

JFAR and the Hotspots

JOINT FORUM ON ACTUARIAL REGULATION

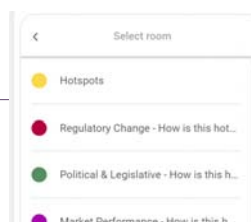
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Agenda and Slido

- ▶ Introduction to the JFAR:
 - ▶ Members; and
 - ▶ Aim.
- ▶ Risk Perspective and hotspots
- ▶ Regulatory Change hotspot
- ▶ Your choice of hotspot
- ▶ Panel Discussion

How to join your event

- 1 Open a browser on any laptop, tablet or smartphone
- 2 Go to [slido.com](https://www.slido.com)
- 3 Enter the event code **#Life2018JFAR**



▶ Pose your question, or answer the polls as the options come up

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Joint Forum on Actuarial Regulation



The JFAR is a unique collaboration between regulators to co-ordinate, within the context of its members' objectives, the identification and analysis of public interest risks to which actuarial work is relevant.

The Pensions
Regulator



Institute
and Faculty
of Actuaries



BANK OF ENGLAND
PRUDENTIAL REGULATION
AUTHORITY

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Joint Forum on Actuarial Regulation

- ▶ JFAR is not another regulator.
- ▶ It is a forum for the five regulators to meet and collaborate:
 - ▶ Share expertise;
 - ▶ Identify current and emerging issues;
 - ▶ Reduce risk of duplicating or conflicting actions;
 - ▶ Reduce risk of regulatory gaps or overlaps;
 - ▶ Increase knowledge through engagement with experts to brief it on topical matters;
- ▶ Identify areas where JFAR can help actuaries and/or users.

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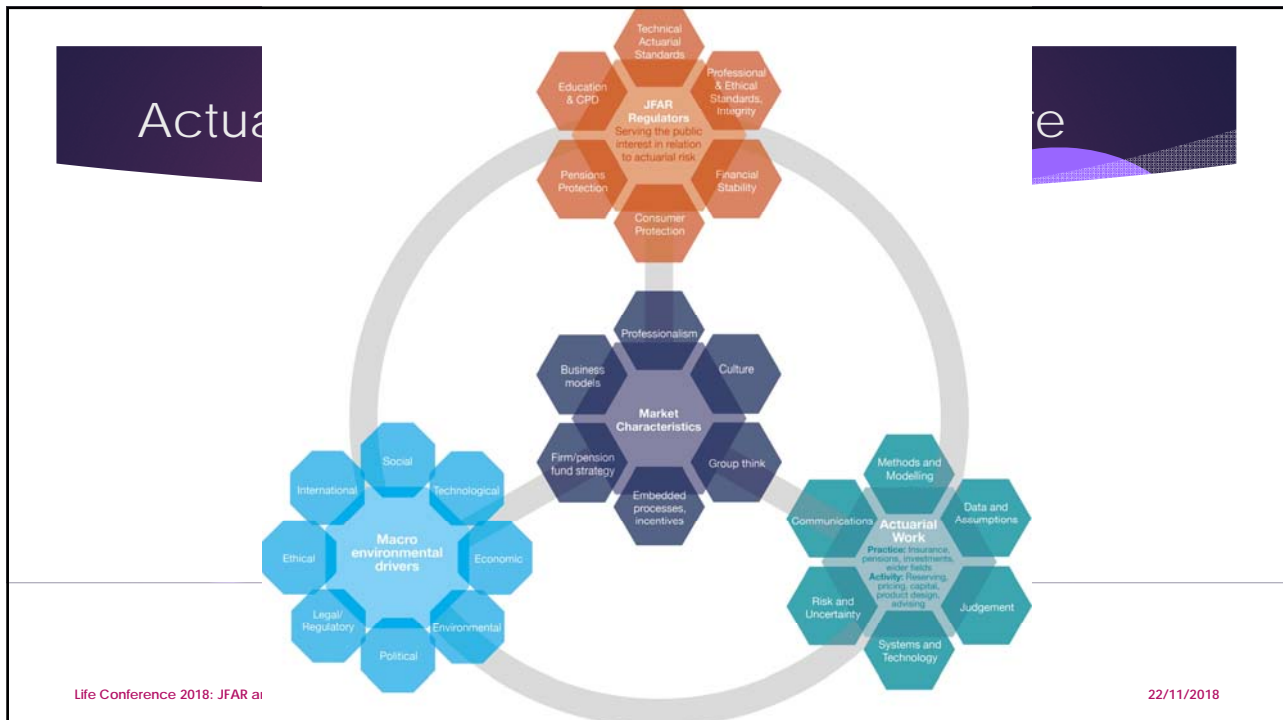
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Risk Perspective: 2017 Update

