



AMERICAN ACADEMY *of* ACTUARIES

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Via email to eyeung@naic.org

Ron Dahlquist, Chair
Catastrophe Risk (E) Subgroup
Capital Adequacy (E) Task Force

c/o Eva Yeung, Senior Insurance Reporting Analyst
National Association of Insurance Commissioners

1100 Walnut Street, Suite 1500
Kansas City, MO 64106-2197

Re: Changes to Risk-Based Capital Formula Spreadsheets to Incorporate Property Catastrophe Risk on Information-Only Basis for 2013 Annual Statements

Dear Mr. Dahlquist:

On behalf of the Casualty Practice Council of the American Academy of Actuaries,¹ we are pleased to have the opportunity to review and comment on the Catastrophe Risk Subgroup's recent proposed changes to the Risk-Based Capital (RBC) formula spreadsheets to incorporate property catastrophe risk. We strongly support this enhancement to the current RBC methodology, as the absence of the catastrophe charge has represented a gap in the formula.

We view this change as a very important step towards a more forward-looking view of an insurer's true risk exposure and its required capital levels. It is our understanding that these proposed changes would be implemented on an information-only basis for 2013 annual statements. The reflection of a catastrophe component in the RBC calculation (R6 and R7 charges) will surely increase insurer capital requirements and reduce insurers' flexibility with regard to capital fungibility. As such, further calibration of the results could be warranted. As with many proposals, the true test will occur when data is collected, spreadsheets are populated, results are tabulated, and unintended consequences are identified and mitigated.

We applaud the group not only for its enhancements to the Risk-Based Capital methodology but for the careful considerations in other areas of the RBC formula to ensure that all charges are capturing the necessary risks and, at the same time, not double-counting the catastrophe charges.

¹ The American Academy of Actuaries is a 17,000-member professional association whose mission is to serve the public and the U.S. actuarial profession. The Academy assists public policymakers on all levels by providing leadership, objective expertise, and actuarial advice on risk and financial security issues. The Academy also sets qualification, practice, and professionalism standards for actuaries in the United States.

Our comments with respect to this draft focus around four elements: the premium charge, catastrophe charge, contingent credit risk, and calibration of the action and control levels.

Premium Charge

With regard to the premium charge, it appears to us that the subgroup went to great lengths to identify and remove the effect of prior catastrophe losses in the forward calculation of the underwriting premium charge. As the risk associated with catastrophe exposure is truly in the in-force book, this approach is reasonable and appropriate. Companies can very easily adjust their strategies and risk appetites based upon the losses they experience after a major event, and the premium charge may not reflect these shifts in business. An extreme example would be a company that exits catastrophe-exposed business going forward, resulting in no catastrophe exposure, where the premium risk charge would still include the historical, very high loss ratios and subsequent risk charges. We are concerned over the need to ensure consistency with regard to what is incorporated in the catastrophe charge when compared to what is included in the catastrophe losses and subsequently removed from the premium charge. There could be instances where some exposures are removed from the premium charge but are not reflected in the catastrophe charge

With that said, there are some areas that appear to be potentially misleading. While we support the intent of the proposal, some additional clarification or enhanced labeling of the instructions would be beneficial. In the PR100-122 and 034 spreadsheets, column (28B) calls for the non-U.S. catastrophe losses. We believe these losses would emanate from non-U.S. catastrophe events (Japanese earthquake [EQ], New Zealand EQ, Thailand floods, etc.); however, it is not clear if the non-U.S. catastrophe losses are removed in column (28C). As there is no catastrophe charge for non-U.S. events, we would expect the non-U.S. losses should not be removed in column (28C); although the labeling suggests that they might be. The removal of the non-U.S. catastrophe losses without a corresponding non-U.S. exposure catastrophe charge would result in an unnecessary reduction in the capital charge. The non-U.S. catastrophe exposures may be material for some companies that write global property business. Additionally, it would be very useful to reinforce that tornado losses are not to be included in the catastrophe loss columns. The results of 2011 tornadoes certainly gave us a strong view of the loss potential, and some insurers may inadvertently include the tornado losses in the data because of the magnitude of the Property Claim Services loss.

