

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

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### **Abstract:**

*The first property/casualty Statement of Actuarial Opinion (SAO) requirement related to loss reserving was adopted by the NAIC in 1980, which led to a surge in the demand for casualty actuaries generally and consulting actuaries in particular. The developments in the SAO affecting the actuarial profession have been astounding when viewed in retrospect.*

*This paper provides a retrospective history of the evolution of the SAO and solvency regulation in the United States, providing commentary and perspective on how actuaries have been challenged and contributed to that process. In addition, the value added by actuaries to the insurance industry, regulators and the general public is highlighted. We begin the journey in 1979.*

## 1. Introduction

The world changed in 1979 and hasn't been the same since. The property/casualty insurance industry was altered forever as well, and that is the focus of this paper.

In the late 70s and early 80s, households in the United States had to endure rampant inflation and high interest rates. In addition, the newly formed Organization of Petroleum Exporting Countries (OPEC) cartel in the Middle East imposed quotas on oil and gas production, leading to oil shortages, rationing and gas lines. At the same time, the personal computer was introduced and began making inroads in the business world. In November 1979, the American Embassy in Iran was overrun and 52 employees and diplomats were taken hostage by a new clerical regime. Other significant events of 1979 included the invasion of Afghanistan by the U.S.S.R., an accident at the Three Mile Island nuclear power plant, the first launch of the space shuttle (Columbia), the Camp David Accords establishing a peace agreement between Egypt and Israel and the introduction of a new cable network called ESPN. To top it all off, snow was seen in the Sahara desert for the first time in recorded history (at the time).

During this same time period, the P/C insurance industry was rocked by the confluence of several developments that profoundly affected the way it did business. First, an environmental disaster at Love Canal (a neighborhood in Niagara Falls, New York) precipitated an awareness of significant pollution at dumpsites throughout the country and the United States Congress passed the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA,

or Superfund) in 1980, imposing retroactive liability on site owners for the cost of environmental cleanup and remediation. Second, a landmark decision in an asbestos case (Borel v. Fibreboard) upheld strict liability and provided precedents for thousands of product liability claims. This one case opened the floodgates for asbestos litigation in the years to follow. These two events triggered enormous financial challenges to the property/casualty insurance industry.

Third, cash flow underwriting was rampant in the industry, as high interest rates led to lucrative investment returns; insurers jettisoned sound underwriting practices and a focus on new business production dominated insurance company boardrooms. Fourth, the medical malpractice crisis of the mid to late 70s led to the emergence of claims-made policies and an entirely new paradigm for the sale, pricing and administration of these new insurance products.

Lastly, the Casualty Actuarial Society (CAS) elected the first female President in its history (Ruth Salzmänn). These developments and subsequent events reshaped the P/C insurance industry and the actuarial profession in a profound way.

## 2. Actuarial Profession in 1979

The actuarial profession in 1979 was nothing like it is today. The Casualty Actuarial Society had only 845 members, compared with 7,587 in 2017. The broader actuarial profession had a low public profile and little in the way of infrastructure (Casualty Actuarial Society, 2000, p. 36).

Consider that there was no Actuarial Standards Board (ASB), no Actuarial Standards of Practice (ASOP) and no Actuarial Board for Counseling and Discipline (ABCD) in place at the time.

The first formal statement of loss reserve opinion requirement was adopted in the National Association of Insurance Commissioners (NAIC) Plenary Session in June 1980, applicable after approval by individual states starting with statements as of December 31, 1980. This requirement led to rapid growth in casualty actuarial consulting, especially in accounting firms. Qualification standards for preparing such opinions were promulgated by the American Academy of Actuaries (AAA) in 1981.

At the time, there were no Statements of Principles on Ratemaking, Reserving or Valuation (those were adopted in May 1988). There was, however, an Interim Actuarial Standards Board (IASB) established in 1985 to assess whether the concepts and procedures of the proposed ASB were valid and workable.

While the NAIC had a requirement in place (in a few jurisdictions) that companies provide Statements of Actuarial Opinion (SAO), it was not widely adopted. It wasn't until 1991 that SAOs were required to be filed by all domestic property/casualty insurance companies.

In the early 80s, a few states required an SAO by a "qualified loss reserve specialist" but more than half the opinions were being signed by non-actuaries. In 1988, the state of Minnesota was the first to require the SAO be provided by an independent actuary.

In the mid-80s, the actuarial profession in North America was a confederation of six organizations:

- Casualty Actuarial Society (CAS);
- Society of Actuaries (SOA);
- American Society of Pension Actuaries (ASPA);
- Conference of Actuaries in Public Practice (CAPP);
- Canadian Institute of Actuaries (CIA); and,
- American Academy of Actuaries (AAA).

These individual organizations constituted the core of the actuarial profession. The CAS office consisted of one part-time meeting planner and two employees.

The Casualty Actuarial Task Force (CATF) had just been established by the NAIC in 1985, providing a direct outlet for communication between casualty actuaries and state regulators.

### 3. Actuarial Profession Emerges

In June 1987, the Council of Presidents of the six North American professional organizations formed a Task Force on Strengthening the Actuarial Profession (Task Force on Strengthening the Actuarial Profession, 1988, p. 1). The charge of the Task Force was to explore how to strengthen the actuarial profession and to consider whether restructuring would be helpful in achieving that goal. In short, the leadership of these organizations recognized that much work had to be done if the actuarial profession was to be accepted and recognized fully as a profession. There was consensus at the time that the profession was small in size and did not have a significant impact on society as a whole.

A key discovery of the Task Force related to the manner in which the AAA operated. Formed in the early 60s, the AAA was founded as an independent parallel organization by the CAS, SOA and CAPP. There was an expectation by these three organizations that the AAA would:

- Seek public recognition of the profession, and
  
- Participate in discussions of public issues on behalf of the profession, substantially independent of the other organizations.

Unfortunately, there was no coordinated effort by the three organizations to provide a mutually supportive approach to the AAA to accomplish these goals. Individual members of the

three founding societies were more inwardly loyal to their individual organizations than to the AAA and received more educational support from the credentialing organization to which they belonged. The professionalism and public interface responsibilities were not areas of focus. Only as members matured did they come to appreciate the public interface role of the AAA. So in its early years, the AAA was not active in speaking out on a broad range of public issues.

