Volume 2, Issue 4

December 2009

CAS Research & Development News

2009 Year in Review Issue

Reminder:

First Cycle Reports Due

January 8

Inside this issue:

Climate Change Committee

The Climate Change Committee, under Chairperson Susan Woerner, celebrated its first year of existence in 2009.

The Committee has 30 committee members plus 2 science advisors from the US, Canada, the UK, and Australia.

In cooperation with SOA, CIA, and AAA, the Committee launched Part 1 of an RFP in November called "Determining the Impact of Climate Change on Insurance Risk and the Global Community." Proposals were due December 4 and members of the committee are currently going through the proposals and expect to select a winner by January 31st. Part II of the RFP will be launched later.

The RFP is part of the work of the Actuarial Climate Volatility Index, a Subcommittee of the Climate Change Committee that is headed by Caterina Lindman. This Index will be a resource for actuaries and others in developing predictive models for anticipated climate change related losses or opportunities as well as for risk management strategies.

The Committee has also developed professional education programming. It conducted a Webinar in June and put on a General Session at the Annual Meeting in November.

The Committee has also made use of the WebEcho feature available for teleconferences and has listened to and viewed presentations on climate change issues by committee member and science advisor Katherine Hayhoe and Ohio State University professor Jay Hobgood.

The Committee meets approximately every two months. It's next meeting will be in February.

Committee on Management Data & Information

Virginia Prevosto has taken over as Chairperson for the Committee on Management Data and Information, replacing John Stenmark, who served a two-year term. Seven new members also joined the Committee, thanks to the Participation Survey.

The committee meets quarterly and their most recent teleconference was December 2. Their next meeting will be held in March at the RPM Seminar.

The 2010 Call Paper Program is wrapping up, with 5 completed papers coming out of the program. The papers will be published in an upcoming issue of the *eForum* and some authors are presenting their papers at the RPM Seminar in March.

Professional education continues to be a primary part of the committee's goals. In 2009, the Committee put on a Webinar in September and contributed sessions at the RPM Seminar, Casualty Loss Reserve Seminar and Reinsurance Seminar. In 2010, they plan to put on sessions at the RPM Seminar, Reinsurance Seminar, Spring Meeting, and Casualty Loss Reserve Seminar.

Important Meeting Dates and Deadlines for 2010

January

January 7 — EC Books Due

January 8 — First Cycle Reports Due

January 18 — EC Meeting

February

February 11 — EC Books Due

February 23 — EC Meeting

February 26 — CLRS Session Requests Due

March

March 8 — Actuarial Review Deadline (May issue)

March 11 — Board Books Due

March 15-17 — RPM Seminar (Chicago, IL)

March 22-23 — Board of Directors Meeting

March 29 — EC Books Due

April

April 8 — EC Meeting

April 8-9 — Leadership Meeting (Baltimore, MD)

April 12-14 — ERM Symposium (Chicago, IL)

April 16 — Second Cycle Report Due

May

May 6-7 — Seminar on Reinsurance (New York, NY)

May 7— Annual Meeting Session Requests Due

May 13 — Board Books Due

May 17 — EC Books Due

May 23 — Board of Directors Meeting

May 23-26 — Spring Meeting (San Diego, CA)

May 25 — EC Meeting

June

June 7 — Actuarial Review Deadline (August issue)

June 14 — EC Books Due

June 22 — EC Meeting

July

July 15 — EC Books Due

July 23 — Third Cycle Reports Due

July 26 — EC Meeting

August

August TBD — Participation Survey Results Received (Begin Contacting #1s)

August 19 — EC Books Due

August 30 — EC Meeting

September

September 2 — Board Books Due

September 6 — Actuarial Review Deadline (November issue)

September 10 — Fourth Cycle Reports Due

September 13-14 — Board of Directors Meeting

September 20-21 — Casualty Loss Reserve Seminar (Boston, MA)

September 29 — EC Books Due

September 30 — Participation Survey Contact Form Due (All #1s Must Be Contacted)

October

October 7-8 — EC Meeting

October 27 — Board Books Due

November

November 1 — EC Books Due

November 7 — Board of Directors Meeting

November 7-10 — Annual Meeting (Washington, DC)

November 9 — EC Meeting

November 10 — Committee Rosters Finalized

December

December 6 — Actuarial Review Deadline (February issue)

December TBD — EC Meeting

Committee on Ratemaking

The Committee on Ratemaking is now chaired by Todd Lehmann, who took over for John Lewandowski in November. The Committee has welcomed seven new members recently and held their most recent meeting on December 14.

