

The Actuarial Conundrum - Will Actuaries still be on Demand in 2120?

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About the speaker

- **Xavier Gomez** – *Founding partner, Mandelbrot Actuaries & Statisticians*

Master in Actuarial Science and BSc in Mathematics and Statistics, he is currently a member of the Board of Directors of the Catalan Association of Actuaries (CAC). He also contributes to the AAE's Task Force Role of Actuaries.



- **Mandelbrot Actuaries & Statisticians** is an independent consulting firm in actuarial and statistical science, specialised in insurance strategy, risk management, and training in accountancy, finance and insurance. We are, first and foremost, focused on preserving our customers' interests to assure their financial success in the long run.

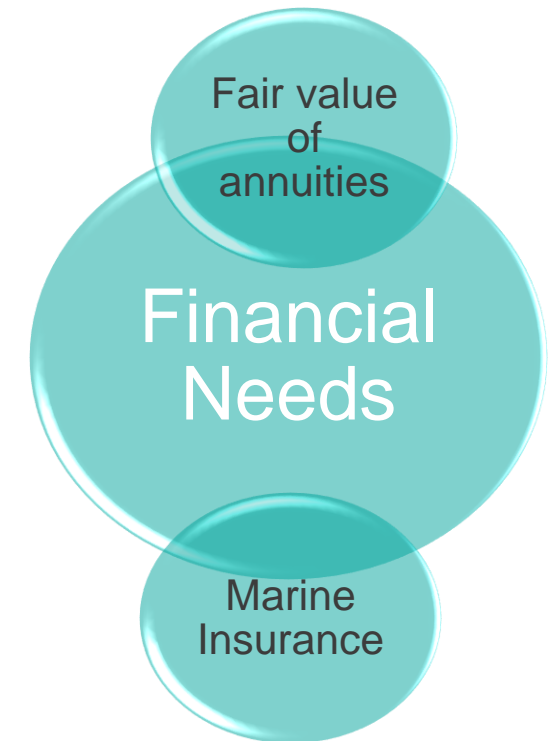
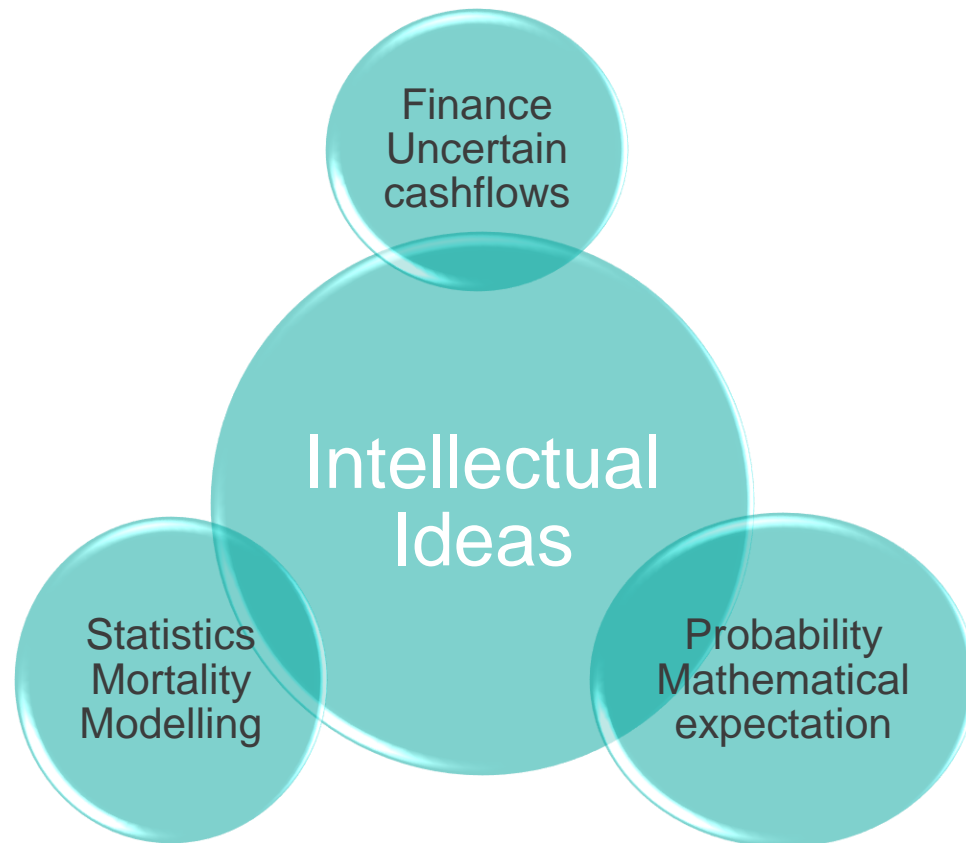


The beginning – the forerunners

Johan de Witt (1625 – 1672)

John Graunt (XVIIth Century)

James Dodson (1705 - 1757)



In fact, what's an actuary?



