

A PUBLIC POLICY OVERVIEW

**An Overview for Audit Committee  
Members of P/C Insurers:  
Effective Use of Actuarial Expertise**

*September 2007*

American Academy of Actuaries'  
Committee on Property and Liability  
Financial Reporting



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AMERICAN ACADEMY *of* ACTUARIES

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# An Overview for Audit Committee Members of P/C Insurers: Effective Use of Actuarial Expertise

## AMERICAN ACADEMY *of* ACTUARIES

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Prepared by the American Academy of Actuaries' Committee on Property and Liability Financial Reporting

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## *Summary*

The reliability of financial statements for property/casualty insurance companies depends significantly on the accuracy of the recorded liabilities for unpaid claims, commonly referred to as “loss reserves.” Unlike most balance-sheet liabilities common to other industries, the loss reserves of a property/casualty insurer are, by necessity, based on actuarial estimates.

Loss reserve estimates are often subject to significant uncertainties. In the recent past, property/casualty insurers have announced significant loss reserve increases for reasons that include, but are not limited to: asbestos litigation; construction defect claims; and unpredictable medical malpractice awards. For some companies, these loss reserve increases impair the financial condition of the insurer; for others, reported profitability is affected.

Property/casualty insurance companies’ audit committees and boards of directors have a fiduciary responsibility for overseeing the financial reporting process. Since loss reserves are crucial to property/casualty insurers’ financial statements, audit committees and boards of directors may benefit from comprehensive interaction with their actuarial professionals to obtain a better understanding of the loss reserve estimation process and the uncertainty inherent in its results.

This document is intended to provide members of boards of directors and audit committees of property/casualty insurance companies with a more complete understanding of the information and assistance that actuarial professionals can provide as members perform their oversight roles.

The considerations contained herein are based on broad generalizations and are not intended to describe or establish actuarial standards of practice or requirements. The information presented herein is intended to apply to a large percentage of property/casualty insurers. Within the property/casualty insurance industry, there is wide diversity of actuarial practice. Each company and each situation must be evaluated on the basis of its own circumstances.

This document is offered primarily for members of audit committees and boards of directors of property/casualty insurers subject to regulation by the member states of the National Association of Insurance Commissioners (NAIC). While most of the considerations apply as well to other insurance entities, including non-U.S. insurance companies, captive insurance companies, corporate self-insurers, etc., some of the references contained herein are specific to the NAIC’s requirements regarding the recording of loss reserves in insurers’ financial statements.

This document is organized as follows:

- Background on loss reserves and the roles of actuaries in setting them
- Actuarial considerations for members of audit committees and boards of directors
- Sample checklist

## ***Background on Loss Reserves and Roles of Actuaries in Setting Them***

### **Property/Casualty Insurance Loss Reserves**

It is helpful for audit committee and board members to develop an effective working understanding of the nature of property/casualty insurance claim liabilities.

A property/casualty insurance policy is a promise to pay claims related to covered, or insured, events. Usually, covered events take place during the time the policy is in effect (e.g., an auto accident, injury, or loss of property as a result of a loss covered under the terms of the policy). In some cases, the insurance company is not presented with a claim or demand for payment by the insured or a third party until years after the covered event has occurred. It often takes many additional years for the claim, once made, to be investigated and settled.

When these claims are eventually settled, the insurance company must have the resources to pay the claim in accordance with the policy provisions. Therefore, until all claims are resolved and the related amounts are paid, insurance accounting rules require the insurer to establish a “loss reserve” (including loss adjustment expenses<sup>1</sup> [LAE] or settlement costs) as a liability on the company’s balance sheet. The loss reserve is based on the company management’s best estimate of the amounts that will be paid in the future for losses and settlement costs related to covered events that have occurred as of the date of the financial statement, whether or not all claims have been reported at that time.

The duration and the uncertainty of the claims-settlement process require loss reserves to be based on estimates. A property/casualty insurer’s loss reserves are typically the company’s largest balance-sheet liability by a wide margin and its greatest source of financial statement uncertainty. Loss reserves can be difficult to estimate, and the amounts ultimately paid may be far less than, or greater than, amounts previously estimated.

A conclusion that prior years’ loss reserves need to be revised, based on current facts and circumstances, affects both the company’s reported surplus and its income during the period in which that conclusion is reached. Changes in loss reserve estimates have consequences both for the financial condition of the company and for its apparent operating profitability. It is important that the loss reserves be set as accurately as possible, reflecting all information available at the statement date, to lessen the likelihood of distortions in the insurer’s financial reporting.