The Task Force report stimulated many changes to the profession and focused heavily on the AAA. In particular, the recommendations included:

- The AAA should be reorganized to improve the effectiveness of its public interface;
- Member organizations should work toward having all members become members of the AAA and/or CIA; and
- The AAA and CIA would be the sole actuarial organizations in the U.S. and Canada, respectively, to establish standards of practice and conduct disciplinary procedures (Task Force on Strengthening the Actuarial Profession, 1988, pp. 2-3).

Shortly thereafter, the profession began upgrading its infrastructure and the actuarial profession grew in prominence. Much progress came by design, but the image of the profession was elevated quite suddenly in November 1988 when the first issue of the Jobs Rated Almanac identified “Actuary” as the #1 profession in the United States (Los Angeles Times, 1988, pp. 1-

2). A banner headline in the USA Today provided a huge boost to the stature of the actuarial profession.

In the next two years, the flurry of activity included:

- The ASB was established;
- The CAS promulgated Statement of Principles on Ratemaking, Reserving and Valuation;
- The AAA issued Qualification Standards for those signing SAOs;
- ASOP 9 (Documentation and Disclosure in Property and Casualty Insurance Ratemaking, Loss Reserving, and Valuations) was adopted, incorporating the Statements of Principles formally into a Standard of Practice; and,
- The NAIC finished an overhaul of the Schedule P reporting format.

Financial reporting in the Annual Statement expanded the five to six years of development for long-tail lines to 10 years. The lines of business were expanded:

- Auto liability was split into two segments - private passenger and commercial;



- Multiple peril lines were split into homeowners/farmowners multiple peril (HMP/FMP) and commercial multiple peril (CMP);
- Other Liability was split into two segments - general liability and products liability;
- Data for the medical malpractice, general liability and products liability were split between claims-made versus occurrence; and,
- Reinsurance lines were expanded into four categories, named Reinsurance A through D.

The former short-tail lines in Schedule O were incorporated into Schedule P. The presentation of data was expanded from net only to direct versus ceded. Disclosures for tabular versus non-tabular discount and salvage/subrogation was added. Lastly, allocated loss adjustment expenses (ALAE) was split from unallocated loss adjustment expenses (ULAE).

These changes enabled actuaries to prepare more detailed analysis using just the Schedule P data reported in the Annual Statement. Prior analysis of the Annual Statement data was fraught with limitations.

#### 4. The Dingell Report

Just when the actuarial profession was gaining some momentum in the 80s, a seminal event in the history of insurance regulation in the U.S. occurred. Representative John Dingell, Chair of the Subcommittee on Oversight and Investigations of the Committee on Energy and Commerce issued the infamous “Failed Promises” report (i.e., the Dingell Report) in February 1990. High-profile insolvencies in the property/casualty insurance market in 1986 – Mission, Transit Casualty and Integrity among them – had caught the attention of politicians in Washington, D.C.

Hearings into the facts of the insolvencies and factors contributing to such revealed that

*“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).

The report was a shot across the bow to state regulators clearly implying the job of solvency monitoring by the individual states needed improvement.

Immediately following the Dingell Report, there were three separate studies of property/casualty insurance company insolvencies. The first of these three studies was “Study of Insurance Company Insolvencies from 1969-1987 to Measure the Effectiveness of Casualty

Loss Reserve Opinion,” published in September 1990 by the AAA (American Academy of Actuaries, 1990, p. 6). The primary conclusions of this study were:

1. The most common cause of insolvency was under-reserving. This phenomenon was noted in 58% of the insolvencies for which specific causes were identified.
2. The second most common cause of insolvency was mismanagement (identified in 41% of the responses). The study noted many of the loss reserve opinions for companies subsequently declared insolvent were “qualified” in some manner.
3. In the majority of insolvencies studied (81 of 105 cases), no loss reserve opinion was rendered (American Academy of Actuaries, 1990, pp. 2-3; 166-167).

In June 1991, the A. M. Best organization released its initial comprehensive study of 372 property/casualty insurance company insolvencies from 1969-1990 (A.M. Best, 1991, p. 10).

The third study was issued by the AAA in September 1992, titled “*Study of Property-Liability Insurance Company Insolvencies During 1988-1990 with Regards to Statements of Actuarial Opinion* (American Academy of Actuaries, 2010, p. 2). The primary conclusions of this study were:

1. Under-reserving was noted in 62% of the insolvencies for which specific causes were identified.
2. Mismanagement was the second most common cause of insolvency (identified in 36% of the responses).
3. Of the opinions rendered, only 20% were rendered by credentialed actuaries.
4. Of the loss reserve opinions for companies subsequently declared insolvent, 4 of 7 were qualified or conditioned in some manner (American Academy of Actuaries, 1990, pp. 2-3; 166-167).

Also in 1991, the NAIC promulgated SAO requirements of all domestic property/casualty insurance companies. The following year, the Committee on Property & Liability Financial Reporting (COPLFR) of the AAA prepared draft guidance and illustrative wording to assist members in preparing the SAO document in order to comply with the new regulation.

Also in 1992, the Actuarial Board for Counseling and Discipline (ABCD) was formed to provide counseling to members and make disciplinary recommendations to its sponsoring North American professional organizations (except for the CIA).

Several more ASOPs involving casualty actuaries were approved in 1992 and 1993:

- ASOP 20 – Discounting
- ASOP 21 – Responsibility to Auditor

## 5. Hurricane Andrew

During this same time frame, a pivotal moment in the property/casualty insurance industry occurred on August 24, 1992 when Hurricane Andrew made landfall in Homestead, Florida. A Category 5 storm, Andrew caused more insured damage (\$15.5 billion in 1992 dollars) than any other natural disaster in the United States up until that time.

Insurers were not prepared for the extensive damage caused by this massive storm and came to two realizations. First, exposure concentration along coastal areas was a risk factor that needed immediate attention. Second, the quantification of catastrophe risk needed to be upgraded significantly. Regulators realized that solvency regulation would need to be broadened considerably to account for such mega events.

Hurricane Andrew fundamentally transformed actuarial pricing models by exposing the inadequacy of simple catastrophe loadings in property rates. Insurance companies concluded that their solvency was intricately tied to managing exposure concentrations, especially in coastal areas.

