A Recent History of the Statement of Actuarial
Opinion, Solvency Regulation and the Actuaria
Profession in the United States

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Outline of Presentation

1970 Emergence of Actuarial Profession

1000 Insolvencies

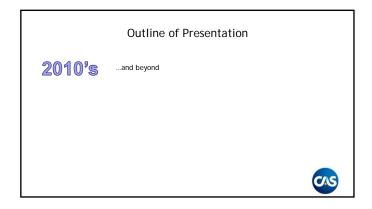


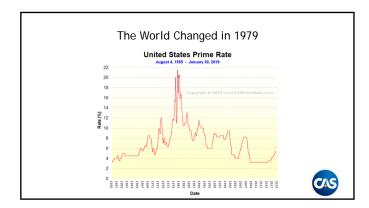
Outline of Presentation

1990 Challenges to Actuarial Profession

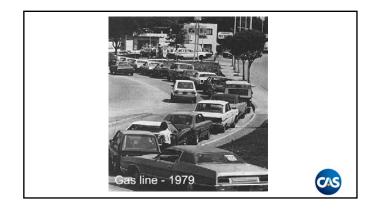
2000 S A Crisis of Confidence















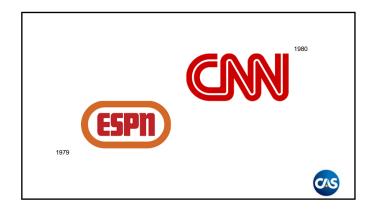




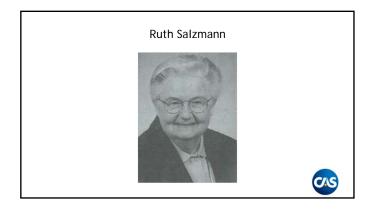


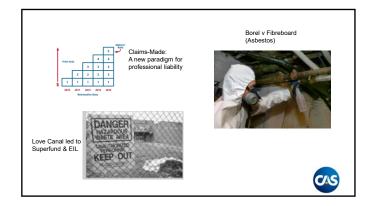


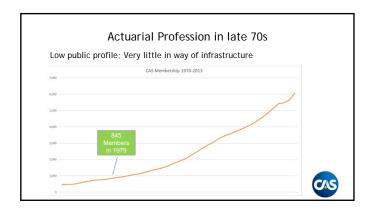












	Actuarial Profession in early 80s					
4000						
1980	NAIC establishes first formal SAO requirement					
1981	AAA publishes first ever Qualification Standards for preparing	g SAOs	•			
			-			
		CAS	•			
			•			
	New SAO Requirement from NAIC		-			
• Must be appr	oved by individual jurisdictions		_			
	O signer must be "qualified loss reserve specialist" rowth in accounting firms for compliance		_			
1988	State of MN first to require SAO be signed by actuary					
1991	NAIC SAO requirements become widely adopted					
	and for casualty actuaries		-	 	 	
· Greater delli	and for casaarty actuatios	CAG	-			

Actuarial Profession in mid 80s

- Confederation of 6 organizations:
- Casualty Actuarial Society (CAS)
 Only 1 FT employee and a PT meeting planner
- Society of Actuaries (SOA)
- American Society of Pension Actuaries (ASPA)
- Conference of Actuaries in Public Practice (CAPP)
- Canadian Institute of Actuaries (CIA)
- American Academy of Actuaries (AAA)



Developments at NAIC

1985 Casualty Actuarial Task Force (CATF) formed - now known as CASTF

- Life/Health Actuarial Task Force (LHATF)
 - Now know as LATF
- · Liaison between actuarial profession and regulatory community



Strengthening Actuarial Profession

1987 Council of Presidents (COP) formed task force

- The "a priori" expectations of member organizations AAA would:
 - seek public recognition of the profession
- participate in discussions of public issues on behalf of the profession, substantially independent of the other organizations
- Unfortunately, no coordinated effort from the six organizations to work together to strengthen AAA



COP Task Force Key Findings

- AAA should be reorganized to improve effectiveness of its public interface;
- Member organizations should work toward having all members become members of the AAA and/or CIA; and
- The AAA/CIA would be sole U.S./Canadian actuarial organizations to establish standards of practice and conduct disciplinary procedure



What a Surprise!

