# **Emerging Risks**

ERM Symposium – CS24 May 3, 2019 11 am – 12:15 pm Max J. Rudolph, FSA CFA CERA MAAA

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### **Survey of Emerging Risks**

- Annually since 2008
- Sponsored by Joint Risk Management Section
  - Canadian Institute of Actuaries (French translation)Casualty Actuarial Society
  - Casualty Actuarial So
     Society of Actuaries

2

- Mix of quantitative and qualitative
- Expect full report to be released in late summer

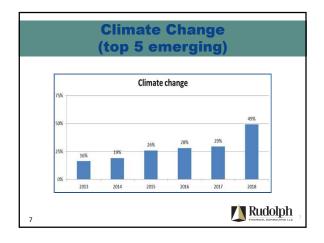


Survey of Emerging Risks 23 Risks (Slide 1 of 2)							
Economic	Environmental						
Energy price shock	Climate change						
Currency shock	Freshwater loss						
Chinese destabilization	Tropical storms						
Asset price collapse	Earthquakes						
<ul> <li>Financial volatility</li> </ul>	Severe weather						

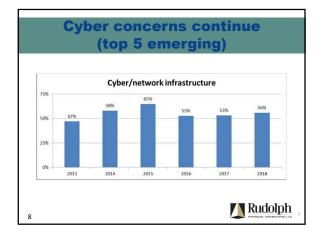
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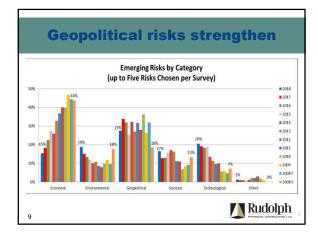


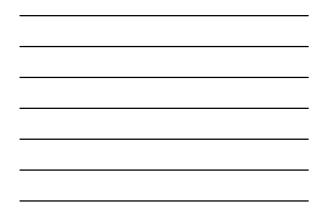












Top (5) Emerging Risks Over Time							
	Year	2015	2016	2017	2018	1	
	1	Cyber/network infrastructure	Cyber/network infrastructure	Cyber/ network infrastructure	Cyber/ network infrastructure		
	2	Financial volatility	Financial volatility	Terrorism	Climate change		
	3	Terrorism	Terrorism	Technology	(Disruptive) Technology		
	4	Asset price collapse	Technology	Regional instability	Demographic shift		
	5	Regional instability	Retrenchment from globalization	Asset price collapse	Financial volatility		
10					R	udolph	



# • Climate change (12%)

- Cyber/network infrastructure (12%)
- Financial volatility (11%)
- Asset price collapse (8%)
- Technology (7%)

11

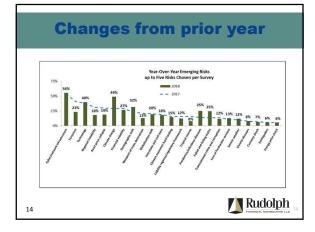
## **Top Emerging Risks**

- Climate change (22%)
- Cyber/network infrastructure (15%)
- Technology (13%)
- Financial volatility (5%)
- Demographic shift (5%)

12

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# Top Risks in Combination Financial volatility (11%) Cyber/network infrastructure (10%) Terrorism (9%) Asset price collapse (7%) Globalization shift and Regional instability (tied with 6%)





15

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Thank you! Max J. Rudolph, FSA CFA CERA MAAA						
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16						