## 6. Asbestos & Environmental

Another formative event in the regulation of property/casualty insurers occurred in 1994 when A. M. Best released its initial study of asbestos and environmental (A&E) claims exposure in the U.S. Prior to this study, most commercial carriers deemed the quantification of such claims liabilities as so uncertain that they were not “reasonably determinable” per requirements of Financial Accounting Standards (FAS) 5. The A. M. Best study estimated the outstanding claims liability for the industry at \$260 billion on a nominal basis. The best-case scenario was a net reserve addition of \$55 billion (A.M. Best, 1994, pp. 6-7). In the report, the concept of a survival ratio was advanced and commercial carriers concluded that massive reserve additions needed to be realized.

Actuaries played a prominent role in developing models to assess the extent of such A&E claims liabilities. The implications of A.M. Best’s A&E study were felt in 1995 as a new footnote disclosure of held loss and loss adjustment expenses (LAE) reserves for A&E (both gross and net) was required in the Annual Statement. At year-end 1995, the U.S. insurance industry had booked approximately \$29 billion of net A&E liabilities.

In retrospect, the amounts of net A&E losses realized through year-end 2016 is approximately \$128 billion and A. M. Best’s latest estimate is an additional accrual of \$13 billion. That is, the ultimate net liabilities are currently estimated at \$142 billion by A. M. Best (A.M. Best, 2017, p. 12).

## 7. Tax Reform Act and RBC

Two other significant changes impacting insurers, actuaries and solvency regulators were the Tax Reform Act of 1994 and the implementation of Risk Based Capital (RBC). The three primary provisions of the Tax Reform Act affecting actuaries were:

- Proration (taxation on a portion of otherwise tax-exempt income)
- Revenue offset (only 80% of change in unearned premium reserve [UPR] is deductible)
- Discounting of loss and LAE reserves for tax purposes

Given the after-tax impact on net income for insurers was much greater than before, actuaries needed to incorporate these provisions in models assessing total financial needs in rate filings.

The new RBC rules were a tangible response to the Dingell Report. They were designed not only to enhance solvency monitoring and regulation, but to provide regulators with a tool to order specific actions and/or put underperforming companies into rehabilitation or liquidation.

The RBC thresholds were set such that companies had to maintain surplus at or above a 2X multiple of RBC:

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

Prior to the promulgation of the RBC rules, regulators were often involved in litigation when trying to remediate underperforming companies. The model law implementing RBC provided regulators statutory authority to manage the solvency of domestic companies under their regulatory purview.

About this same time, regulators from the Casualty Actuarial Task Force (CATF) of the NAIC were recommending enhancements to the SAO. This began an evolutionary process that continues to this day. We note, however, that the major enhancements to the SAO occurred in a 12-year period between 1996 and 2007. During this timeframe, the public perception and credibility of actuaries was elevated markedly.

## 8. Changes in SAO Requirements

Beginning in 1996, actuaries were required to opine on the adequacy of held reserves excluding the Schedule P penalty (i.e., excess of statutory over statement reserves). There was also a new required disclosure in the SAO as regards discounting such that tabular versus non-tabular discounting was specified (American Academy of Actuaries, 1996, p. 2).



A significant development in the worldwide insurance industry in 1996 was the formation of Equitas, a facility designed to reinsure and run off liabilities from Lloyds' syndicates. The financial condition of Lloyds' syndicates in the mid-1990s was significantly impaired by a variety of factors including the degradation of the sudden and accidental clause in most commercial general liability policies by the courts regarding coverage for asbestos and environmental (A&E) exposure. The formation of Equitas allowed the consolidation of many claims and facilitated common defenses in order to reduce the amounts paid in defense costs.

#### 9. SAO Changes in 1997

Actuaries were required to make disclosures in the SAO as to held loss and LAE reserves for A&E exposure. Another new disclosure required actuaries to mention explicitly whether or not the company booked an accrual for the reporting lag related to underwriting pools and associations. Lastly, regulators specified the SAO should include disclosures and extended comments on significant types of losses and major risk factors that may materially affect reserves (American Academy of Actuaries, 1997, p. 2). A listing of potential types of such losses was presented in the Practice Note prepared by COPLFR (American Academy of Actuaries, 1997, pp. 24-25):

- Construction defect
- Cumulative injury
- Other mass torts

- High excess layers
- Large deductible workers compensation
- Recently enacted legislation
- Tobacco
- Medical malpractice legislative issues
- New products and/or new markets
- Coverage disputes

Opining actuaries were instructed to comment in the Scope section on each of several topics, describing the effect of each on loss or loss expense reserves. These topics included (American Academy of Actuaries, 1997, pp. 11, 13):

- Discounting
- Salvage and subrogation recoveries
- Underwriting pools and associations
- Retroactive reinsurance
- Financial reinsurance
- Reinsurance collectability

## 10. Changes in 1998

The most important changes to financial reporting in 1998 related to codification. Codification made a number of changes including:

- Definitions of LAE were changed from ALAE/ULAE to Defense and Cost-Containment/Adjusting & Other LAE (DCC/A&O);
- Schedule P penalty was removed;
- Management was instructed to book its “best estimate” of the accrual for unpaid claims liabilities both on a by-line basis as well as overall; and
- Statutory accounting rules now included a requirement for premium deficiency reserves.

Provisions of codification were not made effective until 2001.

The scope of the SAO was expanded in a material way by requiring actuaries for the first time to opine on the reasonableness of held UPR for long-duration contracts. This requirement applied to any policies other than financial guaranty, mortgage guaranty and surety where the contract term is thirteen months or longer, and the insurer can neither cancel the contract nor increase the premium (American Academy of Actuaries, 1999, p. 2).

Given the changes associated with codification, COPLFR added a new risk factor (the so-called Year 2000 [Y2K] disclosure) that opining actuaries should consider in the Relevant Comments section of the SAO (more discussion on that matter follows below) (American Academy of

Actuaries, 1999, p. 29). Also, COPLFR advised that the revised LAE definitions associated with codification may create a material change in actuarial assumptions or methods that would need to be disclosed (American Academy of Actuaries, 1999, p. 2).