- Highly **qualified** professionals
- Analyze the **financial** impact of **risk**
- Apply their **mathematical expertise**
- Rigorous **standards of practice**

In fact, what's an actuary?



- Problem solvers
- Strategic thinkers
- Understanding of **financial systems**
- Highly valued **mathematical skills**
- **Expertise**

The triangle that defines the profession

- Standards of practice

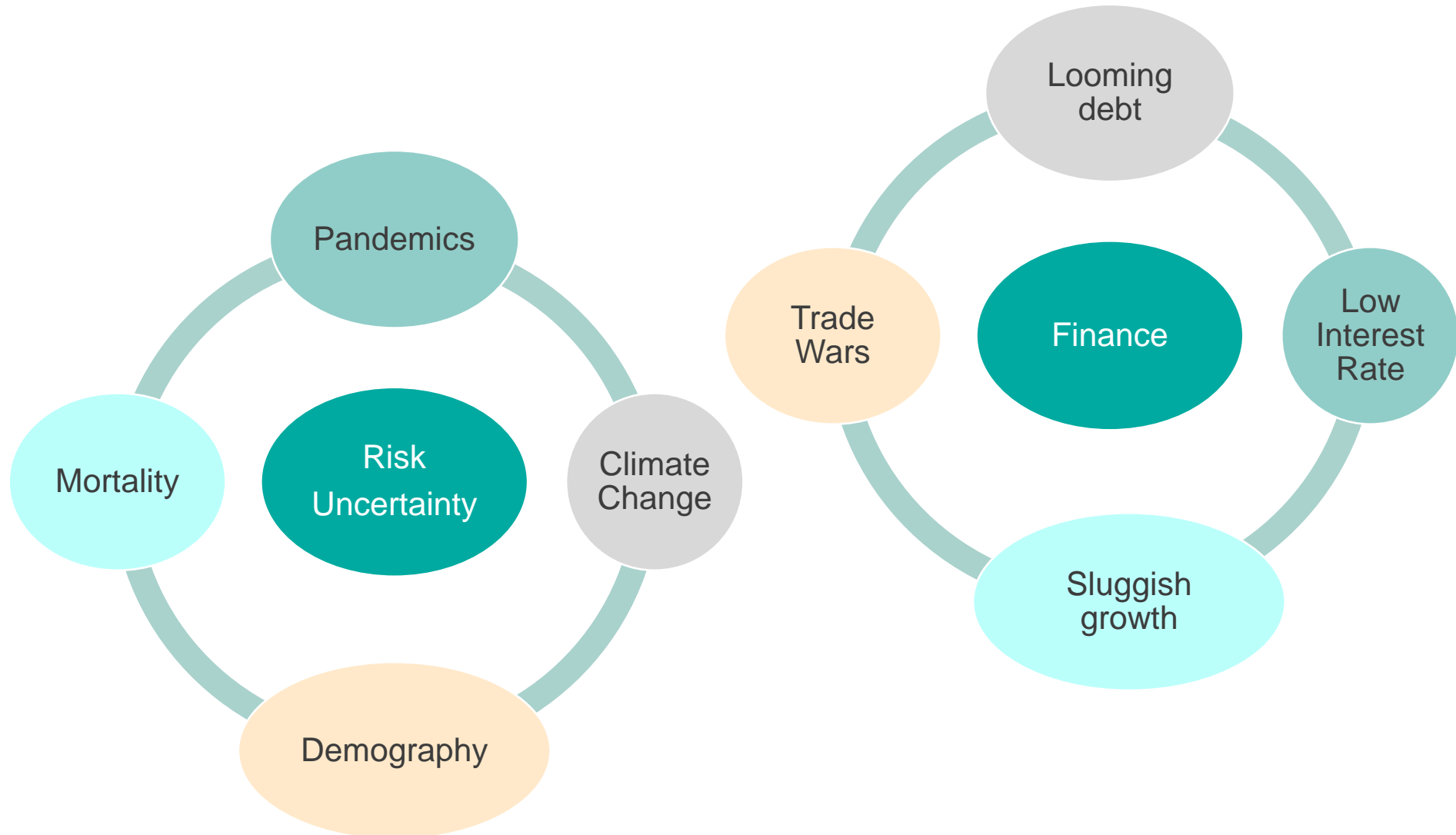


- Mathematical skills
- Expertise

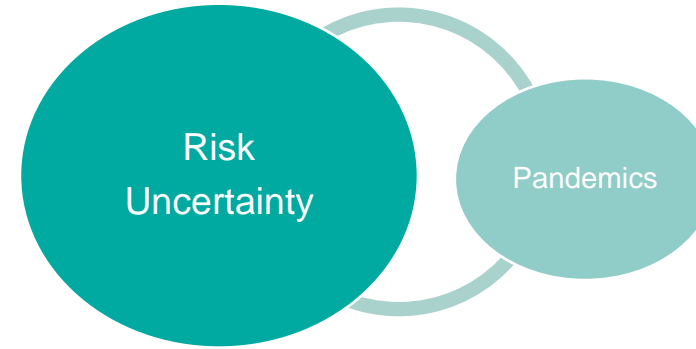
- Problem solvers
- Strategic thinking

‘Actuaries make financial sense of the future’
(Institute of Actuaries, 1998)

Are there problems around to solve in 2020?



Are actuaries helping to solve problems?



a **community** (...) and forum for actuaries (and others) to help them in (...) responding to the COVID-19 crisis



supporting and enhancing our profession's **commitment to societal and public interest**

‘We face a **global crisis** of epic proportions’
‘We must do what we can **quickly, meaningfully and thoughtfully**’

Are actuaries helping to solve problems?



DEATHS, EXCESS DEATHS AND STATISTICS

on the (un)reliability of daily COVID-19 death figures in England

CARE HOMES – FORGOTTEN BY US, NOT BY COVID

on the high COVID-19 mortality rate in care homes

‘We face a **global crisis** of epic proportions’

‘We must do what we can **quickly, meaningfully and thoughtfully**’

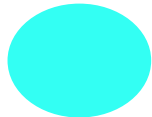
Are actuaries helping to solve problems?



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‘a measure of **long-term** changes across an array of observed weather extremes and sea level in Canada and the USA’



‘an **educational tool** to help inform **actuaries**, **public policymakers**, and the **general public**’

Actuaries are **experienced** in

- the assessment and mitigation of **financial** consequences of **risks**
- the summarization and presentation of **complex data**

Are actuaries helping to solve problems?



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Canadian
Institute of
Actuaries

