

CAS Annual Meeting

Corporate Governance and the Loss Reserving Process

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Opening Thoughts

What is "governance"?

- *n* . The action of developing and managing consistent, cohesive policies, processes and decision rights for a given area of responsibility.

Topics covered in this session

- Sarbanes-Oxley and Auditing Standard 5
- What is an ideal reserving process?
- Comparing to the ideal
- Audit committees effectively using input from actuaries

Agenda/Contents

Corporate Governance and Loss Reserves
Defining a Best Practices Reserving Process
The Maturity Framework – a Quiz
Role of the Audit Committee

Section One

Corporate Governance and Loss Reserves

Defining a Best Practices Reserving Process

The Maturity Framework – a Quiz

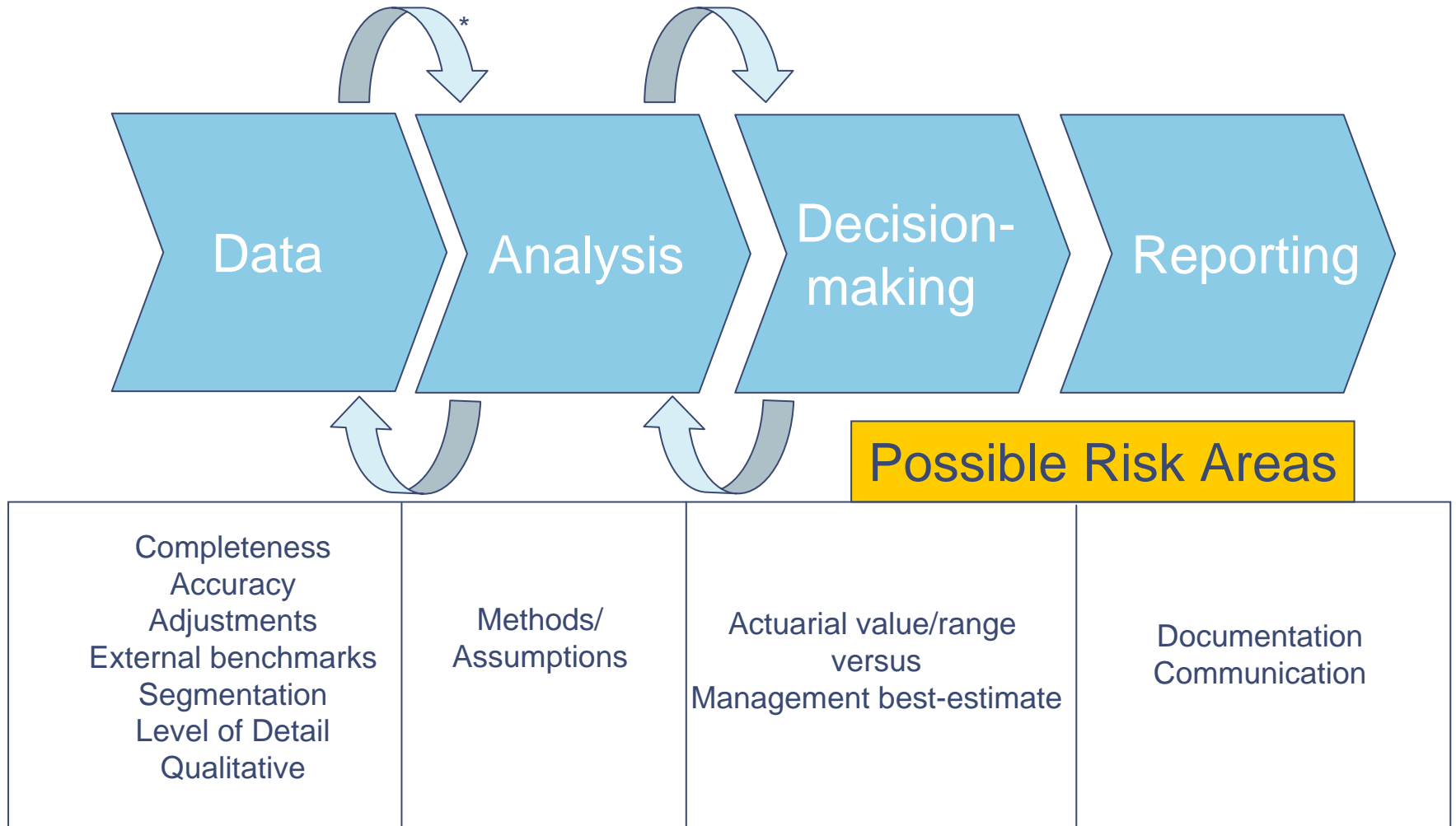
Role of the Audit Committee

Raising the Bar on Reserving Controls

Sarbanes-Oxley Act of 2002, which was effective at year-end 2004 (accelerated filers)

- Publicly-held companies are required to have processes and controls surrounding financial reporting process
- Generally resulted in improved loss reserving processes, controls and documentation

Raising the Bar on Reserving Controls



*** The process is generally not linear; iterations tend to occur. For example, new data are gathered based on initial findings from analysis.**

Raising the Bar on Reserving Controls

Sarbanes-Oxley - Key Controls

- Identify Points of Risks
- Identify Existing Control Activities and/or Design Control Activities to Mitigate Risks
- Identify Key Controls
- Test Design of the Key Controls
- Test Operation of Key Controls over Time

Raising the Bar on Reserving Controls

Sarbanes-Oxley - Key Controls in the Reserving Process

- Reserving data to systems data reconciliations
- Actuarial peer review process
- Actuarial Best Estimate vs. Management's Best Estimate
- Spreadsheet controls

Raising the Bar on Reserving Controls

Sarbanes-Oxley - Documentation

- Reserving Work Product
- Key Controls - level of documentation detail evidencing execution of key controls should be considered sufficient when:
 - a reasonably qualified person,
 - who is not intimately familiar with the process,
 - can obtain sufficient understanding of how the process and embedded controls operate,
 - in order to be able to perform objective validation thereof.
- Reconciliation of Actuarial indications and Recorded amounts.

Raising the Bar on Reserving Controls

Sarbanes-Oxley - Three Years Later . . .