## 11. Changes in 1999

Two new requirements were added in 1999 (American Academy of Actuaries, 1999, p. 2). The most significant change was an expansion in the scope of the SAO to include an opinion on extended LAE reserves relating to certain claims-made policies. The accrual for so-called DD&R exposure (for death, disability and retirement) was required as this exposure is a common feature of certain professional liability coverages.

The Scope paragraph of the SAO should explicitly call out the extended LAE reserve (Schedule P Interrogatories) and the associated amount upon which the actuary is expressing an opinion (American Academy of Actuaries, 1999, p. 10). Guidance provided by COPLFR indicated their collective view that regulators intended that the actuary opine on all reserves associated with extended loss and expense contracts, whether those reserves are recorded by the Company as loss and LAE reserves or as UPR.

While it was unclear whether the regulators intended that the actuary opine on these reserves on bases gross of reinsurance, net of reinsurance, or both, COPLFR recommended it would be appropriate for the amount cited by the actuary in the Scope paragraph to equal the reserve

amount disclosed in the Interrogatory. If such amounts are material in relation to the aggregate of the loss and LAE reserves, COPLFR recommended the actuary consider the use of estimation techniques appropriate to this reserve (American Academy of Actuaries, 1999, p. 13).

A second change from the updated Regulatory Guidance memo was that actuaries were asked to make disclosures on the impact – if any – of Y2K (American Academy of Actuaries, 1999, p. 57). Insurers at the time were concerned about the numerous programming changes not only in their own systems, but in the computer systems of their insureds regarding the new millennium. That is, the programming for most systems built in the 60s, 70s and 80s were designed with a two-digit code for “year.” Most systems had to be retrofitted to accommodate a four-digit “year” code beginning in 2000. There was widespread concern as to the number of liability, property and other casualty claims that may arise due not only to the changes in programming in the late 90s, but also to the ability of critical systems to work properly after the clock turned to the year 2000.

## 12. Changes in 2000

The most important change to the SAO in 2000 came not from the regulators but from the ASB in the form of ASOP 36 – “Statements of Actuarial Opinion Regarding Property/Casualty Loss and Loss Adjustment Expense Reserves” (American Academy of Actuaries, 2000, p. 2). Without discussing every nuance of ASOP 36, the standard of practice provided actuaries with formal

standards for issuing SAOs. In particular, it defined for the first time the five (and only five) types of SAOs to be issued for domestic P/C carriers:

- Reasonable
- Redundant/Excessive
- Deficient/Inadequate
- Qualified
- No Opinion

It also provided standards on reserve ranges versus point estimates, materiality, disclosures on the risk of material adverse deviation (RMAD), reliance on others, and disclosures and evaluation of risk transfer elements in reinsurance contracts.

The dissemination of ASOP 36 was of so much interest to CAS members that two extraordinary things happened during its consideration. First, the ASB approved the Second Exposure Draft but rescinded its approval shortly thereafter upon feedback from the membership. A Third Exposure Draft was issued and a formal hearing was convened after the Casualty Loss Reserve Seminar in San Francisco in November 1999. (This was the only time the ASB convened a hearing on a proposed Standard of Practice). After receiving many comments, the Third Exposure Draft was ultimately approved and implemented by the ASB. A revised ASOP 36 was approved in 2012.

In its Practice Note, COPLFR added language pertinent to year-end 2000 SAOs vis-à-vis ASOP 36. In part, the new guidance from COPLFR mentioned ASOP 36 required an explanatory paragraph in situations where the actuary reasonably believes that there are significant risks and uncertainties that could result in material adverse deviation. This paragraph would be in addition to, and may be different from, the extended comments on major risk factors previously required by the NAIC Instructions (American Academy of Actuaries, 2000, p. 2). This new provision is commonly referred to as the RMAD disclosure.

Further discussion about ASOP 36 and its impact on SAOs is beyond the scope of this paper.

A development in 2000 that would affect the actuarial profession in future years was another wave of insurer insolvencies (involving Superior National, Reliance, Legion and PHICO).

### 13. Changes in 2001

There were many changes to the SAO in 2001. The scope of the SAO was expanded again to include retroactive reinsurance reserves. A disclosure was required from the Appointed Actuary to the company board of directors that the SAO and Actuarial Report in support of the SAO were being made available. Another disclosure was required if the opining actuary relied in any way on the opinion of another actuary; in such cases, the name of the other actuary needed to be disclosed (American Academy of Actuaries, 2001, p. 2).

The seminal event in 2001 impacting the insurance industry was 9/11. Regulators recommended that opining actuaries make a special disclosure for year-end 2001 SAOs about the nature and extent of company exposure to terrorist attacks (American Academy of Actuaries, 2001, p. 73).

Mold was added as a possible risk factor and of interest to regulators (American Academy of Actuaries, 2001, p. 29).

#### 14. Changes in 2002

There were not any substantive changes to the SAO in 2002, but some items were clarified with the intention of greater adherence to actuarial standards of practice. If there were segments for which the actuary was not providing an opinion, COPLFR clarified that, under ASOP 36, this would be a qualified opinion and the segment and the associated reserve amounts had to be identified (American Academy of Actuaries, 2002, p. 11). Also, if a reserve estimate for a mass tort exposure was not actuarially estimable, again COPLFR clarified that this may create a qualified opinion under ASOP 36 if the potential amounts are material (American Academy of Actuaries, 2002, p. 18).

The 9/11 events were added as a new risk factor that opining actuaries should consider in the Relevant Comments section of the SAO (American Academy of Actuaries, 2002, p. 26).



In addition, the adoption of Sarbanes-Oxley impacted many organizations, requiring management to certify the accuracy of financial information. In particular, Section 404 requires public companies to make disclosures as to the scope and adequacy of internal controls for financial reporting. The process of setting loss reserves and actuaries' involvement in such was a very significant endeavor by companies both public and private.

#### 15. A Crisis of Confidence Emerges in 2003

Perhaps the most serious challenge to the profession – especially for the P/C industry – emerged in 2003 related to massive loss reserve development at year-end 2002.

The actuarial profession was given a black eye in 2003 with the release of two high-profile reports. Standard & Poor's (S&P) published an article "Insurance Actuaries – A Crisis of Credibility" and Fitch Ratings published a Special Report titled "Property/Casualty Insurance Reserves at Year-end 2002: Filling in the Hole – Slowly."

