Institute and Faculty of Actuaries

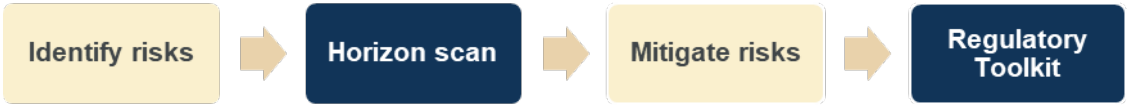
Regulatory Board Horizon Scan

Overview

The IFoA's regulatory horizon scan highlights broad topics within the scope of actuarial work where there is potentially significant risk to the public interest.

The scan is maintained and updated by the IFoA Regulatory Policy team through a series of internal discussions and desk research, regular bilateral meetings with other regulators, and expert inputs from the IFoA's Practice Boards. It is reviewed and owned by the IFoA Regulatory Board. At its regular meetings, the Board hosts a series of discussions with topic experts and assesses the risks associated with these broad topics. This allows the Board to consider what regulatory actions they may take in mitigation. Actions available to the Board are outlined in the Regulatory Toolkit.

In accordance with its Royal Charter, the IFoA has responsibility for regulating the actuarial profession in the public interest. Under the terms of the IFoA's Governance Manual, Council delegates that responsibility to the Regulatory Board. The IFoA's Regulatory Policy Statement indicates the Board's commitment to a **risk-based approach to regulation**:



Current horizon scan items

HS01 - Actuaries fail to appropriately promote and allow for climate change, biodiversity, and sustainability risks

HS03 - Risk associated with multiple significant pensions developments over a short period of time

HS07 - Advances in AI and Data Science techniques brings new risks and enhances existing risks in actuarial work

HS08 - Actuarial involvement does not sufficiently promote and ensure fair consumer outcomes and financial inclusion

HS09 - Actuaries insufficiently challenge established practices and theory, in the face of significant economic, environmental, and societal changes

HS01 Actuaries fail to appropriately promote and allow for climate change, biodiversity, and sustainability risks

Cross practice
Links to HS08, HS09

Description

- Actuaries may not sufficiently allow for climate-related risks in the work that they carry out, including potential catastrophe outcomes.
- Actuaries may not sufficiently promote risks to climate, sustainability and biodiversity within their organisations, and guard against greenwashing.
- Actuaries do not appropriately account for the risks to human health as a result of increasing environmental and biodiversity adverse outcomes.

Examples

- Stress testing underestimates true risks
- Disclosures exaggerate extent of true activity
- Insurability comes under threat for some customers
- Insufficient investment strategy changes to drive shift from carbon to renewables

Board activity

- Climate related risk report: an information gathering report on actuarial involvement (July 2021)
- Risk Alert (April 2022)
- Ethical and professional guidance on climate change (January 2024)
- Risk Alert (June 2024)
- Key focus session 16 July 2024
- Launched climate and sustainability thematic review (April 2025)

Other activity

- Climate Risk and Sustainability Course
- Climate change curated library, Sustainability Board
- IFoA Climate change statement
- IFoA Biodiversity and nature-related risks policy statement
- IFoA Sustainability hub
- Thought leadership - Climate Emergency – tipping the odds in our favour (November 2022), Emperor's New Climate Scenarios (July 2023), Climate Scorpion – the sting is in the tail (March 2024)
- Changes to Technical Actuarial Standards (TAS) 100, (FRC March 2023)
- Consultation on update to SS3/19, (PRA April 2025)

Possible next steps

Given extensive actions by IFoA and other regulatory bodies, next steps may be better focused on assessing actuarial activity and how this has progressed in recent years.

Thematic review being carried out in 2025.

Most recent, or next scheduled, Board agenda item	July 2024

HS03 Risk associated with multiple significant pensions developments over a short period of time

Pensions
Links to HS08, HS09

Description

- A number of significant developments taking place in relation to pensions may be challenging for actuaries acting as advisors to trustees and sponsors during this period of significant change, with potential for material impacts for scheme members, sponsors, trustees, and advisors (including actuaries).