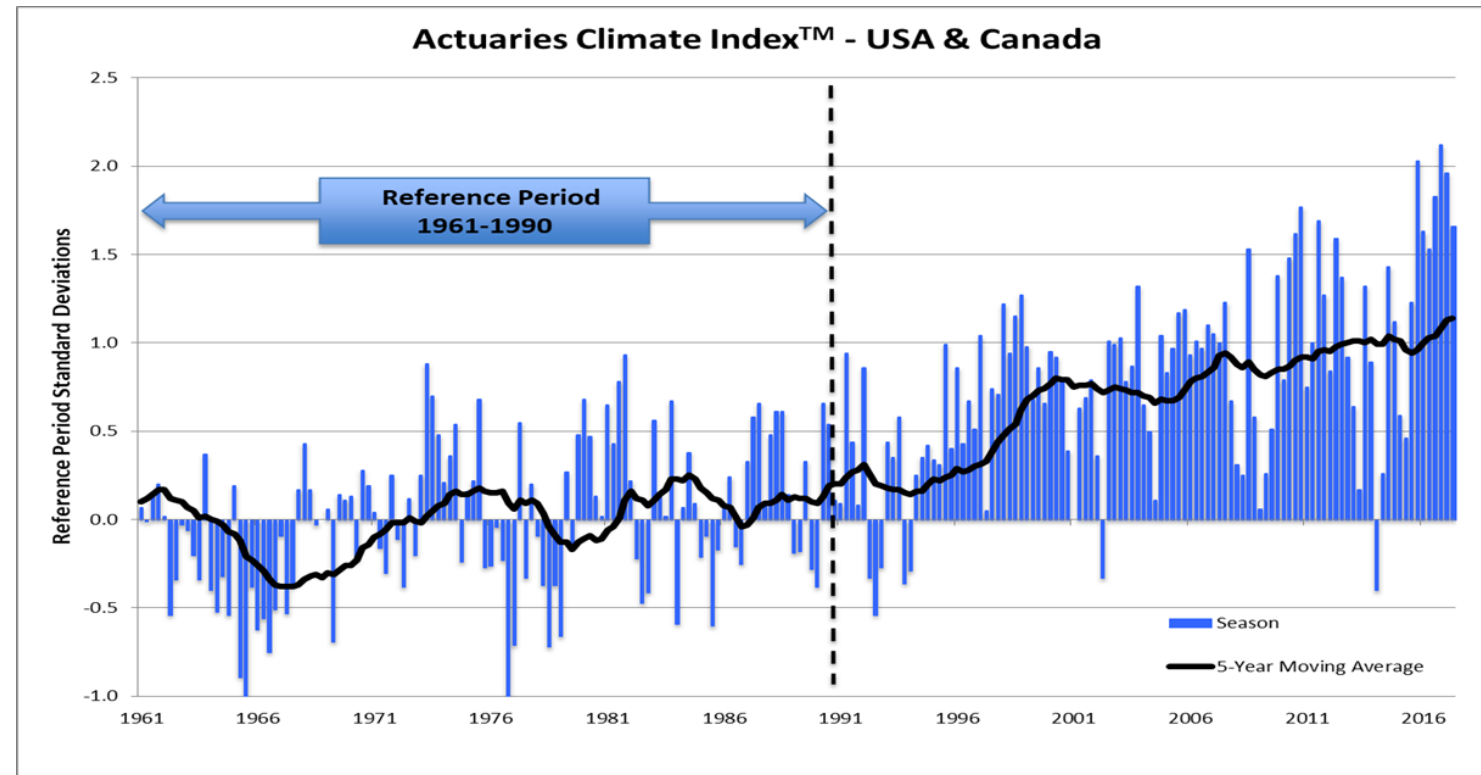


Institut
canadien
des actuaires

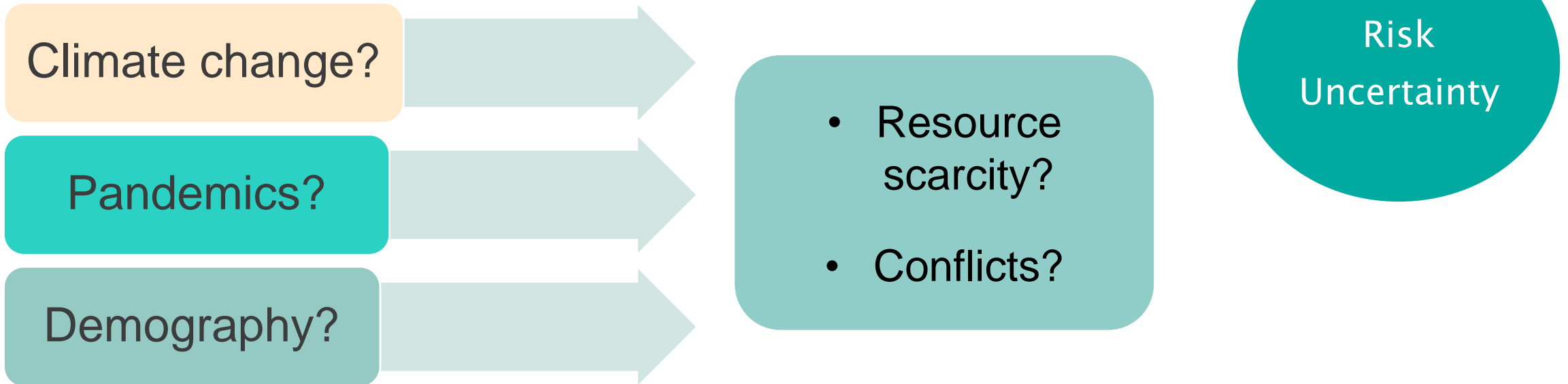