### **Role of Actuaries in the Reserving Process**

Actuaries usually play an integral role in the loss-reserving process. The actuarial role is generally provided by one or more of the following sources:

- *Internal Actuaries* – Many insurance companies employ actuaries to aid in setting loss reserves. Typically, the internal actuary provides periodic analyses of loss reserves and assists management in understanding underlying claim trends, the judgments and assumptions used in the analyses, and any material risk factors that may affect the loss reserves. The internal actuary may also lead presentations regarding estimated loss reserves to boards of directors and audit committees.

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<sup>1</sup> LAE is discussed in greater detail in Actuarial Standard of Practice No. 43, *Property/Casualty Unpaid Claim Estimates*, which can be found at [http://www.actuarialstandardsboard.org/pdf/asops/asop043\\_106.pdf](http://www.actuarialstandardsboard.org/pdf/asops/asop043_106.pdf) (last viewed on August 16, 2007).

- *Audit Firms* – Often, insurance companies’ external audit firms will assign actuaries to their engagement teams. The audit firms’ actuaries evaluate the reasonableness of the recorded amounts. To assist them in this evaluation, they may develop an alternative point estimate and/or range of reasonable estimates of the loss reserves. This range is usually much narrower than a range of possible outcomes, and it is intended to be an independent assessment of whether the recorded loss reserve amounts are reasonable in light of the available information.
- *Consulting Actuaries* – Some companies engage third-party actuarial consultants to perform independent analyses of the loss reserves. Such analyses can encompass the entire claim population or can be limited to some unusual or especially problematic portion of the exposures. The detailed analysis performed by consulting actuaries often includes independent methodologies, judgments, and assumptions.

Regardless of the source of the actuarial analysis that a property/casualty insurer utilizes in its determination of the loss reserve, U.S.-domiciled insurers appoint a qualified actuary, or “appointed actuary,” to render an opinion on the recorded loss reserves; this opinion is based on specifications described by the National Association of Insurance Commissioners. The opinion of the appointed actuary is contained in a formal, public document called the Statement of Actuarial Opinion (SAO).<sup>2</sup> The SAO is an important tool used by insurance regulators to assess insurer solvency. In addition to the actuarial opinion on the reasonableness of the recorded loss reserves, the SAO contains informative disclosures regarding the factors affecting the variability of the loss reserves and the appointed actuary’s view as to whether there is a risk of material adverse deviation.

### ***Actuarial Considerations for Members of Audit Committees and Boards***

There are several fundamental issues that audit committees and board members may find useful to consider in the context of the loss-reserving process. They include:

- Setting of Loss Reserves: A management process resulting in the amounts recorded in the financial statements, including the key controls around that process, which improve objectivity.
- Loss Reserve Uncertainty: Understandable, meaningful information on the uncertainty in the ultimate amount and timing of the payment of loss reserves.
- Historical Reserving Accuracy: Critical analysis of the accuracy of previous estimates, both specifically for the company and generally for the industry.
- Industry and Competitor Company Trends and Risks: Industry reserving trends and risks and how they may affect the company.
- Disclosures: Both public and privately held insurance companies are required to disclose information in filings with regulatory officials about recorded loss reserves and the various risks associated with those loss reserves.<sup>3</sup>

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<sup>2</sup> In the United States, the SAO is prepared at the legal entity level, i.e., for each individual insurance company within a group rather than for the consolidated group of companies. (See the NAIC’s Annual Statement Instructions for Property/Casualty Actuarial Opinions for the Year 2006, available at <http://tinyurl.com/2kp223>, last viewed on August 16, 2007).

<sup>3</sup> Public insurance companies that are Securities and Exchange Commission (SEC) registrants follow U.S. GAAP and SEC rules and related interpretations, primarily FASB Statement No. 60, *Accounting and Reporting by Insurance Enterprises*, AICPA Statement of Position No. 94-5, *Disclosures of Certain Matters in the Financial Statements of Insurance Enterprises*, Industry Guide 6, *Disclosures Concerning Unpaid Claims and Claim Adjustment Expenses of Property-Casualty Insurance Underwriters*, and the Management’s Discussion and Analysis, which require disclosures intended to help a reader understand the complexity, judgment, and

The discussion below further explains these items and is intended to provide members of audit committees and boards with ideas about information that can be requested from their actuarial professionals.