Jobs Rated Almanac (1st Ed.) lists "Actuary" as #1 profession in U.S.

• Banner headlines across country elevated the actuarial profession quite unexpectedly



A Flurry of Activity in late 80s

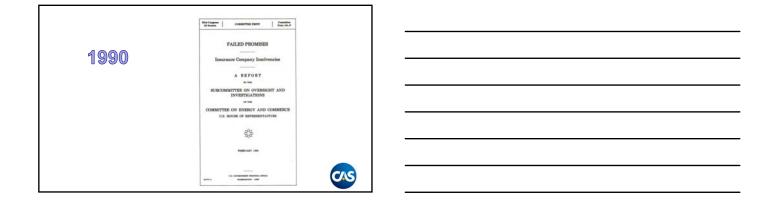
- · ASB established
- CAS promulgates Statement of Principles on Ratemaking, Reserving and Valuation
- AAA issues Qualification Standards for signing SAOs
- ASOP 9 (Documentation and Disclosure in P/C Communications) adopted
- NAIC finishes overhaul of Schedule P reporting



Insolvencies hit P/C Industry

- Mission
- Integrity
- Transit Casualty





Dingell Report

"Incredibly, the General Accounting Office (GAO) found that 35 states have not implemented the independent audit recommendations, and 33 states do not require actuarial certification of reserve adequacy"

(U.S. House of Representatives, 1990, p. 71).



	Immediately following release of Dingell Report
3	studies on insolvencies commissioned:
1990	Study of Insurance Company Insolvencies from 1969-1987 to Measure the Effectiveness of Casualty Loss Reserve Opinion (AAA)
1991	Comprehensive study of 372 P/C insolvencies (A. M. Best)
1992	Study of Property-Liability Insurance Company Insolvencies During 1988-1990 with Regards to Statements of Actuarial Opinion (AAA)

Findings

- Most common causes of insolvency:
 - Under-reserving (58% of insolvencies)
 - Mismanagement (41% of insolvencies)
- In 81 of 105 cases, there was no SAO
- Of SAOs rendered, only 20% by CAS member
- Of insolvent companies, 4 of 7 SAOs were qualified in some manner



Actions in 1991 - 1992

1991

SAO requirements promulgated for all domestic P/C insurance companies

1992

 $\ensuremath{\mathsf{COPLFR}}$ draft guidance to assist members in preparing SAO in compliance with new regulations

1992

ABCD formed to provide counseling to members and to make disciplinary recommendations to sponsoring North American professional organizations (excl. CIA)

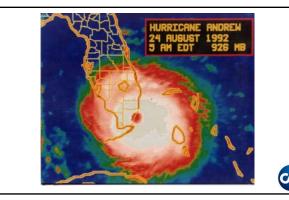


Activity in 1992 - 93

- ASOP 20 Discounting
- ASOP 21 Responsibility to Auditor
- ASOP 23 Data Quality

and then on August 24, 1992 ...





Asbestos & Environmental

- Prior to 1994, most commercial carriers did not establish an accrual for A&E claims liabilities
- Per FAS 5, liabilities were so uncertain as to not be "reasonably determinable"
- A. M. Best publishes seminal study estimating industry liabilities of \$260B
- Concept of "Survival Ratio" became part of P/C lexicon



Actuaries to the Rescue

- Consultants paved way in developing expertise in quantifying extent of A&E claims liabilities
 - Raji Bhagavatula
- Amy Bouska
- Many others

1995

· New footnote disclosures

1995 2016

- Industry posted \$29 billion in A&E net liabilities at year-end
 \$128 billion subsequent development through year-end

 \bullet A. M. Best estimates another \$13 billion is needed



Risk Based Capital

Prior to 1994, regulators had no mechanism to provide objective evidence of need for rehabilitation or liquidation; regulator actions often ended up in litigation