Examples

- New DB funding code
- Fast-track funding
- CDC and Superfunds
- Great Risk transfer
- Virgin Media case

Board activity

- Corporate pensions: actuarial advice given to pension scheme sponsors (April 2023)
- Actuarial Profession Standard P1 update (April 2023)
- Collective Defined Contribution Scheme Actuary Practising Certificate introduced (March 2023)
- Pension scheme design thematic review launch (September 2024)
- Key focus session, 14 May 2024

Other activity

- New DB funding code of practice from The Pensions Regulatory (April 2024)
- Technical Actuarial Standard 300 update (December 2023)
- New Technical Actuarial Standard 310 : Collective Money Purchase Pensions introduced (May 2024)

Possible next steps

Refreshed interaction with the IFoA Pensions Board may be a sensible next step to assess where highest risks sit. Most recent engagement with the Pensions Board was at their June 2024 meeting.

As new funding requirements take shape, in a constantly changing pensions environment, consider a further thematic review looking at how actuaries apply this (planned for 2026).

Most recent, or next scheduled, Board agenda item	May 2024

HS07 Advances in AI and Data Science techniques brings new risks and enhances existing risks in actuarial work

Cross practice
Links to HS08, HS09

Description

- There may be inappropriate bias or discrimination in the underlying data, or models, increasing the risk of unfair outcomes.
- Complex data and modelling techniques may inadvertently breach existing regulatory requirements, particularly in relation to protected characteristics and data privacy.
- The use of third-party large language tools or models may lead to increased risks in relation to veracity of output, privacy, and copyright.
- Explanations and validation of complex data and modelling techniques are likely to be more challenging than for more traditional actuarial models.

Examples

- Large language models
- Use of third-party data
- Unfair pricing outcomes
- Inadequate challenge and validation
- Indirect discrimination against protected characteristics
- Lack of inclusive insurance
- Enhanced cyber risks through malicious AI

Board activity

- Ethical and professional guidance on Data Science (February 2021), currently being reviewed
- A Guide for Ethical Data Science, A collaboration between the Royal Statistical Society (RSS) and the Institute and Faculty of Actuaries (IFoA) (2018)
- General insurance: involvement of actuaries in pricing for UK home and motor insurance (June 2021) highlighted the risks around data science.
- Risk Alert (September 2023)
- Actuaries using data science and artificial intelligence techniques (February 2024)
- Key focus session, 25 July 2023

Other activity

- CISI Certificate in Ethical AI ~~IFoA Certificate in Data Science~~
- Wide consideration of issues by IFoA Data Science Community and range of other working parties.
- Technical Actuarial Guidance: Models includes material relevant to AI and machine learning techniques
- ~~Technical Actuarial Standard 100 sets standards for models used in technical actuarial work~~
- Research on the use of Artificial Intelligence and Machine Learning in UK actuarial work (October 2023) by the Financial Reporting Council and Government Actuary's Department
- Various global initiatives (including EU and USA)

Possible next steps

There is significant UK and international government and regulator focus, as summarised in the IFoA thematic review report *Actuaries using data science and artificial intelligence techniques* (February 2024).

