



AMERICAN ACADEMY *of* ACTUARIES

September 30, 2010

Ms. Louise Francis
Vice President - Research & Development
Casualty Actuarial Society
c/o Cheri Widowski, CAS Research Manager
4350 N. Fairfax Drive, Suite 250
Arlington, Virginia 22203

Re: Request for Research Assistance

Dear Louise:

As you may know, the Property and Casualty Risk-Based Capital Committee of the American Academy of Actuaries¹ works on Risk-Based Capital (RBC) and related solvency management tools. The Committee provides actuarial input on all RBC and solvency monitoring issues and ensures its communication to all relevant audiences. Some of the Committee's work is done at the request of the National Association of Insurance Commissioners (NAIC).

We seek your assistance in performing some of the research required to accomplish the Committee's current tasks. Those tasks include responding to a request that the Academy recently received from the NAIC regarding changes to the RBC formulas for all practice areas and several NAIC requests that specifically affect the P&C formula. Our request is being made in recognition of the fact that, as the primary organization devoted to advancing the body of knowledge of actuarial science applied to property, casualty, and other risk exposures, the Casualty Actuarial Society (CAS) is equipped to successfully conduct this research. We seek your aid on two projects, both of which are outlined below.

Project A: Research geared toward developing a solvency monitoring framework appropriate for the U.S., with a specific emphasis on (1) capturing risk interdependence and (2) proper calibration of RBC formulas

This analysis will include validating the existing ways of capturing risk dependence in RBC frameworks and/or the development of new approaches. Calibration of RBC formulas

¹ The American Academy of Actuaries ("Academy") is a 17,000-member professional association whose mission is to serve the public on behalf of 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.

involves careful choice of appropriate risk metrics. You may find it useful to examine the work already performed by our Committee, which we would be pleased to provide, as well as developments in other countries.

The analysis need not be limited to the risks already reflected in the current NAIC P&C RBC formula in the U.S. or the interdependence of these risks. Other risks, including those that are not directly captured in the current formula, may be taken into account.

In developing a general framework for capital requirements, including methods of measuring risk interdependence, our preference is to use methodologies that may also be applied in the analysis of life and health insurance companies.

Project B: Analysis of methods of properly quantifying reserve and premium risks and corresponding capital charges in RBC formulas for P&C insurance companies

This analysis will need to focus on specific components of the RBC formula, rather than the general RBC framework. It will need to include the following two primary components:

1. Providing general research that identifies better ways to quantify reserve and premium risks in solvency monitoring and determine capital charges to account for these risks; and
2. Researching ways to improve the calculation of reserve and premium charges in the current NAIC RBC formula.

The latter is of greater immediate importance and thus may be treated as a separate project. Both should take into account practical considerations, such as the availability of reliable historical data and its relevance, and how these risks differ by line of business.

We ask that the research support provided by the CAS incorporate evaluating alternative approaches, including the identification of their strengths and weaknesses, and quantitative illustrations of possible application of alternative approaches. This research is focused on solvency monitoring by regulators, which may present constraints not found in internal company modeling performed as part of enterprise risk management and capital optimization.

Members of the Academy's Property & Casualty Risk-Based Capital Committee are already working on a study of these topics, and some of them may be willing to join the CAS research working parties both to provide assistance and explain the full context of the research projects.

We are happy to share with you the relevant research that we have already performed or discuss additional details clarifying the scope of these research projects. We look forward to working with you. If you have any questions about this request, please feel free to

contact me through Lauren Pachman, the Academy's casualty policy analyst, at pachman@actuary.org.

Sincerely,



Alex Krutov
Chairperson
P&C Risk-Based Capital Committee
American Academy of Actuaries

cc: Ralph Blanchard
Roger Hayne
Gary Josephson
Tim Wisecarver