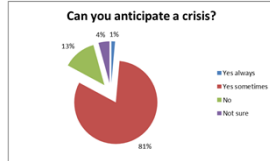
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## Predicting the Future

- Predicting potential ranges of outcomes
- Not predicting actual future events
- **“to be prepared to react is the goal”**
  - Flexibility
  - Common sense




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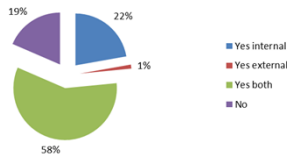
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## Do ERM efforts lead to improved risk/return ratios?




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## Is ERM Working? NO

- ERM is a way for a company to "feel good"
- Illusion of activity without much substance
- ERM gives a false sense of security
- Compliance driven
- Analogy: reduces likelihood of fender-bender, but not likelihood of a serious collision




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## Is ERM Working? YES

- Decision makers are engaged
- Greater awareness of potential risks
- Improved risk profile
- Better risk management in the industry allows more realistic pricing
- Best practices incorporate strategic planning



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## Avoiding the “Perfect Storm”

- Environmental scanning
- Gaussian copout
  - Once per century events don't happen 4 days in a row
- Involve people with varying perspectives
- Think for yourself!



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## To access surveys/articles

<http://www.soa.org/Research/Research-Projects/Risk-Management/research-emerging-risks-survey-reports.aspx>



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Thank you!  
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