Most recent, or next scheduled, Board agenda item	~~Related item HS02 covered July 2023~~February 2024

HS08 Actuarial involvement does not sufficiently promote and ensure fair consumer outcomes and financial inclusion

Cross Practice
Links to HS01, HS03, HS07

Description

- IFoA research and publications, such as the Great Risk Transfer, Inclusive Insurance, and the Poverty Premium, have highlighted where there are increasing questions around fair consumer outcomes, including for more vulnerable consumers.
- Wider industry work looking at gaps in protection and savings (including pensions) suggests that financial services is not delivering well for society and consumers as a whole.
- In the UK, the FCA's Consumer Duty aims to address certain aspects and the regulator will track how organisations are implementing its requirements

Examples

- DB to DC, and new CDC / Superfund options
- GI pricing
- Lifetime mortgages
- Funeral plans
- Implementation of Consumer Duty
- Benefits of AI – poverty premium
- Pensions Gap
- Social Care

Board activity

- RB Chair worked with IFoA Policy team on the published Great Risk Transfer document in 2021
- Thematic reviews on GI Pricing, Funeral Plan Trusts, and Equity Release mortgages.
- Watching brief on FCA Consumer Duty following deep dive at Feb 2023 Board
- Key focus session, 21 February 2023

Other activity

- Significant amount of activity on the part of the regulators on DB to DC transfers, including publication of further FCA guidance and joint guidance between the FCA and TPR
- Funeral plans moved under FCA regulation during 2022
- Introduction of FCA Consumer Duty in 2023 likely to have a significant impact in this area
- FRC TAS 200 ~~consultation launched, with focus on consistency with FCA Consumer Duty~~updated to include focus on customer outcomes

Possible next steps

Professionalism material being developed. As the Consumer Duty beds in it would make sense to discuss with FCA at regular IFoA catch-up meetings.

A thematic review in this area, focused on actuarial input across a range of domains is planned for 2025/26.~~Consider a thematic review in this area, possibly focused on actuarial input across a range of domains (planned for 2025/26).~~

Most recent, or next scheduled, Board agenda item	Related item HS04 covered February 2023

HS09 Actuaries insufficiently challenge established practices and theory, in the face of significant economic, environmental, and societal changes

Cross practice
Links to HS01, HS03, HS07, HS08

Description

- Actuarial training, in common with other financial disciplines, uses established financial economic theory in relation to the pricing and valuation of market assets.
- This may lead to valuations driven by short-term benchmarking whereas long-term value may come under increasing pressure from the impacts of climate change, significant technological advances, or geopolitical upheaval.
- This could be extended to other aspects of the actuarial skillset, where established thinking may need constructive challenge.

Examples

- Long-term asset values due to climate change
- Societal benefits of AI
- Hedging strategies
- Future pandemics
- Appropriate levels of stress testing

Board activity

- Retirement factors thematic review
- GI pricing thematic review
- Data Science and AI thematic review
- Inflation Risk Alert (August 2022)
- LDI key focus session, July 2023
- Key focus session, February 2025
- Key focus session concentrating on changing mortality trends, May 2025

Other activity

- The Pensions Regulator, and other market regulators taking steps to strengthen collateral arrangements and reporting of Liability Driven Investments.
- Work and Pensions Select Committee report on LDIs (June 2023)
- Climate Scorpion (March 2024) and Planetary Solvency (January 2025) reports
- ~~Climate Scorpion report~~Why actuaries need a new economics, IFoA webinar, April 2025

Possible next steps

Investigate what activity there is within IFoA working parties related to this theme.

Consider potential thematic review, thinking about what the particular scope might be.

Liaise with IFoA education colleagues on any planned curriculum developments.

Most recent, or next scheduled, Board agenda item	February and May 2025

Past horizon scan items

Code	Summary	Rationale for removal	Date retired
HS02	Complex models insufficiently validated and understood, or poorly communicated	Adapted and restated as HS03	24 September 2024
HS05	Products which combine higher risk of adverse outcomes with significant actuarial involvement	This has been developed to focus on consumer fairness, in HS08	24 September 2024
HS05	Actuaries not appropriately allowing for significant changes in economic environment	This risk has been redefined in HS09	24 September 2024
HS06	Risk of inaccurate pandemic modelling and future path of longevity as a result of the COVID-19 pandemic	Specific COVID-19 risk has been downgraded. The general risk regarding future pandemics is subsumed in HS01	24 September 2024