

social recognition. But I believe there are some clear dangers for our profession and for society more widely in the new attitude toward risk—dangers that to date we as a profession have not only failed to recognize but have to some degree encouraged.

I'm going to do this from my own narrow experience in the field of advising U.K. defined benefit pension plans. But as recent elections have perhaps reminded us, there are some interesting similarities in experiences on both sides of the Atlantic. So I hope some points raised here will resonate with actuaries across the globe.

Today, society uses the term "risk" almost exclusively to mean a downside risk. An interesting illustration of this phenomenon is that the latest ISO 9001 quality standard regulations require organizations to provide evidence of their management of both risks and opportunities-the ultimate bureaucratic pronouncement that "thou shalt not see risk as a good thing"-so you need a different name for "good" risk.

This is not just a change in the way we use words but a symptom of a much wider shift in our attitude about the world and our ability to change it for the better. And the conclusion of this type of thinking is that if risk is always bad, the rational response must be to record

time, to sit on boards and act as permanent risk management consultants for the chief executive. ... Firms began to set in motion a huge range of initiatives under the banner of risk management. By the end of the decade, corporations had institutionalised elaborate frameworks for managing risk, under the heading of "enterprise-wide risk management."(1)

Many organizations now seem to spend more time managing their risk registers than managing their business. And these habits are infectious. The increasing incidence of the chief risk officer and enterprise risk management clearly indicates how organizations seek to control risk at every level in their business. The manager of one

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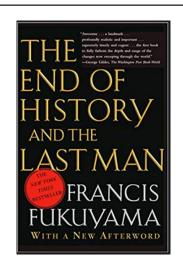


# Popular Understanding of "Risk"

#### Originally neutral word – good and bad risks

Today: risk almost always negative – to be reduced/eliminated

Late 80s / mid 90s:









### Definitions of Risk

- Technical understanding: probability of loss or harm
- Popular understanding: possibility of loss or harm

Probability: Measurable Manageable

Rational Human agency

Possibility: Conceptual Always there

Irrational Fatalistic



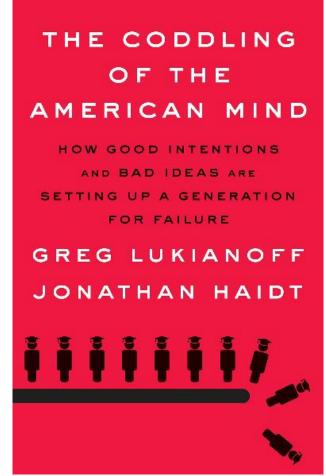
## Possibilistic Thinking

- Fearful view of the world
- Underestimates our ability to act on the world and change it for the better
- "What if" thinking
- Environmentalism
- A world too complex to understand
- The Precautionary Principle
- Worst case scenario planning



### Wider Social Effects







## Effect on Business and the Economy

- R&D reduced and short termist
- Long term investment reduced
- Corporate Social Responsibility policies
- Political and professional elites: most risk averse in history
- For a fearful elite:
  - Stability privileged over everything else
  - Contracting out decision to experts nothing disputed
- Decisions about risk taken away from people and businesses
- Low aspirations, a distrust of economic growth, atrophy



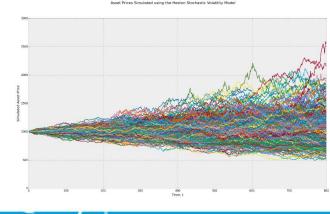
### What does this mean for actuaries?

- Originally deterministic application of probabilities and economics
- Multiple variations stochastic models value at risk
- Complex models

Deterministic to stochastic a similar shift as probabilistic to

possibilistic





## UK pensions landscape

- Historical waves:
  - 1960s-1990s: good and improving defined benefit schemes
  - 1990s-2000s: schemes close to new members
  - 2000s-2010s: schemes close to accrual, move to buy-in / buy-out
- Long term funding assessed every 3 years
- Disclosure in employer accounts assessed on corporate bond return
- Diversified portfolios significant allocation to growth assets

Risks: assets inadequate on long term funding basis – more cash, volatile impact on balance sheet

### Effect on Actuarial Advice

- Trustees and sponsors gravitate to worst case thinking
- Actuaries provide more "what if modelling": modelling assets, liabilities and value at risk

Projecting assets: gilts + discount rates

No room for actuarial judgement

Actuarial model for liabilities drives asset allocation (wrong way round!)

Understanding the model – what's the sequence of events behind result 3,761?

Does the range of results fall outside past experience?



### Where Has This Left Us?

Efficient collective pension provision

Pool of assets for productive investment

Focus (overfocus?) on risk

Risk reinterpreted as always negative Politicians and Media:

- Lack of understanding

- Intolerance to any loss

Pensions Regulator:

- Reputational risks
  - Duty to protect PPF

Inefficient individual provision

Inability of pensions industry to provide pensions







## Other effects on the actuarial profession

- Compliance-run consulting
  - Reduced scope for actuarial judgement
  - House views
  - This is what the Regulator expects
- Everyone is a risk manager
  - What distinguishes actuaries?
- Group-think



### What is to be done?

- Adhere to the rational
  - Discipline in the use of "risk" risk of what?
  - Measurable probability (≠ amorphous risk)
  - Know our boundaries
- Hold on to professional judgement
  - Mechanistic models need to simplify but then need a lot of analysis and critique
  - Accept that we need to disagree innovation and progress need contestation, experimentation and failure
- Practice our profession in the wider public world point is to solve real human problems

