

Thriving on Change

16th

**General
Insurance
Seminar**



9-12th Nov 2008
Hyatt Regency Coolum

A View from North America Property & Casualty (General Insurance) Issues of Note

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Roadmap

- Overview of the structure of the actuarial profession in North America and the CAS
- CAS efforts in a few areas
- Some issues affecting North American actuaries
 - Natural
 - Regulation
 - The cycle and competition
 - Man made
 - Credit crisis
 - Accounting changes, etc.
- Ways to work together
- CRUSAP report (time permitting)
- Q&A



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Australian & New Zealand Actuarial Organisations

- Institute of Actuaries of Australia
- New Zealand Society of Actuaries



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North American Based Actuarial Organisations

- Canadian Institute of Actuaries
- American Academy of Actuaries – public interface for US actuarial profession
- Learned societies
 - Casualty Actuarial Society (general insurance, non-life)
 - Society of Actuaries (life, health, superannuation)
- Conference of Consulting Actuaries
- American Association of Pension Professionals and Actuaries
- Colegio Nacional de Actuarios
- Asociacion Mexicana de Actuarios Consultores
- Asociacion Mexicana de Actuarios



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Casualty Actuarial Society (CAS)

- Focuses on property & casualty (general insurance, non-life) actuarial science
- Qualifies candidates primarily through examination with two levels of membership, currently
 - Associate (ACAS ~ 1,500) educational requirements are
 - Three (3) Validation by Educational Experience (VEE) courses
 - Seven (7) timed and written examinations, generally three to four hours
 - Completion of professionalism course
 - Fellow (FCAS ~ 3,000) requires ACAS plus two (2) additional four-hour examinations
- Conducts research and provides professional education for its members
- Significant increase in monetary commitment to research



CAS Governance

- Policy set by a board of directors with twelve (12) elected directors, up to three (3) appointed directors, plus the President, President-Elect and board chair (immediate Past President)
- Policy carried out by the Executive Council composed of the President, President-Elect, Chief Staff Officer, and seven (7) Vice Presidents
 - Administration
 - Admissions
 - Enterprise Risk Management
 - International
 - Marketing & Communication
 - Professional Education
 - Research & Development
- Much work carried out by standing committees, task forces, and working parties reporting to the board or one of the Vice Presidents



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International

- CAS is an international organisation
- First half of Centennial Goal is “The CAS will be recognized globally as a leading resource in educating casualty actuaries and conducting research in casualty actuarial science.”
- About 7% of CAS members are outside of US and Canada
- CAS has separate “nation specific” Associate level examinations for Canada and US. Exploring one for Taiwan as well
- CAS has joined in the Singapore professionalism course
- CAS has participation in CAS committees and working parties from non-members outside of North America
- CAS publications have truly international authorship



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Enterprise Risk Management

- ERM is a major focus of the CAS
- Second half of Centennial Goal is “CAS members will advance their expertise in pricing, reserving and capital modeling, and leverage their skills in risk analysis to become recognized as experts in the evaluation of enterprise risks, particularly for the property and casualty insurance industry.”
- CAS is a sponsor of ERM-II
- CAS is working with IAAust and others on the treaty on a global ERM credential
- CAS also considering its own ERM credential, likely to have higher educational requirements than ACAS
- SoA has CERA at Associate (ASA) level



A Digression – Regulation of General Insurance in the US

- By the individual states (51 jurisdictions)
- All states require statements of actuarial opinion whether booked reserves “make reasonable provision” for liabilities or not
- Rate regulation varies, some very rigorous with prior approval, others less intensive
- Except for flood program residual market handled at state level
- States have guarantee funds with limited coverage to insureds in case of insurer failure
- Within limits can aggregate data from multiple insurers



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Some Issues of Note

- **Breaking News**
 - Troubles in US financial markets
 - Impact of recent volatility on asset models
 - Potential E&O/D&O issues?
 - Impact on mortgage and guaranty coverage
- **The Cycle**
 - Market softening
 - Downward pressure on reserves to maintain profitability
 - Possibly effects on loss development (see GIRO work)
 - In last soft market criticism of actuaries for deficient reserves



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Flood

- Coverage for damage done by rising water is excluded from homeowners (household) insurance
- Separate federal insurance program with coverage required to obtain and maintain mortgages in certain regions, identified by flood maps
- Maximum coverage limited (USD 250,000 for residential policies)
- Not all flood-prone properties eligible
- Determining flood vs wind damage with coverage for these perils in different policies is sometimes difficult and contentious
- Some discussion of expanding the flood program – opportunity for actuarial insight