On a smaller, more operational note, the spreadsheets call for entries by line of business for lines that typically incur no catastrophe losses, such as auto liability. While occasionally we see loss activity arising from these lines of business, it is usually modest, and, more importantly, it is rarely incorporated in the actual modeling and therefore would likely not be included in the R6 and R7 charges. You might arrive at a more precise result by identifying the required lines of business (including workers' compensation earthquake risks) for both model results and adjustments to the premium charges.

Catastrophe Charge

The inclusion of a catastrophe charge, while important, also can lend itself to potential misinterpretations. Being more prescriptive will ultimately better serve all parties in the long run. It would be very beneficial to specify that the requested model results are the *aggregate exceedance probabilities* and not the *occurrence exceedance probabilities*. As referenced earlier, the charge as currently proposed does not reflect any non-U.S. catastrophe exposures. A potential remedy is to move from the current loss curve for individual perils to the aggregate loss curve incorporating additional perils (U.S. hurricane, earthquake, Europe windstorm, tornado, etc.). Expanding the PR025 sheet to capture the non-U.S. modeled information and the all-peril aggregate curves might also be informative.

A much larger issue will center on the actual model output included in the calculation of the catastrophe risk charge. As noted in the footnote on PR025, the NAIC would not be requiring any prescribed method and is instead expecting insurers “to use the same data, modeling, and assumptions that the insurer uses in its own internal catastrophe risk management process.” Many companies make significant adjustments to their data and parameters to better reflect loss potential (data quality, demand surge, storm surge, hurricane frequency, allocated loss adjustment expense, undervaluation, un-modeled exposures, and other exposure adjustments, etc.). While the approach to adjust the models is clearly a best practice, insurers who make these necessary adjustments to the models will incur a higher capital charge than others, especially at the return periods in the tail. This would be similar to companies booking higher loss reserves than their peers, although the use of the Statement of Actuarial Opinion mitigates the risk of booking reserves that are too low. To better level the playing field, the NAIC might consider prescribing a set of assumptions (i.e., with and without model adjustments) and capturing both sets of modeled results. A further enhancement to exhibit PR025 would be to additionally inquire about the modeling process and the valuation (exposure) date of the results:

- Is the modeling done in-house or by a third party (outside consultant, intermediary, etc.);
- Which model or models are being used (including the model version or release number); and
- Are the selections based on one model or a combination of models?

PR025 is capturing modeled losses at various return periods going as high as 1000-year results. Is the 1000-year result necessary, and what purpose does it serve? Should the exhibit also capture smaller return periods like 10-year and 50-year results as well as the expected losses? This information would give the user a better understanding of the risk versus reward profile of the business.

Contingent Credit Risk Charge

It is reasonable to incorporate a contingent credit charge in the catastrophe component of the formula. As stated in the explanation, receivables created at the 100-year loss scenario could have a material credit risk. This charge is similar to the existing reinsurance charge (R3), which is currently under review. While there is little hard data to validate the appropriateness of this assumption, because we have had no 100-year loss scenarios, the approach is not unreasonable. To get a better sense of the use of reinsurance, it might be useful to collect, at an aggregated level, the gross, ceded, and net catastrophe losses for the major events in the last 10 years.

Also, the formula correctly excludes from the contingent credit charge, cessions to categories of reinsurers not subject to the RBC credit risk charge (U.S. affiliates, mandatory pools, etc.). Should there be some consideration of a reduced contingent credit charge given to the cessions to non-U.S. affiliated companies or a parent (group) company?

Calibration of Control Levels

Lastly, the current explanation is silent as to whether there will be adjustments to the calibration of the final results when looking at the total adjusted capital to Risk-Based Capital. Will there be a review of the percentages for Company Action Level, Regulatory Action Level, Authorized Control Level, and Mandatory Control Level? While many companies may consider this as a non-event from a capital perspective, due to strong enterprise risk management practices or current rating agency requirements, other insurers may be caught by surprise. The trial reporting period is warranted and necessary to provide some time for insurers in the latter group to adjust to the new capital levels.

Thank you for giving us the opportunity to comment, and we applaud and strongly support your efforts to enhance the regulatory process to be more forward-looking with respect to the risks faced by insurers. If you have any questions about our work, please feel free to contact Lauren Pachman, the Academy's casualty policy analyst, at pachman@actuary.org.

Sincerely,

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Vice President, Casualty Practice Council
American Academy of Actuaries