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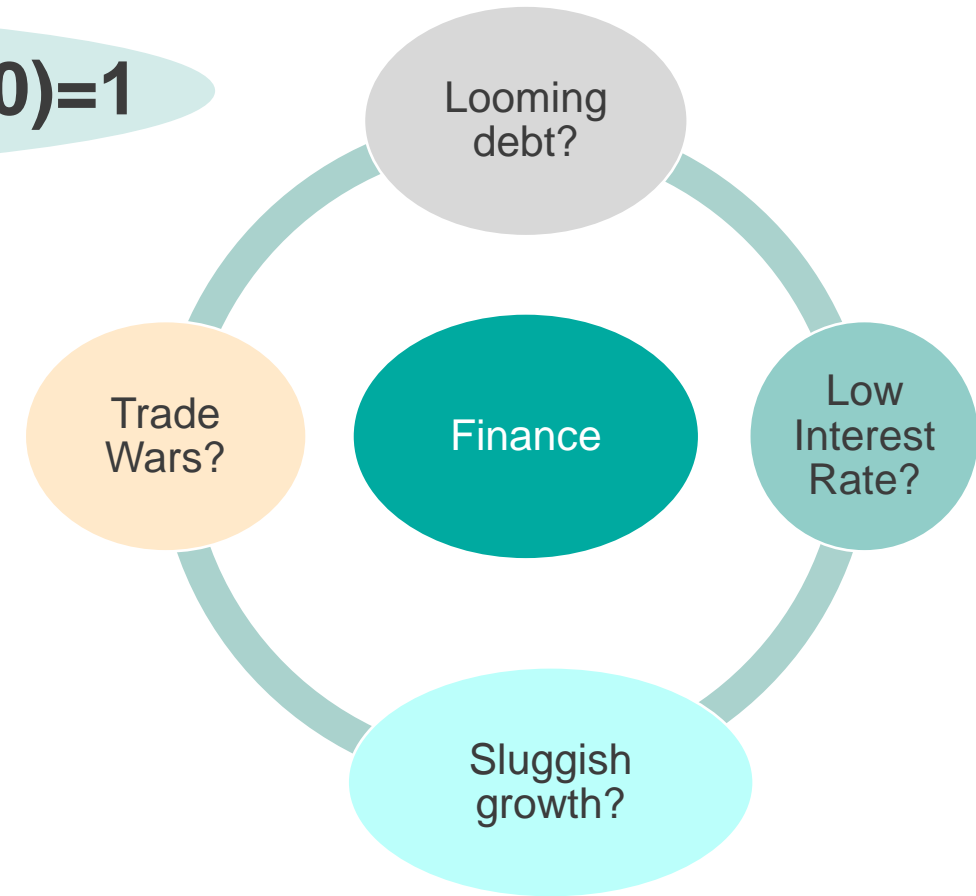
