



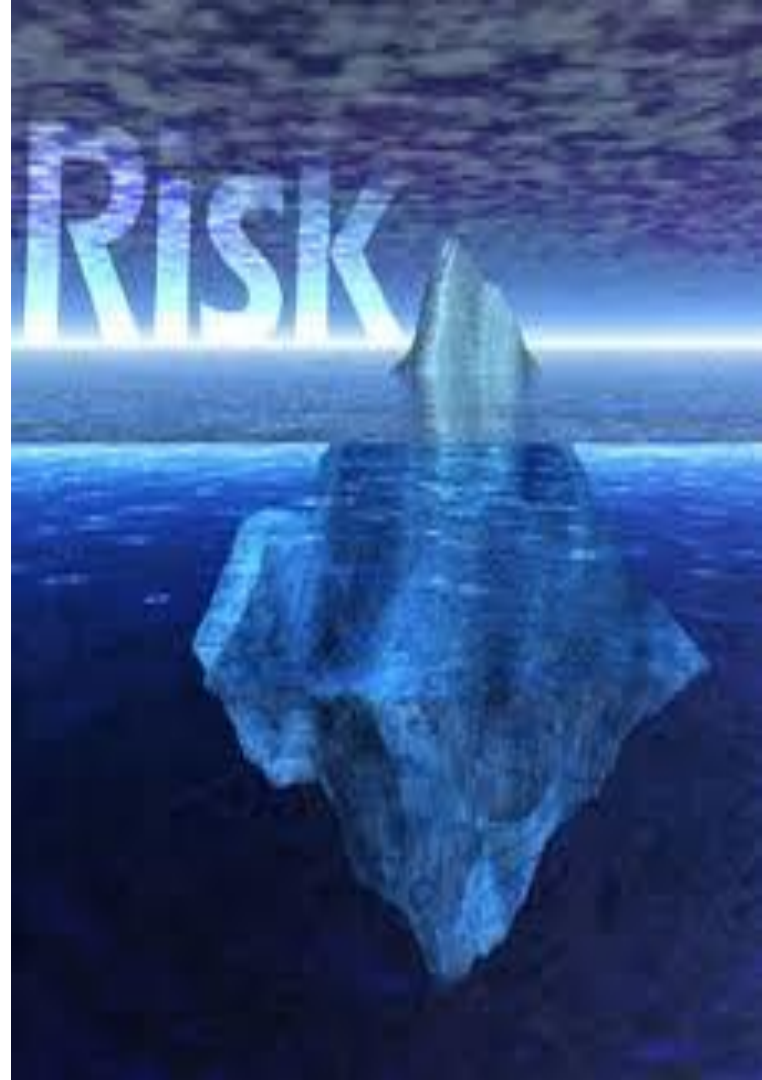
# Risk Management Beyond just Compliance

Young Actuaries Program

Hong Kong

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Presented by Kelvin Chan



# What is the meaning of risk?

“riscare” (Old Latin) = to dare

**1**

How to exploit new opportunities?