### **Setting of Loss Reserves**

While determining the amount to record for loss reserves for property/casualty insurance companies is the responsibility of the company management, the process often involves significant input from actuaries. As such, it is very helpful for members of audit committees and boards of directors to understand the principles of the reserving process. These considerations include the following:

- The process of setting loss reserves
- How objectivity is achieved
- How actuarial estimates are considered
- Actuarial ranges of reasonable estimates
- Key statistics and benchmarks

### **The Process of Setting Loss Reserves**

An understanding of the loss reserve setting process begins with an understanding of the person or management group responsible for setting and updating loss reserve amounts, the fundamental process used by that person or group, and actuaries' role or roles in that process. It is equally important to understand the nature of, and reasons for, any differences in the processes that are used among financial reporting periods (i.e., calendar quarters and/or at year-end).

Members of audit committees and boards of directors benefit from understanding the significant judgments and assumptions that enter into the loss reserving process. In addition to its impact on loss reserve estimation, this information can be useful for many business decisions, such as the pricing of insurance policies or increasing or decreasing market share in a line of business or geographic area.

### **How Objectivity is Achieved**

Additionally, members of audit committees and boards of directors would benefit from an understanding of the steps that management uses to attain objective results and the internal controls established around those steps, including the following key concepts:

- *Segregation of duties.* While input from those responsible for pricing or developing business (e.g., underwriters, pricing actuaries) is often very useful to the loss reserving process, objectivity typically improves when different actuaries perform the primary reserving and pricing roles. The perspectives of the pricing and reserving actuaries are often different, with the pricing actuary focusing on the profitability of current and future business. In contrast, the reserving actuary focuses on the potential outcomes connected with business written in the past, even business written in discontinued lines and geographic areas.

- *Use of reserve committees.* Some insurance companies have reserve committees or an equivalent oversight management group, often organized at one or more management segment levels (e.g., legal entity, line of business, region). The committee might include the segment's executive management, the segment's internal reserving actuary, and heads of key operating functions (e.g., claims, underwriting, marketing).

Having a reserve committee does not ensure objectivity, and members of audit committees and boards of directors may wish to inquire further to determine its effectiveness. The extent to which a reserve committee improves objectivity is partly a function of the quality and efforts of the reserve committee members. Members of audit committees and boards of directors should learn the identities and qualifications of reserve committee members. The reserve committee members may find value in meeting separately with the lead actuary to obtain the actuary's view of the reserve committee's effectiveness.

### How Actuarial Estimates Are Considered

Actuarial estimates are not necessarily adopted unilaterally in the loss-reserving process. Typically, reserving actuaries develop estimates of the loss reserves, and the company management records an amount that may differ from the actuary's estimate. It is important that members of audit committees and boards of directors ascertain the differences between the actuarial and management estimates. They may also wish to inquire about the reasons for the differences. In particular, members of audit committees and boards of directors may find it helpful to understand the answers to the following questions:

- Does management's process typically result in differences between the actuary's estimates and the recorded amounts, and if so, why?
- How do management's estimates compare to a range of estimates that the actuary may develop?
- Has due diligence been performed to identify the reserving effect, if any, of any significant recent changes in the company's operations (e.g., claims, underwriting, reinsurance)?
- If such changes exist, what adjustments, if any, are made (by management and/or the actuary) to reflect the effect of the changes on the estimates of loss reserves?

### Key Statistics and Benchmarks

In addition to these items, there are benchmarks that may be useful in the audit committee's or the board of director's understanding of the recorded loss reserve, such as:

- Recorded and actuarially estimated loss ratios by accident year and product line
- Various ratios of quantities, such as incurred-but-not-reported (IBNR) losses to case reserves and/or number-of-claims-closed to number-of-claims-reported at successive points in time
- Changes in prior-period estimates of loss reserves and ultimate losses. The changes to estimated amounts during the current period should be clearly identified and explained to the audit committee.

This list of benchmarks is not exhaustive, and it does not apply in all situations. In all cases, an effective oversight process should involve meaningful dialogue among the parties

responsible for estimating and recording the loss reserves with the audit committee or board of directors.

### **Loss Reserve Uncertainty**

In addition to contributing to the loss reserve setting process, actuaries are uniquely qualified to provide insights into the potential for variability in loss reserve estimates.