The genesis of the S&P exposé related to large reserve developments as reported by commercial carriers in the prior three years and the manner in which actuaries contributed to the problem. The paper's first assertion stated

*"Actuaries are signing off on reserves that turn out to be wildly inaccurate"* (S&P Global Ratings'

Credit Research, 2003, p. 1 (online version)).

While S&P admitted that about half the unexpected reserve development related to A&E claims, they nevertheless stated flatly that the actuarial profession should be held equally accountable to company management for the under reserving.

The primary conclusion of the article was:

*“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”* (S&P Global Ratings' Credit Research, 2003, p. 6 (online version)).

After the report was published, S&P maintained their intent was not to impugn actuaries, but to advocate the profession and individual practitioners take a more forceful position to assure companies carry stronger reserves. The report was widely viewed as a wakeup call to the actuarial profession.

In November 2003, Fitch Ratings (Fitch) released a study similarly critical of the profession as regards to industry loss development in 2001 and 2002. Fitch asserted:

*“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”* (Fitch Ratings Ltd., 2003, p. 2).

The report went on to say that posted reserves by management are “wrong because current established actuarial processes are unable to assess ultimate loss costs with any reasonable degree of accuracy” (Fitch Ratings Ltd., 2003, p. 2). The report did acknowledge that 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 Ratings Ltd., 2003, p. 3).

The report stated flatly that reserving shortfalls had increasingly been the result simply of the actuaries being wrong, often to a significant degree. Fitch stated that “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.” They also asserted “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” (Fitch Ratings Ltd., 2003, p. 8).

These critical depictions of the profession set off a flurry of activity in the actuarial profession. A Task Force on Actuarial Credibility was formed and the Critical Review of the U.S. Actuarial Profession (CRUSAP) group was formed. CRUSAP delivered its report and the Morris report was issued. More on these developments follows below.

## 16. Changes in 2004

There were extensive changes and additions to the SAO in 2004, including:

- An explicit RMAD disclosure – yes or no (American Academy of Actuaries, 2005, p. 16);
- Disclosure of materiality standard used for the RMAD disclosure;
- Disclosure of name/affiliation of person at the company upon which the Appointed Actuary relied upon for data;
- Disclosure of difference between the actuary's indicated reserves and company held reserves in the Actuarial Report;
- Disclosure of reconciliation of the data used in the actuarial analysis to Schedule P;
- Extended comments on unusual Insurance Regulatory Information System (IRIS) test ratios;
- New CATF Regulatory Guidance memo (American Academy of Actuaries, 2005, p. 4);
- New Data Testing Requirement for Auditors (American Academy of Actuaries, 2005, p. 5); and
- New SAO for California Workers' Compensation.

Coincident with the reformatting of the SAO, the CATF issued their first Regulatory Guidance memo to provide clarity to the changes to, and regulatory expectations for, SAOs. A new Regulatory Guidance memo was released outside the normal process of the NAIC in order to provide more timely feedback to practitioners. The regulators specified their expectations of the Appointed Actuary to have sufficient awareness of the risk transfer features of the company's reinsurance contracts.

The most important part of the SAO from the viewpoint of the CATF was the RMAD section. To that end, the selection of a materiality standard was vitally important and the CATF introduced the concept of a Bright Line Indicator.

This indicator represented an outside bound for materiality considerations, beyond which the CATF expected to see explicit Relevant Comment paragraphs discussing factors giving rise to the presence or absence of the RMAD. The Bright Line Indicator was:

*“10% of the insurer’s net reserves, that is 10% of the sum of Lines 1 and 3 on Page 3 of the Annual Statement, are greater than the difference between the Total Adjusted Capital and Company Action Level Capital” (American Academy of Actuaries, 2005, p. 80).*

Another new issue related to a change in the 2004 Annual Statement Instructions requiring a company’s auditor to subject the data used by the Appointed Actuary to testing procedures. The auditor was required to obtain an understanding of the data identified by the Appointed Actuary as significant (American Academy of Actuaries, 2005, p. 94). The term “significant” was not defined, so it necessitated the actuary explaining what “significant” meant in the particular analysis in question. COPLFR recommended that data be considered significant if correctness of the data was likely to have a material effect on the SAO, with “material effect” possibly including a change in the type of opinion rendered or the presence or absence of a RMAD (American Academy of Actuaries, 2005, p. 92).

For years, companies licensed to write workers compensation (WC) insurance in California were required to file a special version of Schedule P for California WC. New requirements were issued by the California Department of Insurance for an “Actuarial Certification” of the loss reserves contained in the Special California Schedule P if the company’s WC deposit requirement was \$1 Million or higher, beginning with year-end 2004.

#### 17. Changes in 2005

There were even more changes and additions to the SAO in 2005 including:

- A new confidential document – the Actuarial Opinion Summary – was required for the first time to be filed with state regulators (American Academy of Actuaries, 2005, p. 2);
- The process for changing the Appointed Actuary was outlined in detail, including notification requirements to the outgoing Appointed Actuary and domiciliary Insurance Commissioner. This formalization was based upon the existing process for replacing an independent auditor, and it shortened the timeframe for notification to the domiciliary commissioner after action by the Board of Directors from thirty days to five days (American Academy of Actuaries, 2005, p. 3);
- Attestation requirement for risk transfer in reinsurance contracts was required of the CEO and CFO; the Appointed Actuary needed to provide comments on risk transfer

features of the Company's reinsurance contracts. While the risk transfer evaluation was outside the scope of the SAO itself, the Appointed Actuary nevertheless was advised to be familiar with the risk transfer features of reinsurance contracts and to examine the appropriate disclosures about risk transfer in the Annual Statement including the Reinsurance Attestation Supplement.

In addition, COPLFR published a new Practice Note on the topic of risk transfer. This was an invaluable addition to the actuarial literature and was welcomed by auditors. For the first time, the concept of Expected Reinsurer Deficit (ERD) was advanced as an alternate to the "10/10 rule" for risk transfer testing.

## 18. Developments in 2005

In response to the S&P and Fitch reports, the actuarial profession became inwardly focused. The public profile of actuaries had been elevated considerably in the most recent 10 years but had to endure some tarnish on its reputation. Focus on the actuarial profession was not limited to the U.S. In March 2005, another critical report (the Morris report) assailed the actuarial profession in the United Kingdom.