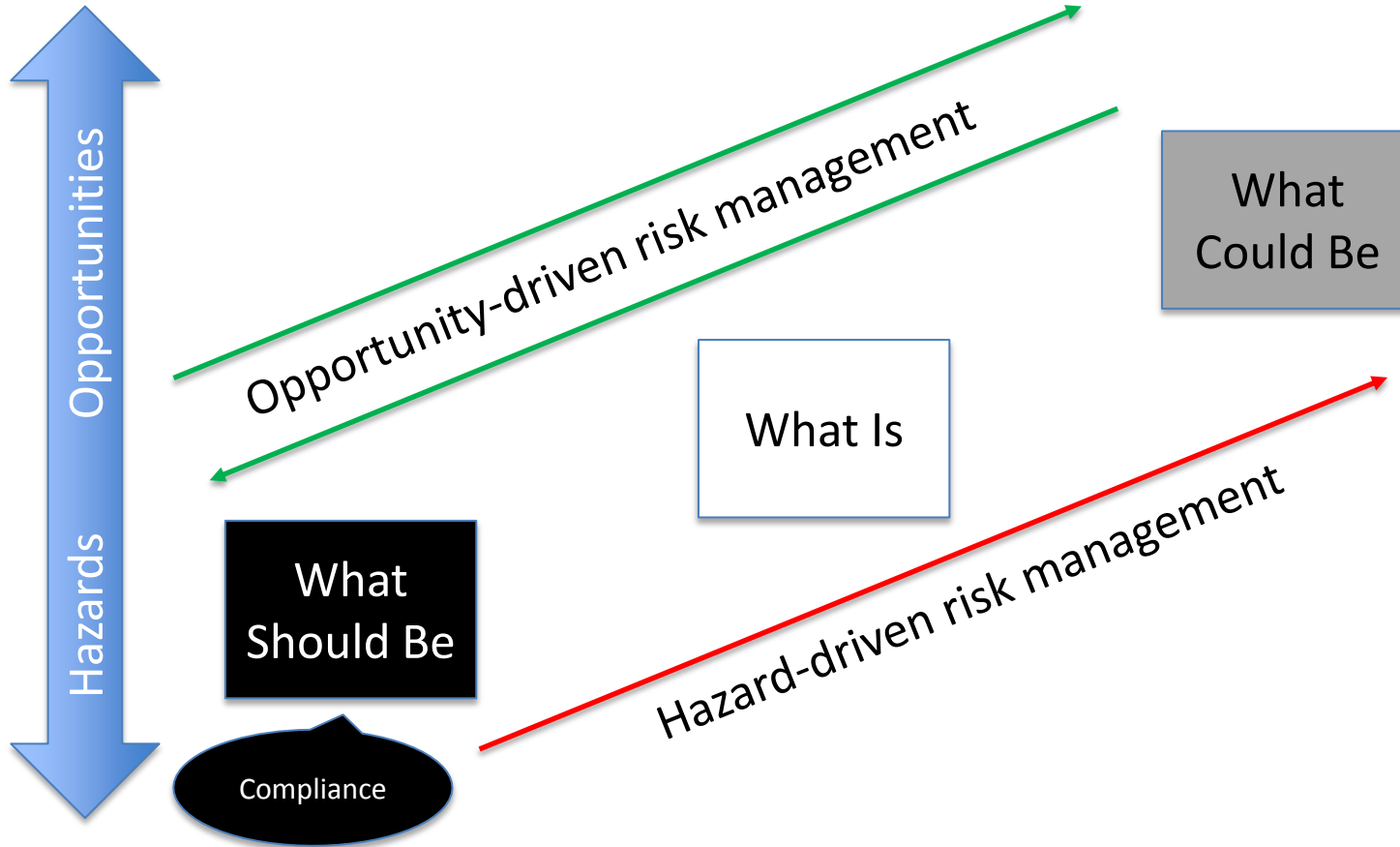
**2**

Can we improve a product or service?

**3**

Can we achieve excellence and value?

# The Risk Perspective Continuum



## Following “best practice”



# Three misconceptions about risk management

1

Managing risk requires figuring out what is going to happen in the future

- Think in terms of probabilities
- We cannot know everything
- Be optimistic but plan for the worst