Estimating loss reserves involves predicting future loss payments based on historical and current information and knowledge, as well as judgment about future conditions. However, changes to historical patterns and trends—changes due to, among other factors, an evolving legal or social environment, claimants’ attitudes regarding insurance claims, changes in the national or regional economic performance, or changes in company operations and its book of business—make the incidence of claims more or less likely and claims’ settlement values lower or higher.

Actuaries often employ several methods to estimate loss reserves in a given situation. These methods often consider historical information when predicting the future. Typically, multiple actuarial methods are appropriate, and, for each of those methods, numerous assumptions are reasonable. The actuary may provide a “range of reasonable estimates” of loss reserves based on various combinations of these methods and assumptions. This range is typically developed by the appointed actuary to assist in creating an opinion on the reasonableness of the recorded loss reserves.

A range of reasonable estimates considers variability similar to what may have been observed in the past. However, this range typically excludes the possibility of sudden shifts in the legal, judicial, and economic-reserving environments. Nevertheless, such shifts can and do occur. For example, in the past 15 years, the following have been witnessed:

- Significant loss reserve increases for asbestos and environmental liabilities;
- Large loss reserve decreases for personal lines in the mid-1990s;
- Large loss reserve increases relating to professional and general liability lines.

Each of these trends resulted in reserve development that likely exceeded the size of a range of reasonable estimates, sometimes substantially. Actuaries understand that the range of possible future outcomes is wider, sometimes significantly wider, than the range of reasonable estimates generated at any point in time.

While it may not be possible to quantify future losses resulting from unforeseeable events, members of audit committees and boards of directors may benefit from a conceptual discussion of risk factors that threaten reserve development outside of the current range of estimates.

### **Historical Loss Reserve Development**

A company's record for accuracy in setting loss reserves is a standard disclosure in the U.S., both for publicly-traded and for non-public property/casualty insurers.

The SEC requires each publicly traded U.S. property/casualty insurance company to include as part of its annual Form 10-K a ten-year loss reserve development table. This table compares the company's consolidated loss reserves recorded at each of the past 10 year-ends to updated estimates for those same years based on the most recently recorded amounts for those years.

For U.S. property/casualty insurers, a summary of similar information is provided in Schedule P, Part 2 – Summary (Schedule P) of the NAIC statutory Annual Statement, which is filed by each individual insurance company for regulatory purposes. Schedule P shows the annual development of ultimate losses for each of the past 10 coverage years (“accident years”).

Both the SEC disclosures and Schedule P filings provide 10 years of history showing the accuracy of management's loss reserve decisions over time. These schedules are used by analysts and other users of the information to assess the reliability of the company's current reserving practices and the accuracy of the balance sheet estimates relative to those of its peers.

With regard to this historical information, members of audit committees and boards of directors may find it helpful to examine:

- The specific reasons for past years' revisions to loss reserve estimates, including the lines of business, programs, and years affected.
- A comparison to industry trends for the same coverages during the same period.
- A comparison to the reserve activity of the company's closest competitors for the same coverages during the same period.

### **Industry and Competitor Company Trends and Risks**

Members of audit committees and boards of directors may consider significant industry risks, loss reserve developments, and business trends. Useful perspective may be provided by:

- Analyses of historical industry loss reserve adequacy for lines of business written by the company. Stock analysts, rating agencies, and third-party consulting actuaries regularly produce and publish such reports.
- Summaries, with comments, of competitors' loss reserve developments and published disclosures in their Management's Discussion and Analysis, prepared in conjunction with their 10Ks and/or as a supplement to their Annual Statements.
- Explanations of how industry and competitor trends and developments are being considered by the company in setting loss reserves, managing risk, and developing public disclosures on loss reserves.

### **Disclosures**

For insurance regulatory purposes, each company operating in the United States (as well as many in other jurisdictions) is required to file a SAO on loss reserves to accompany its annual statement in its jurisdiction of domicile. The SAO is provided to regulators for

solvency regulation, and that is the context in which it is created and expected to be used. The scope of the SAO includes loss reserves calculated both gross and net of reinsurance, and, typically, the actuary will opine as to whether the loss reserves: (a) meet state requirements; (b) are computed in accordance with generally accepted actuarial standards and principles; and (c) make a reasonable provision for unpaid loss and LAE obligations. The SAO also includes a discussion of risk factors affecting the loss reserves, reasons for unusual adverse prior period development, reinsurance recoverability, and other required topics.