The Morris report was in response to a U.K. Government request to undertake a wide-ranging independent review of the actuarial profession. Issued in March 2005, the report identified several serious problems facing the profession:

- Insularity in methods and approach;
- Insufficient emphasis on the uncertainties inherent in long-term financial planning;
- Insufficient transparency in actuarial advice;
- Concern about designating certain roles to actuaries; and,
- Perception that the actuarial profession had not properly responded to major changes in both demographics or economic conditions in the U.K. (HM Treasury, 2005, p. 1).

The report studied the competitive landscape in the U.K. for actuarial services, regulatory framework for practicing actuaries and the future role of the Government Actuary's Department. The findings were that there was in fact sufficient competition and choice available in the market for actuarial services, but an "understanding gap" existed between users and actuarial advisors which impacted the choice of providers (HM Treasury, 2005, p. 1).

The report asserted that, at the end of 2003, the actuarial profession in the U.K. was at a crossroads. To address this, the report put forth a number of proposals to improve the scrutiny and challenge of actuarial work that introduced a new regime of independent oversight of the regulation of the profession, exercised by the Financial Reporting Council, including:

- A new Actuarial Standards Board;
- Oversight of compliance with technical and ethical standards;
- New arrangements for actuarial training and continuing professional development;



- More effective scrutiny of actuarial advice; and,
- Clearer lines of accountability of actuaries to regulators, to the profession and to clients and employers (HM Treasury, 2005, p. 1).

There was support for these proposed changes by the profession and regulators. Many agreed the reforms were necessary.

The CAS sought to explore potential underlying causes for the perceived credibility gap and to consider steps that might be taken by the profession to enhance the public's understanding of statements of actuarial opinion and to restore confidence in the actuarial profession. To that end, a new Task Force on Actuarial Credibility was established and it presented its report in May 2005.

The primary recommendations of the Task Force were to enhance:

- Transparency of actuarial findings and disclosures by clearly identifying differences between management's best estimate of the loss and LAE reserves and that of the appointed actuary;
- The public's understanding of actuarial estimates;

- Transparency of actuarial disclosures by requiring the Actuarial Report contain an exhibit summarizing the changes in actuarial estimates from the prior evaluation; and
- The quality of corporate governance by property/casualty insurers by educating audit committees or boards of directors on the roles and responsibilities of the appointed actuary (Casualty Actuarial Society, 2005, p. 4).

There were other recommendations in the report, but these four were implemented by the CAS Board of Directors.

## 19. CRUSAP Report

The AAA also commissioned a study of the U.S. actuarial profession in May 2005. A Critical Review of the United States Actuarial Profession (CRUSAP) was undertaken in part to meet the perceived need of the actuarial profession for such a review, as evidenced by the increased globalization of the profession and the emergence of new actuarial fields, among other factors.

The final report issued in December 2006 contained 19 specific recommendations in six broad categories, including Actuarial Needs of the Public; Education and Training; Ethics and Professionalism; Oversight and Regulation; Actuarial Communications; and Structure of the Profession. The more important recommendations included:

1. Encourage individual actuaries to gain sufficient knowledge to speak out on actuarial elements of major public issues.
2. Require active members of the actuarial profession to meet consistent continuing education requirements.
3. Sponsor research to enhance the ability of the profession to meet the actuarial needs of the public.
4. Establish a joint disciplinary process for the profession, independent of the individual actuarial organizations.
5. Require training and demonstrated proficiency in communications skills as part of the basic education and qualification of actuaries.
6. Establish consolidation of the U.S. actuarial profession as a goal of the profession (CRUSAP, 2006, pp. 18-19).

The last recommendation continues to be discussed to the present day.

In response to a recommendation from the report of the CAS Task Force on Credibility, the AAA presented its first Reserve Opinion Seminar to assist practitioners on the preparation and delivery of formal year-end SAOs. These “boot camp” seminars continue to be provided

annually and are widely regarded as the best educational sessions available for Appointed Actuaries in preparing the SAO.

## 20. Changes in 2006

Two changes affecting the SAO were implemented in 2006. The first was an existing provision in statutory accounting involving accrual for unpaid LAE (Interpretation 02-21). While this had been a feature of statutory accounting for several years, many auditors did not deem it material.

Regulators informed practicing actuaries they intended to enforce this feature whereby prepaid LAE would not obviate the need for an accrual for unpaid amounts (American Academy of Actuaries, 2006, p. 77). This reasoning is consistent with the conservative features of statutory accounting if the organization to which prepaid fees had been made fall under financial distress, additional fees may need to be paid elsewhere to assure the final settlement of all unpaid claims.

The second big change in 2006 was a rewrite of the SAO Instructions for title companies, with the intention of aligning both the SAO format and the Appointed Actuary's procedures and disclosures more closely with those of P/C (American Academy of Actuaries, 2006, p. 2).

An updated Regulatory Guidance memo asked opining actuaries to provide extended commentary in the Actuarial Report in support of the SAO coverage for service contracts along with prepaid LAE (American Academy of Actuaries, 2006, p. 77).

## 21. Changes in 2007

In addition to requiring the SAO be submitted electronically (American Academy of Actuaries, 2006, p. 4), the SAO Instructions were clarified to state the figures in Exhibit B to the SAO be on a net basis unless otherwise indicated (American Academy of Actuaries, 2006, p. 33). New disclosures regarding the name of the Appointed Actuary, relationship to the Company and credentials were required in Exhibit B, along with the identification of the type of opinion issued (American Academy of Actuaries, 2006, p. 4).

Also of note is the fact that ASOP 43, Property/Casualty Unpaid Claim Estimates, was adopted in June 2007. ASOP 43 contains binding guidance on several important aspects of the loss reserve estimation process (American Academy of Actuaries, 2006, p. 2).

## 22. Developments in 2008

The AAA approved new Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion. The definition of Actuarial Opinion was broadened and continuing education requirements were increased to 30 hours annually in areas relevant to the subject of the SAOs

that they issue. Three hours must relate to Professionalism and 6 hours must involve organized activity (American Academy of Actuaries, 2008, p. 5). In addition, a new Specific Qualification Standard indicates that 15 hours must relate to material specific to SAOs; at least 6 of 15 hours must involve interaction with outside actuaries or other professionals (American Academy of Actuaries, 2008, p. 10).