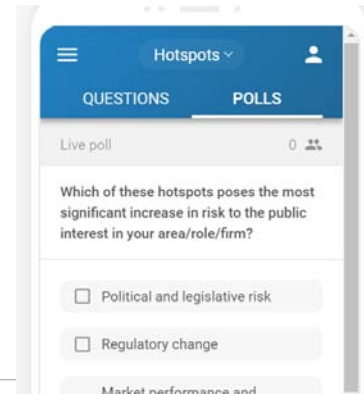


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Slido: Poll and Discussion

- ▶ Political and legislative risk
- ▶ Regulatory change
- ▶ Market performance and uncertainty
- ▶ Climate-related risk
- ▶ Financial security
- ▶ DB pension scheme management
- ▶ Technological change: Automation and digitisation, Big Data, AI and cyber risk
- ▶ Terrorism and Cyber crime
- ▶ Mortality
- ▶ Which of these hotspots poses the most significant increase in risk to the public interest in your area/role/firm?
- ▶ Do you think that the JFAR has missed any other risks from the current hotspots?



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Regulatory Change



...actuarial work is adversely impacted by the level of regulatory change resulting in poor outcomes...

▶ Current Influences

- ▶ Recent changes may not yet be fully embedded:
 - ▶ Revised TAS, Actuarial Professional Standards;
 - ▶ Solvency II, Pension Freedoms, Senior Insurance Managers Regime.

▶ Key Drivers

- ▶ Primary: legal/regulatory
- ▶ Secondary: political and international factors



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Regulatory Change and Actuaries



- ▶ Risk to high quality actuarial work:
 - ▶ Demands on actuarial resource (e.g. embedding Solvency II, IFRS17 preparation);
 - ▶ Overreliance on professionalism, reluctance or inability to speak up in difficult circumstances;
 - ▶ Commercial pressures, e.g. focus on short term profit generation;
 - ▶ Conflicts of interest;
 - ▶ Silo thinking or group think;
 - ▶ Mistrust of experts may lead actuaries to be considered anti-competitive, too cautious or a barrier to innovation.

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Political and legislative risk



...actuaries do not sufficiently consider or plan for the potential for political or legislative change and as such over or under react to political uncertainty.

- ▶ Current Influences
 - ▶ Brexit: direct and indirect e.g. economic impact, regulatory uncertainty, legal contract validity.
 - ▶ UK domestic policy e.g. monetary policy, pension legislation, health spending, data privacy.
 - ▶ International e.g. societal polarisation, income inequality, inward orientation of countries.
- ▶ Key drivers
 - ▶ Primary: political
 - ▶ Secondary: economic, environmental, legal and regulatory, ethical and international factors



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Political and legislative risk and Actuaries



- ▶ Political decisions could change:
 - ▶ the roles and responsibilities of actuaries;
 - ▶ the data and methodologies used;
 - ▶ the models and assumptions.
- ▶ May be a lack of relevant history of similar situations and impacts can be binary.
- ▶ May have limited knowledge of government thinking or be unaware of the groups influencing it.
- ▶ Geopolitical: UK actuaries may be unaware of local political considerations.

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Market Performance and Uncertainty



...actuaries fail to make sound judgements and risk based decisions given the uncertainty in the current financial market conditions...

- ▶ Current Influences
 - ▶ Brexit and the continuation of the low interest rate environment since GFC;
 - ▶ new and volatile economic and financial market conditions e.g. impact of Brexit on inflation, real interest rates, business investment and currency markets;
 - ▶ Challenges for actuaries managing and communicating uncertainty.
- ▶ Key drivers
 - ▶ Primary: economic
 - ▶ Secondary: political, environmental and international factors



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Market Performance and Uncertainty and Actuaries



- ▶ Risk to high quality actuarial work:
 - ▶ Market Conditions
 - ▶ Monetary policy post GFC;
 - ▶ Uncertain impact of Brexit;
 - ▶ Persistent low interest rates.
 - ▶ Search for yield
 - ▶ Innovative solutions – ILS, illiquid or complex asset classes
 - ▶ Excess capital in insurance – pricing pressures, consolidation

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Climate-Related Risk



...actuaries may not take into account appropriately, or communicate clearly, the assumed impact of changing climate on decisions of users.

- ▶ Current Influences
 - ▶ Increasing body of evidence;
 - ▶ Governments and users are taking action to manage exposure to the physical, transition and liability risks;
 - ▶ Increasing involvement of actuaries.
- ▶ Key drivers
 - ▶ Primary; Environmental
 - ▶ Secondary: *inter-connections*: economic impact, legal/regulatory and political responses to changes including international situation, ethical investment policies



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Climate-related Risk and Actuaries



- ▶ Risk to high quality actuarial work:
 - ▶ Climate-related risk impacts all areas of actuarial work;
 - ▶ Risk of poor quality actuarial work if actuaries do not fully consider impacts of climate related risk;
 - ▶ Mitigations available to actuaries;
 - ▶ Opportunity for actuaries to advise on solutions.