Over the year, the Committee finished up the 2009 Call for Papers. Twelve papers from the call were published in the Winter *eForum* and four of those were also invited to present at the Ratemaking and Product Management (RPM) Seminar in March.

The Committee created a short online survey soliciting ideas from RPM attendees for topics on which they would like to see more future research. The results from this survey were incorporated into the 2011 Call for Papers announcement, which got underway this past year.

Nineteen proposals were received for the 2011 Call for Papers. The group has divided into four Subcommittees and begun to review the first drafts. Eventually, the Committee will decide which final papers will be published, presented at the 2011 RPM Seminar, and recommended for a prize.

Former Chair John Lewandowski is leading the effort to create an International Ratemaking Survey along with Todd Lehmann, Angelo Bastianpillai, Bill Carpenter and Glen Leibowitz. They are working with James Tanser of the UK, Peter McCarthy of Australia, and Bill Premdas of Canada to enhance the International perspective. The goal is to produce a survey covering all aspects of pricing: Personal lines, Commercial Lines, London market and Reinsurance. The online survey will be ready for respondents starting at the 2010 RPM Seminar and the results will be presented at the GIRO conference and the CAS Annual Meeting.

Several members of the Ratemaking committee are collaborating with the Reserves committee on an R Working Party which you can read more about on page 5.

Committee on Theory of Risk

The Committee on the Theory of Risk (COTOR) is chaired by Steven Mildenhall. However, Committee activities are coordinated by the Vice Chair, Richard Derrig.

This past year, COTOR has explored various topics on which to issue Requests for Proposals and have issued two: one on Mark-to-market and one on Risk Premia. So far, there has been minimal response to them so the Committee is looking into revising and reissuing them. They are also looking into issuing an RFP on Asset Risk-Liquidity.

The next teleconference will be January 12.

Committee on Health Care Issues

The Committee on Health Care Issues, chaired by Vince Yezzi, met most recently on December 16. Steve DiCenso has become the Committee's Vice Chairperson. The committee also added 4 new members.

The Committee has worked to provide sessions on health care topics at CAS meetings and will continue to do so. In 2009, sessions were held at CLRS and Annual Meeting.

Some of the other projects underway for the Committee are the Wiki, which it hopes to launch in 2010, and a possible Working Party on Health Economics.

The Committee also consistently updates its Web site to provide the latest links, presentations and papers about health care topics. Its site can be found at: http://www.casact.org/health/.

Finally, the Committee plans to continue to research workers compensation and health care costs.

Committee on Reinsurance Research

The Committee on Reinsurance, chaired by Gary Blumsohn, has welcomed thirteen new members for 2009-2010 and held their most recent teleconference on December 3 where Leigh Halliwell discussed his paper, "Mixing Collective Risk Models".

Over the year, the Committee has held a number of discussions on topics including skewed data, data quality, cat bonds and risk models.

They also finished up their 2009 Call for Papers which saw four papers published in the *eForum*. Neil Bodoff and Yunbo Gan were awarded the Reinsurance Prize for their paper "An Analysis of Cat Bond Market Pricing," which was presented at the Seminar on Reinsurance in May.

Committee on Dynamic Risk Modeling

The Committee on Dynamic Risk Modeling is now chaired by Robert Bear, who took over for Nathan Babcock in November. The most recent committee meeting was held December 7, where they welcomed sixteen new members.

The committee just finished up the 2009 Call for Papers and awarded a prize to authors John Burkett, FCAS, MAAA, PhD; Jennifer Cheslawski, ACAS, MAAA; Gerald Kirschner, FCAS, MAAA; Timothy Pratt, FIAA, MAAA and Diana Rangelova, Fellow, Institut des Actuaires for their paper "Holistic Approach to Setting Risk Limits," which will be published in the Winter *eForum*. The authors will also present their paper at the 2010 Enterprise Risk Management Symposium.

Over the year, the Committee has initiated new efforts such as Working Parties on the Economic Capital Model and the DRM Handbook, as well as continued the efforts of the Working Party on Loss Simulation Model and Working Party on Dynamic Financial Analysis. You can find more about these Working Parties on page 5.

The Committee is also working with the relevant CAS Committees to develop DRM syllabus material for the

Research Grants Task Force

The Research Grants Task Force, previously known by the name AERF Grants Task Force, is chaired by Linda Howell.

The Task Force is responsible for looking over proposals from the Individual Grant Competition and determining which are worthy of funding from CAS.