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Other Natural Disasters

- Earthquake
 - Now generally excluded from homeowners coverage
 - Most notable exposure California, though largest earthquake in Continental US was in Missouri (near the center of the country)
 - California requires offer of EQ coverage but may be from California Earthquake Authority (CEA), a monoline EQ writer
- Wind (hurricane)
 - Coverage included in homeowners policy
 - Problems increasing as population density along the coast (in hurricane-prone areas) increases
 - Affordability issues increase political profile and regulatory scrutiny
 - Increased importance of models and hence interest in their accuracy
 - Again, opportunities for actuaries



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Other Natural Disasters

- Wildfires
 - Largely more localised an issue than hurricane or flood, largely in the Western US, particularly California
 - Often brush areas being rural havens amidst urban sprawl draw high value residences
 - In California the residual market (FAIR Plan) provides basic fire coverage, insurers often provide “wrap” policies
 - Experience shared in the voluntary market
 - Underwriting restrictions may make coverage difficult to obtain
- There are discussions of expanding federal flood program to include EQ and wind – a controversial proposal
- Again opportunities for actuarial insight to inform discussions



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Pricing and Underwriting

- Competition has led to more sophisticated underwriting
 - Predictive modeling
 - Data mining
- Credit score seems to have considerable predictive power
- Thought by some to burden the economically disadvantaged
- Regulatory scrutiny and action to preserve affordability
- Challenge to actuarial supremacy in ratemaking by “quants” experienced in data mining and predictive modeling
- CAS has an annual predictive modeling seminar (now combined in the new Ratemaking and Product Management Seminar)



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Accounting Changes

- IFRS on the horizon in Europe
- US GAAP scheduled to be replaced in the near future
- A fundamental change in interpretation of liabilities from undiscounted “management’s best estimate” to
 - Present value
 - Of probability weighted expected value
 - Plus a risk margin
- Unknown (at present) impact on statutory accounting and statutory statements of actuarial opinion



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Actuarial Technical Excellence

- Increasing demand for clearer discussion and evaluation in uncertainty – distribution of outcomes
- Methods still evolving
- To a large extent absent from current syllabus of examinations, definitely missing for those passing exams earlier
- Increased professional qualification requirements particularly with regards to continuing professional education
- A number of standards of practice have raised the bar in some areas of practice
- Concern actuaries may be losing ground to “quants” in traditional actuarial areas (reserves, valuation, rates) and behind in ERM space



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Relationship with Academia

- CAS R&D has, to a very large extent been done by practicing actuaries
- Availability of “real data” often key to understanding issues and practical problems faced by casualty actuaries
 - Attempts to obtain real data not yet successful
 - A working party has developed a synthetic data set, programming in APL, looking for Vbasic or R implementation (funded RFP)
- CAS has long had a very practical emphasis in its research
- Perception that the problems dealt with by academics not of use to practicing actuaries
- Research funded through grants, some other specific proposal projects, no continuing funding to specific universities



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Increased Cooperation

- CAS is quite interested in areas of closer cooperation
 - Standing invitation to IAAust members to join in standing R&D committees and working parties
 - Increased profile for IAAust publications within the Database of Actuarial Research and Education (D.A.R.E.). This database currently contains all CAS publications, nearly all *ASTIN Bulletin* (may be an embargo of most recent year) and some other publications
- Interest in joint R&D projects that make sense
- We are always looking for ways to improve our Professional Education and have “rerun” selected sessions from such conferences as the ASTIN Colloquium and the American Risk and Insurance Association (ARIA). Can go the other way too.



Critical Review of the US Actuarial Profession (CRUSAP)

- Independent body to review the actuarial profession in the US
- Presented report in 2006 (<http://www.crusap.net/pdf/final.pdf>)
- CAS board reviewed the report and set out an action plan in dealing with a number of issues raised
 - A large part of the report deals with public interface issues, and thus in the domain of the American Academy of Actuaries
 - The CAS, focusing on research and education has efforts underway
 - To enhance the public's understanding of actuarial estimates
 - To refine actuarial methodologies
 - To improve transparency of actuarial estimates and to increase the visibility of the appointed actuary
- Among other items the report recommends the “consolidation of the US actuarial profession”