Thinking Outside the Black Box™
Catastrophe Management
Operational Review
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Catastrophe Management Operational Review

Catastrophe models have become an essential component of the risk management process of most insurers. Yet many companies do not fully understand the uncertainty inherent in the models, or how to best utilize the models in light of this significant uncertainty. The models are frequently used in isolation for the purpose of determining probable maximum loss estimates, and model results may not be properly integrated into the operations of the organization. In addition, point estimates from the models are subject to high volatility and instability, making it difficult for insurers to develop a robust framework for integrating catastrophe model information into risk management decisions.

Boards of Directors, rating agencies, and regulators are taking a much more active interest in the models and how they are being used by companies. There is growing interest in finding out not just which models companies are using and what they indicate, but how companies are testing the model output in the context of their own information and integrating what they’ve learned into their operations. To fully realize the benefit of the models, the data going into the models must be accurate, the assumptions underlying the models must be consistent with a company’s operations, and the model results and other relevant information must be thoroughly scrutinized and interpreted before it can be integrated into the company’s processes.

Karen Clark & Company is uniquely qualified to help you develop better and more holistic risk assessment and risk management processes. Karen Clark & Company was formed by Karen Clark, an internationally recognized expert in the field of catastrophe risk assessment and management who has been helping major corporations estimate and manage potential losses from catastrophes for over 25 years. The Company has a seasoned consulting staff with extensive industry experience in catastrophe risk assessment and modeling, data management, systems technology, underwriting and actuarial science. The consulting staff has the tools and information to provide you with focused insight that allows you to “think outside the black box” of the typical catastrophe model.

A comprehensive review of your company’s catastrophe management processes will focus not only on the use of catastrophe models, but on the integration of comprehensive catastrophe loss analytics into proactive risk management operations.
Catastrophe Management Operational Review

The Catastrophe Management Operational Review covers all the important components of a sound catastrophe risk management process. Karen Clark & Company consultants help you address all of the following areas:

Data management processes
- ✓ Verifying risk characteristics
- ✓ Benchmarking the exposure data
- ✓ Preparing data for modeling
- ✓ Scoring the data to determine a consistent measure of exposure data quality

Catastrophe modeling processes
- ✓ Performing model analyses
- ✓ Identifying model anomalies
- ✓ Benchmarking model-generated loss estimates with other credible information
- ✓ Deciding which analytics are most credible and appropriate for use
- ✓ Defining robust information on which to base decisions

Underwriting and pricing processes
- ✓ Developing underwriting guidelines that account for catastrophe risk
- ✓ Assessing the catastrophic loss potential of new business
- ✓ Using pro forma tools to assess catastrophic loss potential in growth areas
- ✓ Monitoring aggregates
- ✓ Limiting risk in insurance contracts
- ✓ Appropriately reflecting catastrophe costs in individual risk rating plans and aggregate ratemaking
- ✓ Utilizing a strategic approach that fits your book of business

Risk management processes
- ✓ Determining the availability of adequate resources for handling catastrophic events
- ✓ Identifying and achieving the objectives for a reinsurance program
- ✓ Determining the capacity for absorbing retained losses
- ✓ Managing profit distributions

While the Review is intended to comprehensively cover all of the listed areas, it can be readily customized to focus on your specific needs in a given situation.

Key Questions Addressed by Thinking Outside the Black Box™

Karen Clark & Company consultants will provide you with the assurance you need so that you can comprehensively answer the following questions.

Does your company:

1. Accurately collect information pertaining to the exposure associated with new business?
2. Utilize appropriate parameters in catastrophe models which reflect actual operations?
3. Utilize the most appropriate and robust analytic tools for your book of business?
4. Effectively use underwriting processes to accept business and control aggregate exposure?
5. Have policy forms and contracts which limit and control exposure to catastrophic loss?
6. Properly reflect catastrophe exposure in rate indications and rating plans?
7. Have a cost-effective reinsurance program in place consistent with your risk management objectives?
8. Have adequate resources to handle catastrophic loss events?
9. Have adequate capacity to absorb projected retained catastrophe losses over a 10 year period?
10. Appropriately reflect catastrophe exposure in determining target levels of profitability?
Key Benefits

Upon completion of the Catastrophe Management Operational Review, you can expect to have identified and mapped out all the key steps to achieve a state-of-the-art catastrophe risk management program that is both effective and robust.

- You will have a program designed to increase profitability, reduce reinsurance cost, and enhance financial ratings.
- You will have a complete and transparent understanding of your catastrophe risk exposure and potential losses.
- Your catastrophe risk management processes will be aligned towards achieving your risk management objectives.
- You will be able to confidently utilize catastrophe models and other analytic tools with understanding and insight.
- The pricing of your products will reflect the levels of reward required to fund the levels of risk associated with your exposures.

In summary, the Catastrophe Management Operational Review will provide you with a holistic program for the effective management of your catastrophic risk. The program will be suitable for presentation to the Board of Directors, rating agencies, and regulatory authorities.

For more information, please contact John Tierney, at jtierney@karenclarkandco.com