In addition, most states require property/casualty insurance companies to provide a supplemental document known as the Actuarial Opinion Summary (AOS). The AOS provides confidential information about the relationship between the recorded loss reserves and the appointed actuary's estimates. Also, in some cases of recent adverse loss reserve development, the AOS provides the appointed actuary's explanation of the factors contributing to that development.

For public companies, filings made with the SEC serve as additional company disclosures regarding loss reserves and related risk factors. SEC disclosures are intended to provide investors with management's assessment of the reasonably likely variation in loss reserves and the effect of that variation on the financial condition of the company. These disclosures are also intended to justify changes in loss reserve estimates from prior recorded amounts.

Members of audit committees and boards of directors may obtain meaningful information in the SAO filed with the annual statement, the separately provided AOS, and, for public companies, SEC filings. The SAO includes, for example:

- A discussion of each of the risk factors identified in the opinion as a potential source of variability and/or uncertainty.
- The appointed actuary's view on whether there is a risk of material adverse deviation and the definition of "materiality" (in amount). Audit committees and/or boards of directors may want to ask their actuaries how these determinations were made.
- Explanatory comments in cases in which there was adverse development during recent years or in which there is an estimated current loss reserve deficiency based on historical loss reserve ratios to premium.

The NAIC requires that the appointed actuary report on the actuarial analysis and the SAO to the company's board of directors each year. This report may be made in person. Often, the dialogue between members of audit committees or boards of directors and the appointed actuary provides additional insights into key judgments, assumptions, and risk factors associated with the company's recorded loss reserves. In some cases, the audit committee and the board of directors might find it useful to meet in executive session with the appointed actuary absent the company's management.

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A strong understanding of the loss reserve setting process, key risks and uncertainties, and industry developments and trends can improve the ability of members of audit committees and boards of directors to oversee the financial reporting process of property/casualty insurance companies. Actuarial professionals may be able to provide helpful information on each of these points. The standard disclosures and required filings may also be useful in understanding the loss reserving process.

In addition, the Appendix provides a sample checklist, developed in conjunction with the creation of this document, of certain items that members of audit committees and boards of directors may consider helpful.

### *Appendix: Sample Checklist*

Members of audit committees and boards of directors of property/casualty insurance companies may wish to refer to the checklist below when requesting information from their actuaries.

#### Roles and Responsibility

- Name and background of primary internal actuarial contact, often the chief actuary
- Name and employer of each third-party actuary retained by the company to evaluate loss reserves
- Name and background of lead audit firm actuary

#### Loss Reserve Process and Loss Reserve Uncertainty

- Description of the process that management uses to set loss reserves
- An understanding of the steps that management takes to achieve objectivity
- How management considers internal and external actuarial indications when determining what to record as a best estimate and why there may be differences between recorded and indicated amounts
- The internal and external actuaries' point estimates and/or ranges of reasonable estimates and a comparison of these estimates to the recorded amounts over at least the most recent several years
- Key statistics and/or benchmarks appropriate for each line of business, such as loss ratios by accident year
- Amounts and explanations for changes in loss estimates that are being recognized in the current period
- Identification of the potential risk factors that could result in significant changes to loss reserve estimates in the future
- Estimates of developments that may be considered reasonably possible and examples of events that could cause such developments, perhaps based on historical sudden shifts in loss development

#### Historical Analysis

- The company's 10-year runoff table in the SEC 10K and the Schedule P – Part 2 Summary schedule, if available
- A summary of the loss reserve changes shown in these tables
- An understanding of the details of revisions to loss reserve estimates—what lines of business, which years, why such changes were identified
- A comparison to industry trends for the same coverages at this time and an understanding of why the company may or may not show similar development
- A comparison to the company's closest competitors

#### Industry and Competitor Trends

- Analyses of loss reserve adequacy for the lines of business that are relevant to the company
- Loss reserve development trends from competitors, and an explanation of whether, and if so, why the company may show similar development

Public Disclosures

- Oral and written report by opining actuary on their SAO, AOS, and analysis
- Explanation for the risk factors discussed in the opinion
- Identification of considerations useful in determining whether there is a risk of material adverse deviation
- Explanation of unusual values for the NAIC's Insurance Regulatory Information System ratios related directly to reserves