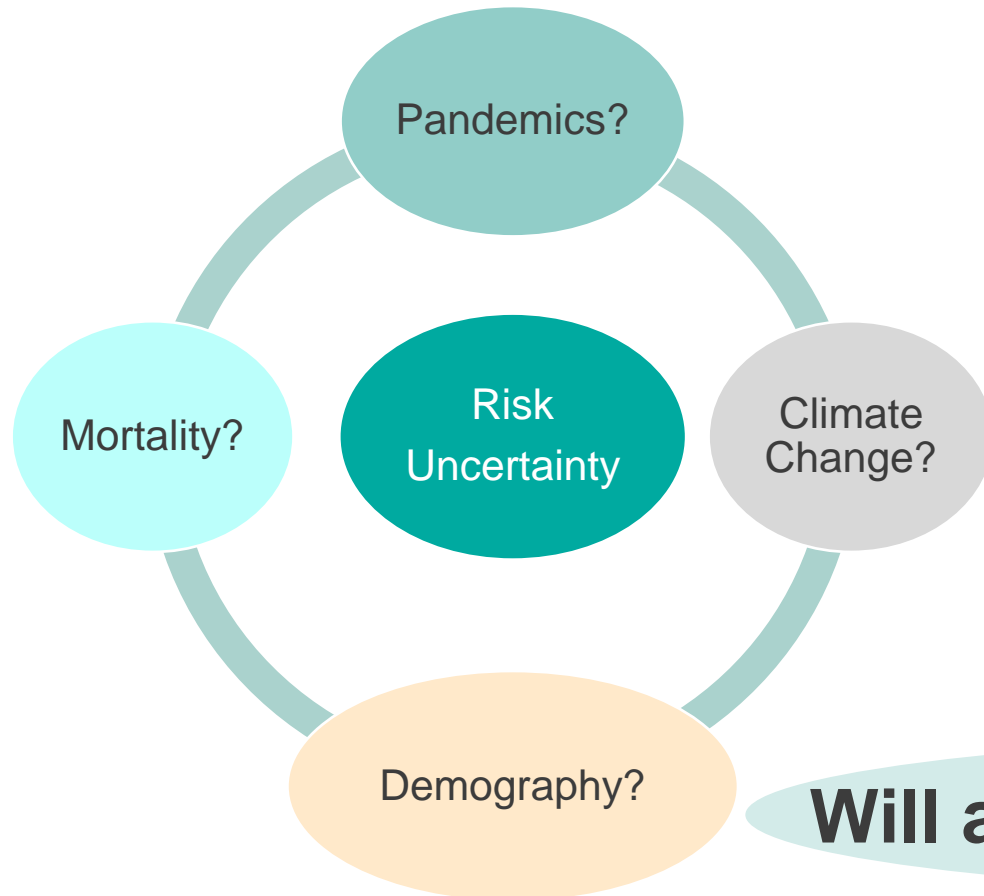
The first actuarial conundrum for 2120