2

Your risk appetite will remain static

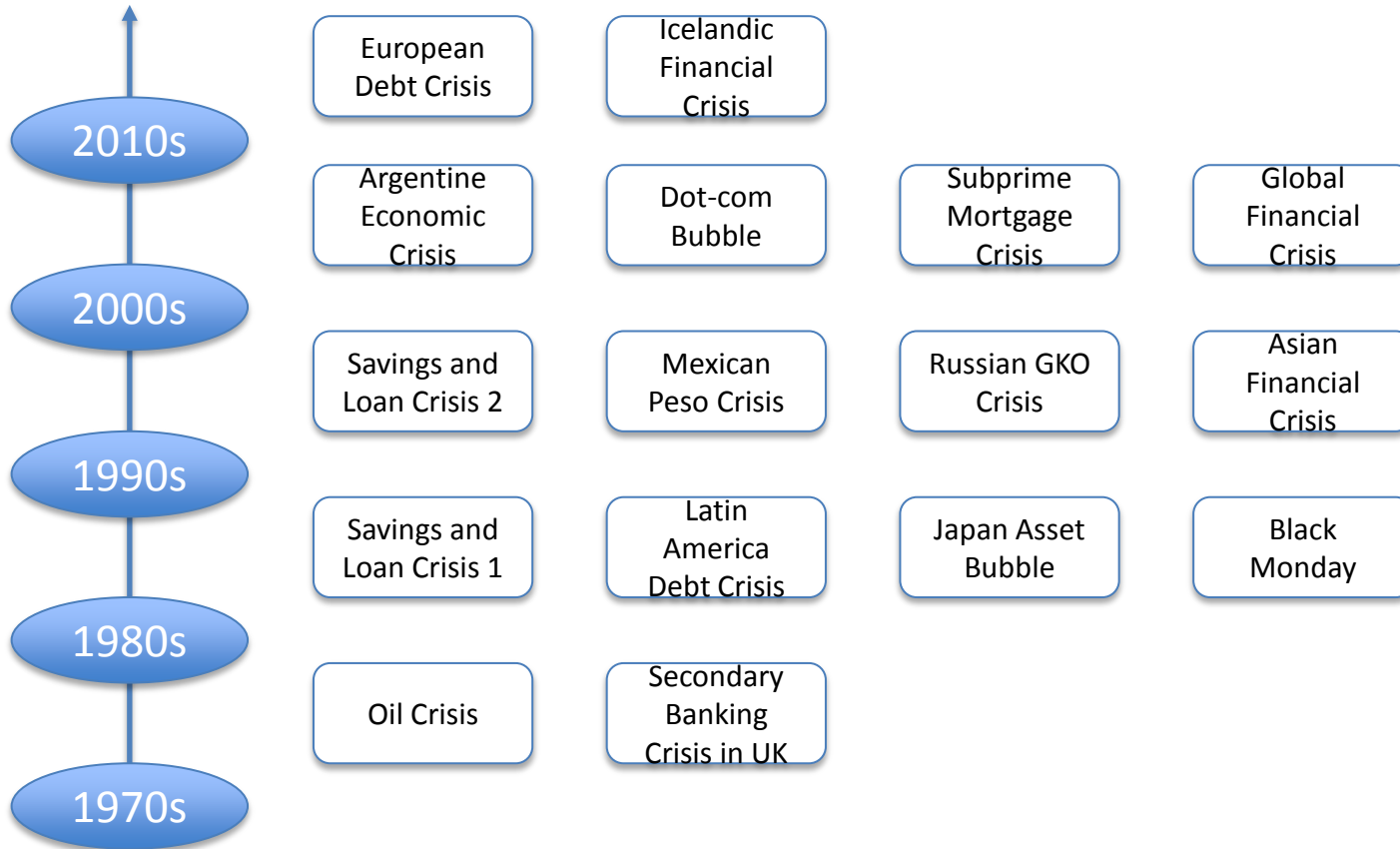
- Perception of risk should evolve
- Monitor for emerging risk
- Have multiple gears