### 23. Changes in 2010

The Schedule P Interrogatories were amended to refer to medical professional liability (MPL) only (American Academy of Actuaries, 2010, p. 6). Before this, companies with death, disability and retirement (DD&R) exposure from accountants and/or lawyers professional liability companies had been recording liabilities in the Schedule P Interrogatories. Regulators clarified their intent that this schedule relate only to MPL.

Changes to Note 30 to Financial Statements were also implemented relative to premium deficiency reserves (PDR). In particular, companies were instructed to not only disclose the amount of the PDR, but also the date of last review and whether or not investment income was considered (American Academy of Actuaries, 2010, p. 6).

The Regulatory Guidance memo spelled out expectations regarding the proper documentation of the Schedule P reconciliation and the identification of the person upon whom the Appointed Actuary relied upon for the data (American Academy of Actuaries, 2010, p. 7).

In addition, the NAIC used the Model Audit Rule (MAR), effective in 2010 or once a state adopted it (American Academy of Actuaries, 2010, p. 2). The MAR relates to financial statement audits of companies, including qualifications of certified public accountants, communication of internal contacts and audit committee requirements.

The AAA (via COPLFR) released the document “An Overview for Audit Committee Members of P/C Insurers: Effective Use of Actuarial Expertise.” It has since been included as an appendix to the Practice Note to assist opening actuaries on expectations regarding communications with Boards of Directors and/or the Audit Committee of the Board (American Academy of Actuaries, 2010, p. 117).

#### 24. Changes in 2011

A revised ASOP 36 approved by the ASB and several new disclosures were required in the SAO, including (American Academy of Actuaries, 2011, p. 5):

- Intended users and intended purpose of the SAO;
- Stated basis of reserve presentation;

- Whether any material assumption or method was prescribed by law; and
- Whether the actuary disclaims responsibility for any material assumption or method that originated from another source (American Academy of Actuaries, 2011, p. 6).

About the same time, ASOP 9 was repealed (American Academy of Actuaries, 2011, p. 6). Some regulators were concerned that repealing ASOP 9 lowered the bar for disclosures by opening actuaries, as the former Section 5.2 of ASOP 9 required actuaries not only to disclose material changes in sources of data, assumptions or methods from the prior year analysis, but also to “describe the impact of these changes.” While not requiring actuaries to quantify the impact of the changes, it nevertheless provided an affirmative obligation to describe the impact in some fashion.

The Regulatory Guidance memo offered suggestions on documentation in the Actuarial Report regarding expected loss ratios, actuarial judgment, changes since prior year, describing the Appointed Actuary’s role in advising the Company regarding carried reserves and the manner in which the Actuarial Report and/or findings is presented to the Company Board of Directors (American Academy of Actuaries, 2011, pp. 92-93).

The Practice Note added illustrative language regarding the Review date and Accounting Standard per ASOP 41 and how to describe Reliance on Others per ASOP 36 (American Academy of Actuaries, 2011, p. 7).



## 25. Changes in 2012

The changes to the SAO in 2012 involved new disclosures regarding any change in the Appointed Actuary from the prior year, if there were disagreements regarding the Category of Opinion issued and wording of the SAO itself (American Academy of Actuaries, 2012, pp. 3, 5).

A better definition of the Actuarial Report in support of the SAO was provided and amended to include the Board of Directors as a member of the SAO's intended audience (American Academy of Actuaries, 2012, p. 7).

## 26. Changes in 2013

While the SAO Instructions for year-end 2013 did not change, the Regulatory Guidance memo clarified regulatory expectations for the Actuarial Report.

Included was the regulators' expectation that the Schedule P reconciliation should incorporate both a mapping of the data groupings used in the analysis to Schedule P line of business and a detailed reconciliation at the lowest practical level of segmentation (American Academy of Actuaries, 2013, pp. 76-78). If such a reconciliation could not be performed, the Actuarial Report should document the reasons. Also, all data elements used in the analysis are to be included in the reconciliation.

It was clarified that the change in estimates measured in the Actuarial Report should include those years that were also in the prior Actuarial Report (excluding the addition of the new year). Also, if loss reserves were calculated based on the Appointed Actuary's estimated ultimate losses, then the change in estimates should measure the change in ultimate losses. If the methodology used in the prior report estimated the loss reserves directly, then the change in estimates should measure the incremental paid losses plus the change in estimated unpaid losses. Further, guidance was provided that the change should be discussed on both a gross and a net basis, and that the discussion should consider "significant" changes in the aggregate, by segment, and by year. The level of detail used to describe the changes in the report was left to the actuary's discretion, along with what is considered "significant." However, "significant" in this context generally means a lower threshold than the materiality standard used for the RMAD disclosure in the SAO.

## 27. Changes in 2014

Several changes were made to the SAO Instructions for year-end 2014, including moving the discussion of risk factors in the Relevant Comments paragraph to precede the RMAD disclosure, so the discussion of risk factors is included even when no RMAD is judged to exist (American Academy of Actuaries, 2014, p. 4).

Some changes were related to materiality. For example, it was clarified that disclosure is required if the actuary made use of another's work for a material portion of the reserves, and

that the insurer is required to report the change in Appointed Actuary to the domiciliary commissioner when there is a disagreement regarding substantive wording of the opinion. In the latter situation, the letter must include a description of the disagreement and how it was resolved (or that it was not resolved).

#### 28. Changes in 2015

There were no substantive changes to the SAO instructions for year-end 2015. The Regulatory Guidance memo advised that an explanation should be provided if the values do not match between the SAO, Actuarial Opinion Summary (AOS), Annual Statement or Actuarial Report (American Academy of Actuaries, 2015, p. 7). Also, if the type of opinion is not Reasonable, regulators encouraged Appointed Actuaries to carefully consider their responses to “Meet the requirements of the insurance laws of (State X)” and that they “Are computed in accordance with accepted actuarial standards and principles” in the Opinion paragraph.

#### 29. Changes in 2016

Once again, for year-end 2016 there were no substantive changes to the SAO Instructions, but there were several changes to enhance clarity (American Academy of Actuaries, 2016, p. 7). These changes included that, when an insurer is required to report a change in Appointed Actuary to the domiciliary commissioner because of a disagreement, this relates to a material

disagreement between the Appointed Actuary's final estimate and the company's carried reserves, rather than routine disagreements that are resolved throughout the course of an analysis.