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Financial Security



...actuaries fail to communicate the impact of changing economic and social priorities on the current and ongoing appropriateness of the assumptions inherent in products...

- ▶ Current Influences
 - ▶ Slow economic growth, ageing populations, benefit freezes, rising income and wealth disparity.
 - ▶ Political and societal changes meaning governments are less willing or able to provide support.
- ▶ Risk that individuals will not have sufficient wealth or income to meet their financial needs.
- ▶ Key drivers
 - ▶ Primary: economic
 - ▶ Secondary: social (e.g. *intergenerational fairness*), international



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Financial Security and Actuaries



- ▶ Selection of assumptions and relevance of historical data:
 - ▶ Changes to the benefits provided by government or employers;
 - ▶ Changes in societal attitudes and policyholder behaviour to individual financial security, or claiming under private policies.
- ▶ Product Design
 - ▶ Using new technology and data to facilitate new features or increase product reach;
 - ▶ Reviewing product design such as charges and tax implications over the long term.
- ▶ A lack of public understanding of financial products, low saving rates and mistrust of banks and insurers may increase the risk to financial security.

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Technological Change

Automation and digitisation, Big Data, AI & Cyber risk



...actuaries may not recognise and take account of technological changes such as Big Data and new modelling techniques, increasing cyber risk or changing business models.

- ▶ Current Influences
 - ▶ Technological advances and developments in AI;
 - ▶ Significant investment in Big Data and Analytics.
 - ▶ Impacts:
 - ▶ disruptions to current business models;
 - ▶ invalidate the current judgements, models and assumptions.
- ▶ Key drivers
 - ▶ Primary: technological
 - ▶ Secondary: social, international nature leads to political and legal/regulatory



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Technological Change and Actuaries



- ▶ Risk to high quality actuarial work:
 - ▶ New data and tools;
 - ▶ Impact on the underlying risk;
 - ▶ Ethical considerations;
 - ▶ Cyber Risk;
 - ▶ Opportunity for new products and new business models.

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Terrorism and Cyber Crime



actuaries may fail to update assumptions or adjust working practices to reflect the changing nature of terrorism and cyber crime risks

- ▶ Current Influences
 - ▶ High-profile terror attacks on major cities in Europe, US and Australia – using irregular, low tech means to target the general population;
 - ▶ High-tech crimes increasing e.g. NHS ransomware attack;
 - ▶ Alleged political espionage;
 - ▶ Use of cyber crime, scams and frauds by organised criminal gangs.
- ▶ Key drivers
 - ▶ Primary: political and economic
 - ▶ Secondary: international, technological



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Terrorism and Cyber Crime and Actuaries



- ▶ Data limitations and uncertainty
 - ▶ Setting assumptions for pricing, measuring accumulations and reserving is challenging.
 - ▶ Actuaries may need to work with others to increase understanding of underlying risk drivers and develop ways to measure and respond to them.
- ▶ Terrorism
 - ▶ Coverage traditionally designed to cover property damage but significant losses have occurred in recent attacks from business interruption. Coverage may be insufficient for small business and individual travel policies.
- ▶ Cyber Crime
 - ▶ Result of economic and technological risk drivers. It often exploits people's culture and behaviour to breach computer security.
 - ▶ Insurers and pension schemes hold large amounts of personal and financial data that is attractive to criminals. Scheme members and policyholders are also vulnerable to fraud and scam attacks.

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Pension Scheme Management



...actuaries provide poor quality advice such that trustees are unable to respond effectively to the challenges facing DB schemes resulting in poor outcomes for members...

- ▶ Current Influences
 - ▶ Economic conditions, ongoing low interest rates, Brexit uncertainty;
 - ▶ Transfer values are extremely high making transfers from DB to DC schemes seem highly attractive;
 - ▶ White Paper on the security and sustainability of the sector.
- ▶ Key drivers
 - ▶ Primary: economic and political
 - ▶ Secondary: legal/regulatory, ethical



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Pension Scheme Management and Actuaries

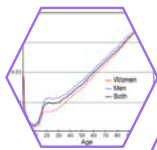


- ▶ Scheme Funding
 - ▶ Commercial pressure on assumptions to reduce contributions or for complex investments in search for yield.
 - ▶ Economic uncertainty makes it more difficult to assess employer covenant.
- ▶ Scheme Consolidation
 - ▶ Uncertainty around how employer covenant will be replaced by commercial investor backing. Risk that decisions are made to consolidate based on assumptions that prove to be ill founded.
- ▶ DB to DC transfers
 - ▶ Pension Freedoms and low interest rates have led to historically high levels of DB to DC transfers. Actuaries face a challenge to assumptions suitable for the scheme and the transferees e.g. selection risk, funding level, liquidity, volatility of markets.
- ▶ Modelling:
 - ▶ Risk that the data, systems and assumptions used for robo-advice to individuals do not adequately reflect the circumstances of the specific transferee (e.g. attitude to risk, dependents, other financial resources)
 - ▶ Scheme sponsors using modelling systems to test alternative actions or to assess progress of scheme solvency may not fully understand the complexity and inter-relationships of the assumptions.