RBC Ratio	Regulatory Status
< 2.0	Company Action Level
< 1.5	Regulatory Action Level
< 1.0	Authorized Control Level
< 0.7	Mandatory Control Level



NAIC / CATF

Regulators considering changes to SAO in 1995-96 $\,$

Started an evolutionary process that continues to this day

Public perception and credibility of actuaries was elevated markedly



Changes to SAO in 1996

- Must opine on reserves net of Schedule P penalty
- New disclosures regarding discounting
- Tabular vs. Non-tabular
- \bullet A significant development in London market and Lloyds had some impact as well
- · Formation of Equitas



Changes to SAO in 1997

- Disclosures regarding:
 - held A&E reserves
- company practice for setting accrual for underwriting pools & associations
- significant types of losses and major risk factors that may materially

Construction defect Cumulative injury Other mass torts

High excess layers Large deductible WC

Tobacco Medical malpractice legislative issues Recently enacted legislation New products and/or new markets
Coverage disputes



Changes to SAO in 1997 (cont.)

- Comments required on variety of issues
 - Discounting
 - Salvage and subrogation recoveries
 - Underwriting pools and associations
 - Retroactive reinsurance
 - Financial reinsurance
 - Reinsurance collectability



Changes to SAO in 1998

- Scope expanded to include UPR on long duration contracts
- Codification changes in statutory accounting
- ALAE/ULAE changed to DCC/A&O
- Schedule P penalty removed
- Management must book best estimate
- PDR accrual required
- \bullet Impact of codification may affect approach to quantifying liability for LAE
- COPLFR guidance recommended disclosures regarding Y2K



Changes to SAO in 1999

- Scope of SAO expanded to include extended reporting reserves
- · Regulatory Guidance memo introduced for first time
- Interested in viewpoint of AA on Y2K



ASOP 36 adopted in 2000

- 5 (and only 5) types of Opinions →
- Reasonable Redundant/Excessive Deficient/Inadequate No Opinion
- Reserve ranges vs. Point estimates
- Materiality
- RMAD disclosures
- Evaluation of risk transfer elements in reinsurance contracts
- Of wide interest, a formal hearing was conducted after 3rd Exposure Draft



More Insolvencies in 2000

- Superior National
- Reliance
- Legion
- Actuaries were garnering adverse notoriety on front pages of trade publications



SAO Changes in 2001

- Scope expanded to include retroactive reinsurance assumed reserves
- New disclosure: manner in which report presented to BOD
- New disclosures: reliance on another actuary
- 9/11
- · Disclosure regarding impact of terrorist attacks



2002

- No substantive changes to SAO
- · Sarbanes-Oxley (Sarbox) passes
- Process of setting loss reserves and actuaries' involvement was germane



A Crisis of Confidence Emerges in 2003

- Massive loss reserve developments at year-end 2002 (\$18 billion+)
 \$9 billion+ for "All Prior" accident years for GL/Products Occurrence
- S&P article "Insurance Actuaries A Crisis of Credibility"
 - "Actuaries are signing off on reserves that turn out to be wildly inaccurate"
 - "Whether by naïveté or knavery, the property/casualty industry's ongoing parade of reserving additions has undermined confidence in the estimates given by insurance actuaries"



Fitch Special Report

- "Property/Casualty Insurance Reserves at year-end 2002: Filling in the Hole Slowly"
 - -"In many recent cases, reserving shortfalls are attributable to a failure in the actuarial process, as opposed to purposeful 'cheating' on the part of management"
 - ... posted reserves by management are "wrong because current established actuarial processes are unable to assess ultimate loss costs with any reasonable degree of accuracy"
 - report acknowledged determining required loss reserves accurately "is among the most challenging tasks that property/casualty insurers face in conducting their operations, particularly in longer tail business segments"



Fitch Special Report (cont.)

