



NATIONAL ASSOCIATION OF INSURANCE COMMISSIONERS

MEMORANDUM

TO: Raymond G. Farmer (SC), Co-chair of the Climate and Resiliency (EX) Task Force
Ricardo Lara (CO), Co-chair of the Climate and Resiliency (EX) Task Force
Kathleen A. Birrane (MD), Vice-chair of the Climate and Resiliency (EX) Task Force

FROM: Wanchin Chou (CT), Chair of the Catastrophe Risk (E) Subgroup
Tom Botsko (OH), Chair of the Capital Adequacy (E) Task Force and the Property and Casualty Risk-Based Capital (E) Working Group

DATE: April 26, 2021

RE: Response to Request for Proposed Changes to the P/C RBC Catastrophe Component

On March 15, 2021, a referral letter from the Climate and Resiliency (EX) Task Force was sent to the Catastrophe Risk (E) Subgroup to recommend the Subgroup consider:

1. Expanding the current catastrophe framework to include other perils such as wildfire, flood and/or convection storms that may experience a greater tail risk under projected climate-related trends

The Subgroup has been researching this issue and in the process of developing the catastrophe risk charge for wildfire peril. At this point, the Subgroup plans to review the additional perils one at a time. Flood and convection storms are some of the possible candidates for our future consideration.

2. Implementing two perils in the Risk-Based Capital (RBC) framework by year-end 2022 if possible

The Subgroup supports for 2022 reporting, but only for disclosure purposes until it can be studied and looked at more carefully. While we are working on implementing the wildfire peril in Risk-Based Capital framework by year-end 2022 for disclosure only, we cannot promise that we will have enough information to study the flood peril effectively.

Properly quantifying the risk charge for any catastrophe peril is important. George Box wrote the famous line in 1976, "All models are wrong, some are useful." Even the best models of the world are imperfect and taking appropriate time and steps to understand each commercial model is essential. We have gathered some information for wildfire models and invited subject experts from the industry to explore how to implement the wildfire peril in Risk Based Capital framework by year-end for disclosure only if possible. The flood model is more mature in Europe because they have established better water survey systems. The stochastic flood model in the US is gaining some support due to recent regulatory discussions in opening private flood insurance program instead of relying on the NFIP (National Flood Insurance Program) only. The stochastic flood model will be more mature with better underlying statistics in the near future.

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3. Revising the current criteria for all commercial modelers are allowed to be used

There are several commercial vendor catastrophe models available in the industry, but the model outputs provided could be very different. To include other perils that may experience a greater tail risk under projected climate-related trends, should we just accept the outputs from all catastrophe models? should we allow the current wildfire models as they are today to be used for RBC charge? The subgroup is evaluating the possibility of allowing additional third party models or adjustments to the vendor models to calculate the cat model losses by 2022 reporting.

Based on the NAIC's Risk-Based Capital Model Act, the purpose of the RBC formula is to identify the weakly capitalized companies. It is our intent to take appropriate time and steps to understand each commercial wildfire model and assign appropriate risk charge with good understanding of the assumptions, limitations, data governance and model developments, etc. However, please be aware of that the Subgroup is only the assessor of the risk to the company, not the reviewer of the commercial models. The approval of the commercial catastrophe models and its validation process is a different subject that will require more discussions.

4. Ensuring all modeling information are documented and made available to NAIC staff and lead-state regulators

The Subgroup agrees with your recommendation regarding this documentation subject.

The Subgroup appreciates the Task Force's recommendation provided previously. Please contact, Eva Yeung, NAIC staff support for the Catastrophe Risk (E) Subgroup, at eyeung@naic.org with any questions.

Cc: Dan Daveline; Eva Yeung