3

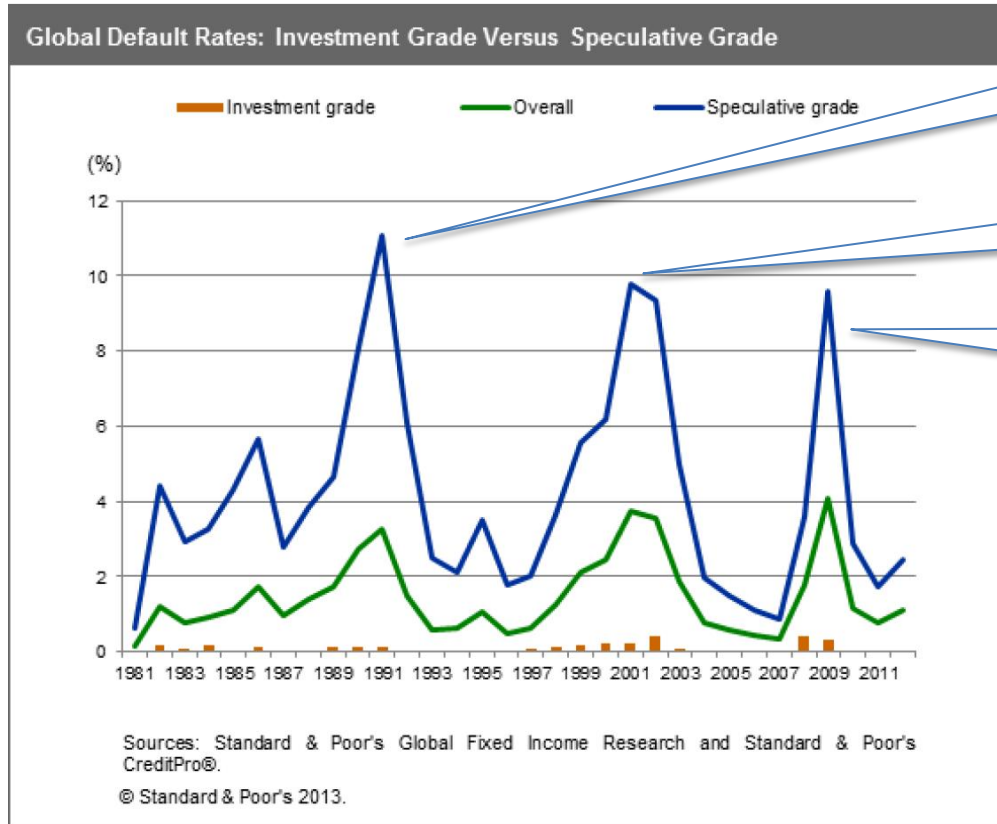
A risk model will save you

- 1 in 200 scenarios will surprise you
- Use models to provide perspective
- Role-play scenarios and mitigate

# What have we learned from these crises?



# Severe events will happen in cycles again!



Savings & Loans Crisis

Dot Com Bubble

Global Financial Crisis

Human behaviour is at the heart of past, present and future crises.

# Managing Risk | Managing Emotion

1

Emotion always overrides logic in the decision making process

2

Trade-offs and complexity is hard to assess even with more information

3

People are not risk-averse, they are loss-averse



Need for a  
pro-active Risk  
Management  
Process

\* Daniel Kahneman and Amos Tversky, "Prospect Theory"



## Case Study: Vitasoy

- Originally the Hong Kong Soya Bean Products Company in 1940
- What was the risk?
  - 1974 – global fuel prices escalated and the price of futures in sugar, soybeans and other commodities doubled.
  - Company profits plunged 96% within a year putting the company on verge of bankruptcy.
- Solution
  - Swedish Tetra Pak technology.
  - Iconic cartons were introduced in 1975 and are still a hit.
- Advantage
  - New product positioning – portable beverage that can be enjoyed at any time.



## Case Study: Pixar

- Makers of Toy Story, Monsters Inc, Finding Nemo, The Incredibles, Cars, Up
- “ we are supposed to take risks. So, we don’t think of risk management as trying to minimize risk. That’s actually the way to prevent creativity. Rather, it is to do risky things and then when they go in some unpredictable path, to be able to respond to it.

Ed Catmull (co-founder and president of Pixar)



## Case Study: The London Whale 2012

- JP Morgan lost USD6.2bn when trader Bruno Iksil took a USD100bn position in credit derivatives to benefit from tightening of spreads.
- What was the risk?
  - European financial crisis concerns caused spreads to widen significantly.
- Lessons Learnt
  - Hedge funds that practiced active risk management profited.
  - Monitor concentration and liquidity risk regularly.
  - Stress test positions to understand what can happen.

**J.P.Morgan**

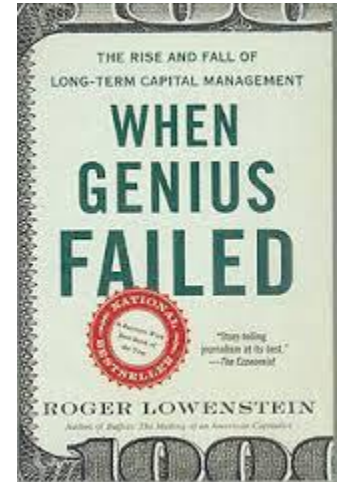
# Case Study: General Motors Recall 2014

- Recall of 3.1 million vehicles costing USD300m.
- What was the risk?
  - Communication and evaluation of internal risks i.e. faulty ignition switches did not take place for 10 years.
- Lessons Learnt
  - Exposing management to the goals and objectives of ERM is not the same as promoting and embedding risk awareness.
  - Do not mistake process for execution.
  - Risk management must be at the forefront of everybody's thinking.



# Case Study: Long Term Capital Management (LTCM) 1998

- Founded by John Meriwether, the Board included Myron Scholes and Robert Merton who shared the 1997 Nobel Memorial Prize.
- In 1998 LTCM lost USD4.6bn in 4 months.
- What was the risk?
  - The Asian Financial Crisis and Russian default caused divergence in markets – resulting in severe losses for LTCM.
- Lessons Learnt
  - Excessive leverage heightens risk (leverage went from 25:1 to 250:1).
  - Models are simplifications of reality and underestimate the likelihood of large adverse moves.
  - Only role playing can provide insight into execution readiness if severe moves happen.



## A Risk Manager's Credo: Winter is Coming



**THANK YOU**