Is the survival probability of mankind in 2120 < 1 ?

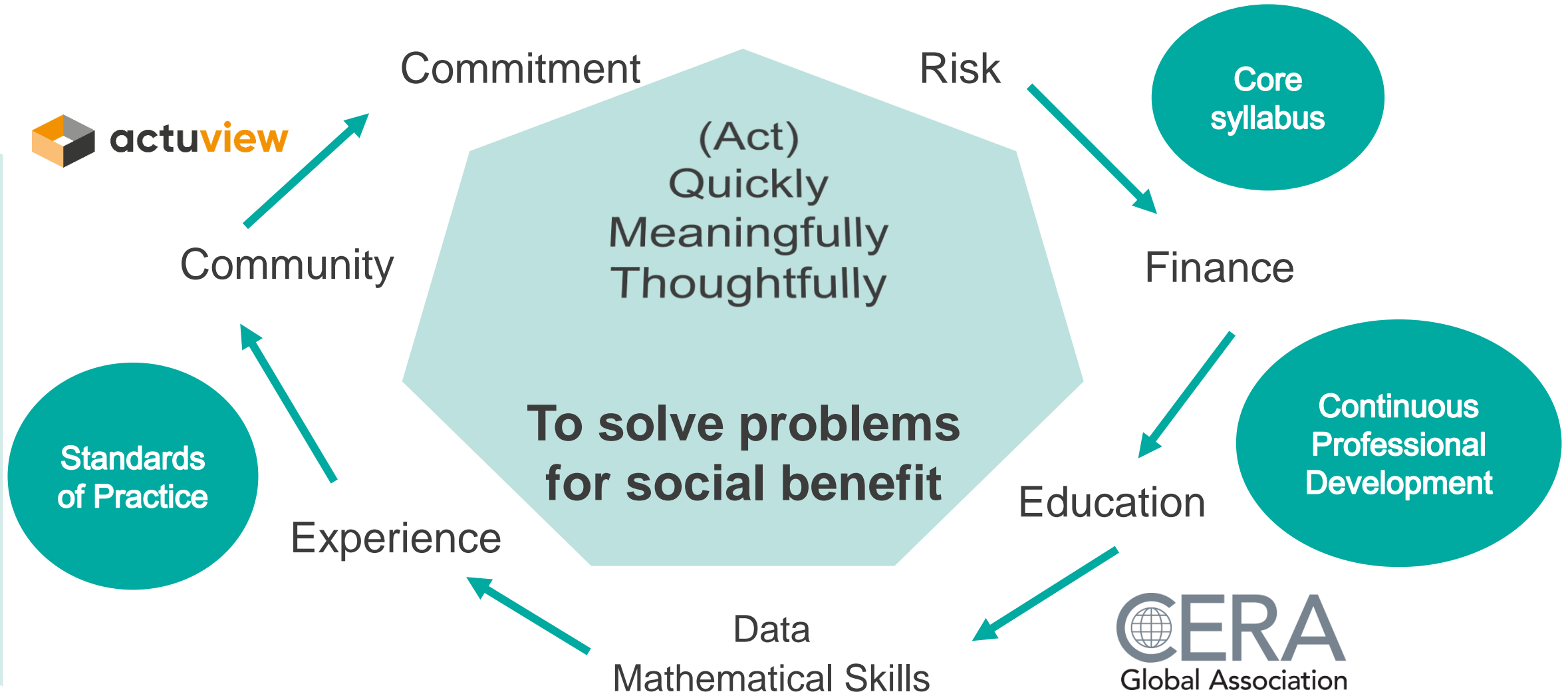
The second actuarial conundrum for 2120

If $P(\text{mankind survival in 2120})=1$



Will actuaries still be on demand in 2120?

The heptagonal answer to the conundrum



**Thank you very much for
your attention!**

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