Institute and Faculty of Actuaries, Regulatory Board

Subject	Horizon Scan focus – challenging established theory
Meeting date	18 February 2025
Previous Steer/Approval	Climate risk deep dive
Related horizon scan code	HS09 – insufficient challenge of established practices and theory
International issues considered?	Relevant
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Reviewer	David Gordon, Senior Review Actuary
Purpose	Steer

A: Executive summary

1. This paper is to aid the Board in a discussion on Horizon Scan entry HS09, which covers challenging established theory in the context of actuarial work:

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

2. There is a question mark on whether the financial markets, often dominated by short-term thinking, are appropriately pricing the physical and transition risk from climate change on certain asset classes and sectors. There have also been other significant examples where financial market resilience has come under pressure, sometimes needing major government and central bank interventions to stabilise (examples include the 2008 global financial crisis, the Covid-19 pandemic, and energy price shocks arising from geopolitical instability).

3. Both within and outside of the actuarial profession there is growing challenge and debate around established economic and market theory, and how this may be increasing the risk of flawed decision-making and a lack of appropriate actions.

4. The Board is asked to provide views on this topic, and to what extent the IFoA regulatory toolkit could be utilised to help actuaries, and wider society, manage and mitigate this key risk. Representatives of the IFoA Finance and Investment practice board will be in attendance to participate in the discussion.

B: Introduction and Background

5. The Horizon Scan definition is as follows:

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

6. The IFoA Regulatory Board has published material that touches upon aspects of this risk:
   - 2022 Risk Alert: The impact of high inflation on actuarial practice
   - 2024 Risk Alert: Climate change scenario analysis
7. Key member-led thought leadership output indicates existing scenario and stress testing is leading to a material understatement of potential adverse outcomes. This understates the risk and may lead to reduced urgency of required actions:
   - 2023 Emperor's New Climate Scenarios – a warning for financial services
   - 2024 Climate Scorpion – the sting is in the tail
8. A recent interesting Chatham House article also outlines similar arguments around whether markets are appropriately pricing for known risks and changes in economic outlook, with particular focus on assets with hydrocarbon exposure.

C: Considerations for actuaries

9. This section of the paper is intended to be provide a basis for Board discussion. The points raised and highlighted should not be considered as a 'house' IFoA view, rather a starting point for debate.
10. We live in a world of established doctrine, theories, and practice which influences how we approach many problems in life. One of the strongest and entrenched examples of this is financial markets, where market values are taken to be the single true arbiter of value for assets.
11. However we also live in a world where there are significant changes taking place, and heightened risks from a variety of sources. These include climate, technological advances, and geopolitical tensions. All of these, and other things, should cause us to question established theory, and ask ourselves if it still holds, or at least to the extent that society currently thinks.
12. It's important to differentiate this challenge with an 'alt-truth' view of the world, where simply saying something isn't the case means it is considered as an equally valid fact. Challenging established theory on the basis of reasoning and where possible evidence, should be seen as a critical part of advancing human thinking on a range of topics.
13. If we consider the example of climate-related risk, there is a growing body of opinion that financial markets are not correctly pricing for this in asset valuations. This is seen both in terms of specific assets more exposed to the physical and transition risks, and more widely from potential adverse impacts to economic measures such as GDP.
14. Why is this an issue for actuaries? Actuaries use market valuations across a range of actuarial domains, often basing advice on the insights this provides to them. Indeed, there have been

robust debates in the past where some actuaries strongly challenged moving into the 'market-consistent' arena, albeit for different reasons. It is vital that actuaries think carefully about the risks associated with asset valuations, and any potential shortfalls in the system thinking behind those.

15. What might this mean in practice?

- For 'best estimate' valuations it may be worth thinking about highlighting general uncertainty, and also more specific uncertainty where assets may be more exposed to physical or transition risks.
- This may extend to investment decision-making, with considerations around what to consider when looking at relative prices for different assets.
- Actuaries will often be involved in considering stress-testing and scenarios for assets and liabilities. This provides an opportunity to challenge existing views on the veracity of expert judgements, and the extent to which they are appropriately capturing tail-risk.

16. There are other domains where similar considerations may exist, such as the insurance market. Previously held views on what is insurable and how to measure insurance risks are being constantly challenged, as events that used to be viewed as extreme and highly unlikely, appear to be occurring far more regularly, and with greater impact, than expected.

17. This could have a serious knock-on to financial inclusion and the critical role of insurance within society, highlighting yet another area where actuaries need to challenge established theory, and think about the impact of a changing risk landscape.

18. We know actuaries are already involved and utilising their skills to highlight potential issues with established theories and with IFoA support this influence can continue to grow. This brings with it responsibility and a reputational risk which ongoing regulatory focus can help to mitigate.

D: Conclusions

19. There are likely to be further developments on this topic, and the Executive recommends the Board continues to regularly monitor this risk. The Board is asked to consider whether any of the points raised during the course of the discussion indicate the need for further IFoA regulatory activity to address current or emerging public interest risks.

20. Some potential steps and discussion points the Board might consider include:

a) Would further deep-dive activity on this topic be helpful?

b) Would non-mandatory guidance be appropriate and helpful for members?

c) Would a Risk Alert highlighting key points on this topic be helpful to members (noting the Board has issued three climate-related alerts since 2017)?

d) Are there aspects of education and lifelong learning that should be considered either within the Board remit, or collaboratively with other parts of the IFoA?

e) Would thematic review activity be helpful to gather further information on the most recent work of actuaries in this space (Climate thematic review taking place this year can consider this aspect)?

f) Are there collaboration opportunities that could be explored with other regulators?

g) Should there be consideration of mandatory standards? (either internally to the IFoA, or through liaison with other relevant regulators)

E: Appendices

- **None**