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E9A - Emerging Risks: A Global Perspective

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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



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



Survey

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



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



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



Current Environment Matters

- | | |
|---|---|
| <p>April 2008</p> <ul style="list-style-type: none"> ➢ Oil price \$114 ➢ S&P 500 1,386 ➢ Currency 1.56 \$/Euro <p>November 2008</p> <ul style="list-style-type: none"> ➢ Oil price \$68 ➢ S&P 500 969 ➢ Currency 1.27 \$/Euro | <p>Fall 2012</p> <ul style="list-style-type: none"> ➢ Oil price \$92 ➢ S&P 500 1,440 ➢ Currency 1.29 \$/Euro <p>September 2013</p> <ul style="list-style-type: none"> ➢ Oil price \$102 ➢ S&P 500 1,681 ➢ Currency 1.35 \$/Euro |
|---|---|

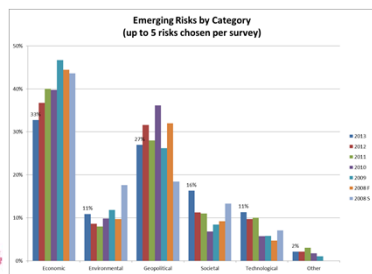


Anchoring – Behavioral Finance

- | | |
|--|---|
| <ul style="list-style-type: none"> • April 2008 <ul style="list-style-type: none"> - 57% Oil price shock - 40% Climate change - 40% Blow up in asset prices | <ul style="list-style-type: none"> • October 2013 <ul style="list-style-type: none"> • 59% Financial volatility • 47% Cyber security/ Infrastructure • 30% Blow up in asset prices • 30% Demographic shift • 29% Failed and failing states • 29% Regional instability |
|--|---|



Top Emerging Risks





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



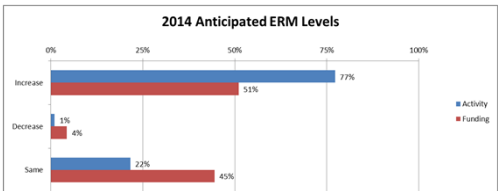
Interesting Revelations

- 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





Doing more with less?

2014 Anticipated ERM Levels

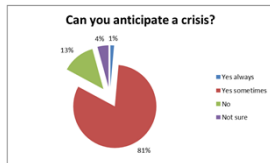


Category	Activity	Funding
Increase	77%	51%
Decrease	1%	4%
Same	22%	45%

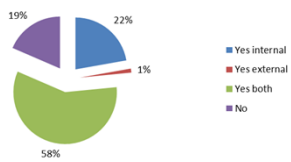


Predicting the Future

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



Do ERM efforts lead to improved risk/return ratios?



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



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



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!



To access surveys/articles

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



Thank you!
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 - SOA President's Award
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