The process has started for 2010. Brief proposals were due October 19 and Task Force members met on November 9 to discuss which authors should submit full proposals. Funding will be awarded in February.

In 2009, money was provided for four projects.

Committee on Valuation, Finance & Investments

The Committee on Valuation, Finance and Investments is chaired by Jason Russ and welcomed two new members for 2009-2010.

In August, the Committee issued a Request for Proposals on Risk Margins and has awarded a contract to a group of researchers from Milliman. A Call for Papers on the Parameters of a Financial Crisis has launched. Proposals for this are due January 18.

The next teleconference will be held in January.

Committee on Reserves

The Committee on Reserves, chaired by Mark Shapland, added seven new members to the committee in 2009.

The Committee's big project in 2009 and 2010 is the 2010 Call Paper Program. Twenty-four proposals were received. Final papers will be published in the Fall *eForum* and presented at CLRS in September.

The Committee has two Working Parties that Mark Shapland hopes to wrap up in the next year. One of them, the Tail Factors Working Party, is close to completion. In addition to those two, the Committee on Reserves is helping to contribute to the newly formed R Working Party. Tom Kolde agreed to serve as Co-Chairperson. More on that Working Party can be found on page 5.

2009 Prize-Winning Papers

The Hachemeister Prize Committee awarded its annual prize to Thomas Mack for his paper, "The Prediction Error of Bornhuetter/Ferguson." They will soon get started on choosing the winner for 2010.

Other papers awarded in 2009 were:

- An Analysis of the Market Price of Cat Bonds by Neil Bodoff and Yunbo Gan (Reinsurance Prize)
- Natural Disaster Insurance and the Equity-Efficiency Trade-off by Pierre Picard (ARIA Prize)
- Holistic Approach to Setting Risk Limits by John Burkett, Timothy Pratt, Gerald Kirschner, Jennifer Cheslawski and Diana Rangelova (Dynamic Risk Modeling Award)

Working Party News

R Working Party

The R Working Party is jointly sponsored by the Ratemaking and Reserving Committee and was officially formed in June of this year with the purpose of making advanced R-based reserving, ratemaking and predictive modeling procedures available, accessible and of practical value to a wider audience.

The Working Party is chaired by Lee Bowron from the Committee on Ratemaking and Tom Kolde from the Committee on Reserves.

They held their most recent meeting on December 4 and discussed what information is out there about R and also how they can obtain datasets for their work. The first step will to be to create a tutorial for new users of R that will include instructions on installing R, importing data, manipulating data and examining data for consistency and reasonableness. From there, the Working Party will explore more advanced topics such as examples of things R can do, but Excel cannot.

Public Access DFA Model Working Party

The Dynamic Financial Analysis Working Party is chaired by Pat Crowe and Morgan Bugbee.

Over the year they have been working in conjunction with parent Committee, Dynamic Risk Modeling on the 2009 Call for Papers. The focus of the Call was to use the DYNAMO model to illustrate how the Dynamic Risk Modeling process can be applied to solve real world P&C Insurance problems.

The DRM Committee has asked Bob Azari, who is an expert with DYNAMO, to give an online presentation of the model in February. You can find the model on the CAS Web Site here: http://www.casact.org/research/index.cfm?fa=padfam

Loss Simulation Model Working Party

The Loss Simulation Model Working Party, chaired by Robert Bear, has been working closely with Hai You, Vice President Technology at Goouon Actuarial Solutions, on his approved proposal to develop the model in VB.Net and R. The model is close to completion with just one module left. Bob is looking to get more members involved with the testing and debugging process. Anyone interested in participating should contact him at rabsolutions@gmail.com.

The goal is to have a draft of the Working Party paper done by May 2010 and then work with the CAS to fine tune it and have the model presented at CLRS. They also plan to hold a Call Paper Program soliciting enhancements similar to the current DRM Call Paper.

New Working Parties

Two new Working Parties have formed under the Dynamic Risk Modeling Committee: The Economic Capital Model Working Party and the DRM Handbook Working Party.

New committee member Sholom Feldblum is leading the effort for the Economic Capital Model in developing a stochastic, principles-based economic capital model that meets Solvency II objectives and can be used by insurers, rating agencies, and regulators for solvency monitoring. The group has recently been approved as an official Working Party with Sam Gutterman co-chairing along with Sholom.

The DRM Handbook Working Party has been reinstated to complete Chapters 6 and 7 on pricing and reserving. Chris Diamantoukos and Barry Zurbuchen are chairing the Working Party which has fourteen members.

Both Working Parties will begin holding meetings in early 2010.