- "reserving shortfalls had increasingly been the result simply of the actuaries being wrong, often to a significant degree"
- -"being wrong" results from "the tremendous challenges in predicting loss costs trends in a highly dynamic environment, especially when losses are linked to the tort system"
- "actuarial analyses are often too reliant on past experience to predict future losses, and that generally actuaries do a relatively poor job in predicting future trends not yet evident in historical loss patterns"



Actuarial Profession Responds

- CAS Task Force on Actuarial Credibility
- Morris Report (UK)
- Critical Review of the U.S. Actuarial Profession (CRUSAP) formed by AAA





in a Changing World

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Extensive Changes to SAO in 2004

- Explicit RMAD disclosure Yes/No
- Disclosure of:
- materiality standard used for RMAD disclosure
- name/affiliation of person at company Appointed Actuary relied on for data
- difference between actuary's indicated reserves and company held reserves in the Actuarial Report
- reconciliation of data used in actuarial analysis to Schedule P
- Extended comments on unusual IRIS test ratios
- New CATF Regulatory Guidance memo
- New Data Testing Requirement for Auditors
- New SAO for CA WC Schedule P



SAO Changes in 2005

- AOS introduced
- Process for changing Appointed Actuary formalized
- CEO and CFO attestation required for risk transfer in reinsurance contracts
- COPLFR published practice note on risk transfer
- ERD advanced as alternative to 10/10 rule



Casualty Actuarial Profession in 2005

- Public profile had been elevated considerably
- Now enduring tarnish on that reputation
- Focus turned inward, in response to criticisms
- Focus not limited to U.S.



Morris Report - March 2005

- Response by UK govt. to independently review the actuarial profession
- Identified several serious problems:
- Insularity in methods and approach;
- Insufficient emphasis on uncertainties inherent in long-term financial planning;
- Insufficient transparency in actuarial advice;
- Concern about designating certain roles to actuaries; and
- Perception that actuarial profession had not properly responded to major changes in both demographics or economic conditions in the U.K.



Morris Report

- Found that competition and choice were sufficient for actuarial services
- Found an "understanding gap" for actuarial services between users and advisers
- \bullet Asserted the profession was "at a crossroads"



Morris Report Recommendations

- Specific to UK actuarial profession:
 - A new Actuarial Standards Board;
 - Oversight of compliance with technical and ethical standards;
 - New arrangements for actuarial training and continuing professional development:
 - $\boldsymbol{\mathsf{-}}\,\mathsf{More}$ effective scrutiny of actuarial advice; and
 - Clearer lines of accountability of actuaries to regulators, to the profession and to clients and employers
- Findings supported by both profession and regulators



CAS Task Force on Actuarial Credibility (May 2005)

- Recommendations to enhance:
 - transparency of actuarial findings and disclosures;
 - public's understanding of actuarial estimates;
 - transparency of actuarial disclosures; and
- quality of corporate governance by property/casualty insurers



AAA CRUSAP Report (Dec 2006) Recommendations

- Encourage individual actuaries to gain sufficient knowledge to speak out on actuarial elements of major public issues
- Require active members of actuarial profession to meet consistent continuing education requirements
- Sponsor research to enhance ability of profession to meet actuarial needs of the public
- Establish joint disciplinary process for the profession, independent of individual actuarial organizations
- Require training and demonstrated proficiency in communications skills as part of basic education and qualification of actuaries
- Establish consolidation of U.S. actuarial profession as a goal of the profession



AAA Reserve Opinion Seminar

- "Boot Camp" established near year-end 2005 in response to CAS Task Force recommendations
- Assist practitioners on preparation and delivery of SAOs
- Similar sessions continue to this day and are widely viewed as the best educational seminar offered for Appointed Actuaries



SAO Changes in 2006

- New emphasis on INT 02-21 as regards accrual for prepaid LAE
- Had been part of statutory accounting for many years, but auditors typically did not deem it material
- Communicated via Regulatory Guidance Memo
- Complete re-write of SAO Instructions for Title companies



SAO Changes in 2007

- Electronic SAO filing required
- New Exhibit B disclosures:
- Name of appointed actuary
- Relationship to Company (employee/consultant)
- Credentials
- Identification of type of Opinion (R, I, E, Q or N)
- · ASOP 43 adopted



