Risk Management

November 2005 – Issue 6

Risk Management Section forms bond with CAS

The Risk Management Starship

by David N. Ingram

Editor's Note: In Spring 2005, the boards of the SOA and CAS approved the rededication of the Risk Management Section as a jointly sponsored body. Since that time, CAS members have been encouraged to join the section. In the recent section election, three CAS members ran for Section Council and one (Kevin Dickson) was elected.

Welcome to the new CAS members of the Risk Management Section. Please quickly take your seats so that we can take off.

It is very exciting that we have chosen to fly together. But where are we going, you ask? This starship is headed directly into the future—nonstop to the future of risk and risk management.

But, you say that we actuaries have always dealt with risk and risk management; it is our past. Well, right you are, but while we have been doing that, the world has been changing around us. The field of risk management has morphed into enterprise risk management (ERM) and expectations of investors, managers, regulators and customers for ERM practices have gone through the roof.

Both those sky-high expectations and the talented competition have caused us to pause and look around for friends before embarking. And somehow we found that our fellow actuaries were also starting on the same trip. But now we have to immediately get to work. There is no time to lose. There are a number of other starships going in the same direction. Some took off quite a while ago. When we land, we need to hit the ground running—knowing where we are going and how we are going to get there.

So during this flight, there will be no movies—we need to get to work. My suggestion is that we need to be ready with two things when we land: a comprehensive model of risk (CMR) and an understanding of the unique skills, experience and training that each of our branches of actuarial science bring to the risk management table.

The CMR will be our map of where we are going. It's a single framework for looking at any risk including: high frequency, low severity risks; low frequency, high severity risks; market tradable and market hedgeable risks; totally illiquid risks; long-tailed risks and short-tailed risks; risks with inefficiently exercised optionality and completely efficiently exercised options; insurable and uninsurable risks; diversifiable and systematic risk. Notice that I did not say market, credit, hazard (insurance) or operational risks. I did not say workers' compensation, variable annuity, long-term care, property, Florida hurricane, pandemic or any other specific risk label. The specific risks need to fit into the CMR. If there are risks that do not fit into the model, then we need to move to make the model more comprehensive. Because this model, if it is built right, can carry the risk management field into the next century. A good CMR will provide the framework for approaching all existing risks consistently and will help to identify future risks and lead to efficient discovery of the best risk management techniques to fit each combination of risks, opportunities and risk appetites. That model will acknowledge that all types of risk are badly behaved and that they often look different when viewed at different points in time and at different confidence intervals.

Each of our actuarial professions has pursued somewhat different paths to looking at risk and dealing with risk focusing on our own areas of concentration and not the bigger evolving picture. Each of the points of view and the tool sets that we have developed are powerful and they are allowing us to be significant and unique players in the risk management space. But as remarkable as it may seem, few of us know about the strengths and paradigms and tools of the "other half" of our profession. So during this flight, we need to pool our knowledge and our talents. As an actuary trained in life insurance work, I can see that

David N. Ingram, FSA, is director of enterprise risk management with Standard & Poor's in New York, NY. He can be reached at *david_ingram@standardandpoors.com.*

the tools that casualty actuaries use to work with incomplete data, to apply credibility theory techniques, to understand and apply numerous different loss distributions and to analyze tail risks would be very useful things to know in any risk management situation. And the direct experience that casualty actuaries can bring to the problem, that is vexing those who are struggling to comply with Basel II requirements to quantifying and managing operational risks, is enviable. Perhaps life actuaries can share our experiences with asset liability management—our hard lessons with financial market risks and our approach to modeling the situations that are described by behavioral economists. Together we can develop a Combined Actuarial Risk Management Toolkit (CARMT) that would become the Swiss Army Knife of risk management.

The actuarial risk manager who disembarks from our risk management starship ride will be powerfully equipped with the CMR map and the CARMT tools. When we land in the future, we will be ready for the risks we encounter there.

As we set out on the flight, I want to pause for a moment to thank those who have helped to arrange the flight. Don Mango, John Kollar, Kevin Dickson, David Ruhm, Shaun Wang, Valentina Isakina, Mike McLaughlin and Harry Panjer, as well as others, were instrumental in this collaboration. They dared to suggest to each of our organizations that we actually need each other to succeed on this journey.

So as we start the flight, the new leaders of this newly combined Risk Management Section are challenged to make this collaboration work. We will be struggling to form the CMR, starting with undoing the "Tower of Babel" like impact across the financial services industry of our separate terminology of risk and risk management by developing a common language. As the next year progresses, you should see the evidence of our collaboration in this newsletter, in the sessions that we sponsor at the SOA and CAS meetings, especially in the ERM Symposium where 2006 will reflect our fourth year of collaboration. We will be looking to bring together the best of the work done by the CAS ERM Committee and the SOA Risk Management Task Force and will find ways to develop joint research projects.

To help to accomplish this we have expanded our section council from nine to 12 members, but each of the section members needs to take part in this effort. If each of us makes it our personal goal to expand our risk management horizons by learning something from the "other" actuaries, we will automatically start to see the rewards of this collaboration as we find new and better ways to accomplish the risk-related tasks that are our daily jobs. But do not stop there. Bring your experiences back to the group and share your learnings. The unique combinations of techniques and approaches to problems will certainly be used to build this future CARMT and to develop the CMR.

Think about it. I am excited to be traveling with you. We will talk about it more as the trip progresses. See you in the future. ✦

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