Climate Change – Implications for Insurers
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PRA supervisory statement and the physical climate change risk framework
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Overview

• Background
• Supervisory Statement
• Physical Climate Change Risk Framework
• Concluding remarks
• Q&A

Background – “The Keeling Curve”

• Continuous measurement of the accumulation of CO2 in the Earth’s atmosphere since 1958
• Taken at the Mauna Loa Observatory, on the island of Hawaii by Charles David Keeling
• Year-to-year increase in CO2 roughly matched the amount of fossil fuels burned per year
• Comparative datasets of atmospheric CO2
  – Kew 1898-1901 averaged 274 ppmv
  – Eastern US 1936-1938 averaged 310 ppmv
• By 1976, it was well established that the rising carbon dioxide in the curve was due to anthropogenic emissions

Possible future emission pathways

Avoiding a “Hothouse Earth”

“Precisely where a potential planetary threshold might be is uncertain. We suggest 2°C because of the risk that a 2°C warming could activate important tipping elements, raising the temperature further to activate other tipping elements in a domino-like cascade that could take the Earth System to even higher temperatures (Tipping Cascades). Such cascades comprise, in essence, the dynamical process that leads to thresholds in complex systems.” (Steffen, et al., 2018)
Supervisory Statement SS3/19

• “Enhancing banks’ and insurers’ approaches to managing the financial risks from climate change”
  – Published in April 2019 within Policy Statement PS11/19

• Governance
  – Board to understand financial risks from climate change
  – Board and management to identify Senior Manager with responsibility for managing financial risks from climate change, to be named by 15th October 2019

• Risk management
  – firms to address the financial risks from climate change through their existing risk management frameworks
  – insurers (under Solvency II) to consider possible accumulation of risk in the investment portfolio (particularly via transition risk)

Supervisory Statement SS3/19

• Scenario analysis and stress testing
  – firms (where proportionate) to do scenario analysis to examine the impact of financial risks from climate change on business strategy
  – firms to consider scenarios over both short term (e.g. life of business plan) and long term (e.g. consistent with a global temperature rise of 2 degrees C)

• Disclosure
  – firms will make disclosures about their financial risks from climate change
  – firms to consider if they would benefit from TCFD proposals
    – TCFD = taskforce on climate-related financial disclosure
  – firms could encourage greater climate-related disclosure in the economy through their ownership of financial assets
Background: PRA leading on financial impacts from climate change

- **2015**: Report on "Impact of Climate Change to UK Insurance Industry"
- **2017**: Governor's speech on breaking the tragedy of horizon
- **2018**: Report on "Transition in thinking: the impact of climate change on the UK banking sector"
- **April ’19**: Supervisory Statement 3/18: "Enhancing banks’ and insurers’ approaches to managing the financial risks from climate change"
- **May ’19**: Report by industry-wide working group on a framework to assess impacts from physical climate change for general insurers
- **June ’19**: Climate Scenario analysis as part of PRA’s 2019 Insurance Stress Tests

Background: The stick, the whip and the road

**The stick: Supervisory Statement 3/19**
Sets the regulatory expectations and requires financial services firms to assess impacts from climate change, making a Senior Manager (SMP) accountable.

**The whip: IST2019: Climate Scenario**
The first time a regulator issues a climate scenario to assess impacts from climate change across the different insurance firm activities.

**The road: A supporting Framework**
A report that puts forward a framework to support firms in assessing physical climate change risk and provides example case studies developed by specialist across the market.
A framework for assessing impacts from physical climate change

- **Overview:**
  - The framework is an output of a joint effort by a PRA-led cross-industry working group.
  - The framework is not prescriptive in nature but is intended to be an aid to practitioners.
  - The purpose is to help (re)insurers commence analysis of financial impacts from climate change.
  - We hope that once firms use it, they can propose improvements and evolve it further.
  - It can support firms needing to undertake the IST 2019 Climate Scenario Analysis.

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How the framework works: an overview

- **Stage 1:** Start with the end in mind by first articulating the purpose of the analysis. This in turn will permit the time horizon to be decided as it is driven by the business decision that needs to be informed.
- **Stage 2:** Define which perils/geographies are material for the assessment considering (i) firm exposure/portfolio and (ii) peril current and future risk profile.
- **Stage 3:** Undertake background study to identify readily-available research that will shed light on how the identified material perils’ risk profile will change over time for the material geographies.
- **Stage 4:** Decide on suitability of risk analysis tools considering (i) available resources and (ii) background research outputs.
- **Stage 5:** Calculate the financial impact on metrics that will help decision makers inform their thinking.
- **Stage 6:** The outputs of the calculation should drive action.
The framework report provides real life examples

Challenge #1: It doesn’t move the dial
In the case study published in the Framework report, model providers and firms quantified for a US portfolio the impact of climate change for Flood, Surge and Wind.

Challenge #2: Insurers care for 1yr horizon
Many insurance activities require to consider beyond the 1yr horizon and catastrophe risk specialists can help in assessing climate risk.

Challenge #3: We don’t have the tools
Whilst there is much room for improvement, cat analytics tools can provide with useful information. The case studies in the Framework report provide with examples.

Concluding remarks

• We are in the “Anthropocene”
• Climate Change is expected to drive both Physical and Transition Risks
• These risks will impact insurers, leading to financial risks
• Regulators, including the PRA, will be challenging firms to assess and manage these risks
• New tools are needed to help with this, and some are already emerging
Questions

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Comments

19 June 2019