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Mortality



...failure to pick up, understand and respond to changes in mortality trends in an appropriate and timely manner.

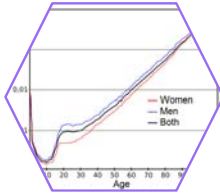
- ▶ Current Influences
 - ▶ CMI updates continue to report a reduction in the rate of mortality improvement in UK mortality.
 - ▶ Slowdown in general population mortality improvements has been greater than that predicted by most projection models.
- ▶ Key drivers
 - ▶ Primary: social
 - ▶ Secondary: political, economic, environmental



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Mortality and Actuaries



- ▶ Slowing pace of UK mortality improvements is also seen in other countries (US, Canada and Ireland). Actuarial judgement to assess how, when and whether to recognise a change in trend.
- ▶ A recent study has shown a link between levels of deprivation and mortality with higher levels of deprivation showing adverse mortality.
- ▶ The level of improvement could continue to decline, and possibly even move to deterioration e.g. due to increasing obesity levels (including in childhood), increasing sleep deprivation (linked to Alzheimer's, heart attack and stroke, potential antibiotic resistance, opioid addiction).
- ▶ In contrast, advances in medical technology (advanced medical procedures, artificial organ transplants, genetics to personalise medicine) and healthtech to support lifestyle choices may reverse recent trends.
- ▶ Climate related risks to mortality are complex e.g. actions to reduce air pollution and methane production, greater volatility in temperatures, impact on food production, emergence of new diseases.
- ▶ May need to develop new tools and analysis if past experience not the best guide for future, utilise emerging research and work with other professions to help users understand reasons for changes in mortality patterns.

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Discussion using Slido

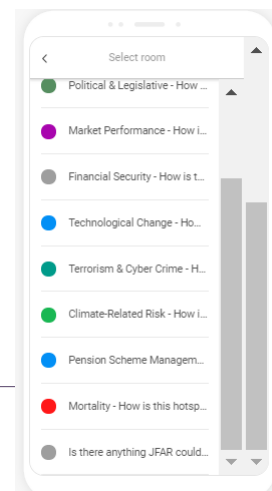
- ▶ We would like your input on the hotspots we have discussed, or on any of the others.

There is a "room" for each hotspot:

- ▶ How is this hotspot impacting your work?

And one further "room"

- ▶ Is there anything JFAR could do to help?



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Thank you

- ▶ www.frc.org.uk/jfar
- ▶ RiskPerspective@frc.org.uk

- ▶ Speakers

- ▶ Ben Kemp, IFoA
- ▶ Andrew Ruddle, FCA
- ▶ Ann Muldoon, FRC

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Appendices

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JFAR Members: Actuarial responsibilities

- ▶ FRC: Promote transparency and integrity in business.
 - ▶ Set Technical Actuarial Standards;
 - ▶ Provide independent investigation and disciplinary hearings in public interest cases;
 - ▶ Oversee the IFoA's regulation of the actuarial profession in the UK.
- ▶ IFoA: Serve the public interest by ensuring that, where there is uncertainty of future outcomes, actuaries are trusted and sought after for their valued analysis and authority.
 - ▶ Education;
 - ▶ Regulation;
 - ▶ Member support;
 - ▶ Public Affairs and Promotion;
 - ▶ Learned society and thought leadership.

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JFAR Members: Actuarial responsibilities

- ▶ PRA: Promote the good of the people by maintaining monetary and financial stability.
 - ▶ Prudential regulation rules require financial firms to hold sufficient capital and have adequate risk controls in place. Close supervision of firms ensures that we have a comprehensive overview of their activities so that we can step in if they are not being run in a safe and sound way or, in the case of insurers, if they are not protecting policyholders adequately.
- ▶ FCA: Aim to make financial markets work well so that consumers get a fair deal.
 - ▶ Protecting consumers, Enhancing market integrity, Promoting competition
- ▶ tPR: protects workplace pensions in the UK.
 - ▶ We work with employers and those running pensions so that people can save safely for their retirement.

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Macro environmental drivers STEEPLE I



- ▶ Social
- ▶ Technological
- ▶ Economic
- ▶ Environmental
- ▶ Political
- ▶ Legal/Regulatory
- ▶ Ethical
- ▶ International