Also, the name and affiliation of a non-actuary relied upon for a material portion of the reserves must be disclosed, along with a description of the type of analysis that was relied upon.

If the Appointed Actuary reaches a different conclusion regarding the reasonableness of the carried reserves, the materiality standard, or the RMAD on a direct and assumed basis vs a net basis, a Relevant Comment paragraph should be included to address the differences.

### 30. Solvency Modernization Initiative

Concurrent with changes to SAO requirements for 2008 forward, the NAIC was pursuing a new Solvency Modernization Initiative (SMI) (National Association of Insurance Commissioners, 2013). The NAIC recommended a study into statutory accounting principles in light of international developments, such as Insurance Core Principle 16 from the International Association of Insurance Supervisors (IAIS), the Insurance Contracts proposals from the International Financial Reporting Standards (IFRS) and Solvency II.

The intent of SMI was to balance goals of:

- Transparency
- Policyholder considerations for information
- Disclosure

One area of question related to potential changes to RBC, but it was evident that solvency monitoring in the future must incorporate enterprise risk management (ERM). The NAIC white paper presents the following structure:

1. Capital Requirements – RBC has been around since 1994. The formulas, factors and methodologies have evolved over the years since it was introduced, but are calibrated to identify weakly capitalized companies. It is not designed to estimate economic target levels for capital. The NAIC decided that RBC would remain in place as the floor for triggering regulatory intervention. Ongoing studies of risk factors in RBC indicate that perhaps a new risk charge for catastrophe risk should be developed. There will likely be increased granularity of asset and investment risk charges. Credit risk charges for reinsurance recoverables need to be refined and a new Operation risk charge may be added.
2. Governance – On-site examinations currently involve coverage of governance issues, but an Own Solvency Risk Assessment tool (ORSA) will be essential in the future to assist regulators in assessing the breadth and effectiveness of company governance. The ORSA Model Act was adopted and regulators are focused on gaining training in ERM.

3. Group Supervision – Currently performed under the Insurance Holding Company System Regulatory Act (#440) and the Insurance Holding Company System Model Regulation with Reporting Forms & Instructions (#450). The approach is referred to as a “Windows & Walls” approach (National Association of Insurance Commissioners, 2013, p. 69). The approach is to enhance models and monitoring to provide clearer windows into a group’s operation, while building upon existing walls providing solvency protection. The Group Solvency Issues (E) Working Group of the NAIC continues its work in this area.
  
4. Statutory Accounting and Financial Reporting – The present system provides for consideration of periodic changes in GAAP pronouncements. The NAIC is taking a wait and see approach to developments in the IASB/IFRS Insurance Contracts project.
  
5. Reinsurance – The approach to considering reinsurance in SMI came from the amendments to the Credit for Reinsurance Model Law (#785) and Credit for Reinsurance Model Regulation (#786). The Financial Regulation Standards and Accreditation (F) Committee adopted revisions to the accreditation standard for reinsurance ceded reflecting key elements from revised Models #785 and #786. The certification process for reinsurers (states retain authority to recognize certification) considers “Qualified jurisdictions.” Certified reinsurers will be eligible for collateral reduction (reductions correspond to the particular rating).

Solvency regulation in the U.S. is moving forward rapidly and when ORSA reports are required of all companies, actuaries will be at the forefront of contributing to the content of these reports. The ORSA Guidance Manual gives companies a roadmap of regulatory expectations.

### 31. Conclusions

The actuarial profession is much stronger and has a higher profile now than it did in the late 70s and early 80s. This did not happen by chance but was due to proactive efforts by leaders of the profession.

Working with regulators, the actuarial profession has been instrumental in implementing enhancements to the SAO over a long period of time. These changes have been significant in elevating the reputation of actuaries in the eyes of the public. In addition, the approach to solvency regulation has been considerably strengthened with RBC, MAR and SMI.

Actuaries have also played a fundamental role in providing the tools and modeling capabilities that have allowed the property/casualty insurance business as a whole to function at a higher level.

How will the actuarial profession be viewed 35 years from now? We predict the actuaries of the future will be viewed as preeminent experts in the business of insurance, will possess an ever-

increasing array of technological tools and modeling capabilities, and will be regarded even more highly by the public at large.



## 32. Abbreviations

A&E	Asbestos & Environmental
A&O	Adjusting & Other Loss Adjustment Expenses
AAA	American Academy of Actuaries
ABCD	Actuarial Board for Counseling and Discipline
ALAE	Allocated Loss Adjustment Expenses
AOS	Actuarial Opinion Summary
ASB	Actuarial Standards Board
ASOP	Actuarial Standard of Practice
ASPA	American Society of Pension Actuaries
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CAPP	Conference of Actuaries in Public Practice
CAS	Casualty Actuarial Society
CATF	Casualty Actuarial Task Force
CIA	Canadian Institute of Actuaries
CMP	Commercial Multiple Peril
COPLFR	Committee on Property and Liability Financial Reporting
CRUSAP	Critical Review of the U.S. Actuarial Profession
DCC	Defense and Cost Containment Expenses
DD&R	Death, Disability and Retirement
ERD	Expected Reinsurer Deficit

ERM	Enterprise Risk Management
FAS	Financial Accounting Standard
FMP	Farmowners Multiple Peril
GAO	General Accounting Office
HMP	Homeowners Multiple Peril
IAIS	International Association of Insurance Supervisors
IASB	Interim Actuarial Standards Board
IFRS	International Financial Reporting Standards
IRIS	Insurance Regulatory Information System
LAE	Loss Adjustment Expenses
MAR	Model Audit Rule
MPL	Medical Professional Liability
NAIC	National Association of Insurance Commissioners
OPEC	Organization of Petroleum Exporting Countries
ORSA	Own Solvency Risk Assessment
PDR	Premium Deficiency Reserves
RBC	Risk Based Capital
RMAD	Risk of Material Adverse Deviation
S&P	Standard & Poor's
SAO	Statement of Actuarial Opinion
SOA	Society of Actuaries
SMI	Solvency Modernization Initiative

ULAE	Unallocated Loss Adjustment Expenses
UPR	Unearned Premium Reserves
WC	Workers' Compensation
Y2K	Year 2000

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