Developments in 2008

- AAA approved new Qualification Standards for Actuaries issuing Statements of Actuarial Opinion
- Definition of Actuarial Opinion broadened
- Continuing Education requirements increased to 30 hours annually pertinent to relevant areas actuary opines upon
- 6 hours organized activity
- Specific Qualification standard 15 hours must relate to materials specific to SAO
- At least 6 of those 15 hours must involve interaction with outside actuaries or other professionals



SAO Changes in 2010

- Clarification that disclosures in Schedule P Interrogatories should relate to medical professional liability only
- $\bullet\,$ Change to Note 30 disclose yes/no as to PDR and date of last review
- Regulatory Guidance Memo
 - Expectations regarding Schedule P reconciliation
 - Must identify person (officer) at Company relied upon for data
- \bullet COPLFR "An Overview for Audit Committee Members of P/C Insurers: Effective Use of Actuarial Expertise'



SAO Changes in 2011

- Revised ASOP 36 adopted
- · New disclosures required:
- Intended users and intended purpose of SAO;
- Stated basis of reserve presentation;
- Whether any material assumption or method was prescribed by law; and
- Whether actuary disclaims responsibility for any material assumption or method that originated from another source



Regulatory Concerns at year-end 2011

- Repeal of ASOP 9 (precursor to ASOP 41)
- Regulatory Guidance Memo suggested documentation:
- Expected Loss Ratios
- Actuarial Judgment
- Changes since prior year
- Describe role in advising Company regarding carried reserves
- Manner in which Actuarial Report is communicated to BOD
- COPLFR provides guidance on Review Date, Accounting Date and Reliance on Others



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2013

SAO Changes in 2012 and 2013
New disclosures - Change in AA
Suggested Actuarial Report define BOD as intended user
Regulatory Guidance expectations for Actuarial Report - Detailed reconciliation of actuarial data to Schedule P - Changes since prior year should include both direct & net

Move discussion of risk factors to Relevant Comments section of SAO to precede RMAD disclosure

 $2018 \,$ Long Duration Contracts definition split between A&H and P&C; additional item on SAO Exhibit B

Changes in 2014 - 2018

Other changes explanatory in nature, not substantive $% \left(1\right) =\left(1\right) \left(1\right)$



Solvency Modernization Initiative (SMI)

- Concurrent with SAO changes in 2008 and subsequent years, the NAIC was pursuing SMI
- Study precipitated by international developments
 - Insurance Core Principle 16 from IAIS
- Insurance Contracts proposal from IFRS and Solvency II
- Intent of SMI
 - Transparency
 - Policyholder considerations for information
 - Disclosure



Enterprise Risk Management

- Future solvency must include evaluation of ERM
- Capital Requirements
- Governance
- Group Supervision
- Reinsurance
- Move towards Own Risk & Solvency Assessment (ORSA) approach



Current Status of CAS in 2019 New Brand implemented in 2013 OAS Member Growth 2008-2018 OAS Member Growth 2008-2

Future of SAO & Solvency Regulation



How might the Statement of Actuarial Opinion Change?

- Expansion to include opinion on the Unearned Premium Reserves?

 —By line and in the aggregate?
- More robust discussions of risk?
 - Line of business/segment adequacy and outlook?
 - Quantification within the risk disclosures?
- Adequacy of reserves vs. reasonableness of reserves?
- Explicit discussion of linkage between pricing assumptions and reserving assumptions?



New Opinions?

- Actuarial Opinion on the ORSA Report? (Confidentiality, of course)
 - Are actuaries sufficiently qualified?
- Actuarial Opinion on the Adequacy of Surplus?
 - Do you have sufficient malpractice insurance?
- Actuarial Opinion on the Reasonableness of Assumptions underlying the Capital Model within ORSA?



Other Issues?

- Independence?
- Mandatory Peer Review?
- Mandatory Periodic Change in Appointed Actuary every ____ years?



Q&A	
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