- Some companies embraced the concepts regarding a strong control environment,
while . . .
- Others have the minimum level of controls to accomplish the requirements for managements and external certifications
- Many companies lie somewhere between each of these ends of the spectrum
- AS5 allows for greater use of auditor judgment and reliance on work of others than under AS2

Raising the Bar on Reserving Controls

Benefits from having a strong control environment:

- Greater efficiency in operation
- Reduced risk of reserve misstatement
- Reduced likelihood of surprises
- Few or no deficiencies in controls
- More effective and more efficient external audit
- Smoother regulatory exam

Raising the Bar on Reserving Controls

Concerns with operating at the minimum level of controls:

- Reduced efficiency in operation
- Increased risk of reserve misstatement
- Increased likelihood and frequency of surprises
- Several deficiencies in controls
- Inefficient external audit – time spent debating deficiencies
- Less efficient regulatory exam

Section Two

Corporate Governance and Loss Reserves

Defining a Best Practices Reserving Process

The Maturity Framework – a Quiz

Role of the Audit Committee

Key Elements of the P/C Reserving Process

1. Management and board involvement
2. Actuarial staffing and expertise
3. Data quality and reliability
4. General reserving approach (frequency of reviews, level of detail, gross vs. net, etc.)
5. Reserving methodology
6. Documentation of reserving process
7. Use of external actuaries
8. Financial statement disclosures

Management and Board Involvement

Characteristics of a strong control environment

Management's commitment to a strong control environment:

- Prioritize/commit necessary resources (staffing, systems)
- Minimize conflicts of interest
- Understand/challenge reserve approach, methods, key assumptions
- Proactively monitor changes in estimates

The audit committee:

- Monitor/evaluate policies, principles and internal controls around reserve setting process and effectiveness of related disclosures
- Meet regularly with internal and external actuaries

Actuarial Staffing and Expertise

Characteristics of a strong control environment

Best practice companies have these qualities:

- Appropriately credentialed actuaries who participate in continuing education
- Staffing levels are of sufficient quantity and quality
 - To allow for appropriate frequency of review
 - Proper level of expertise for the type of loss reserves
- Reserving personnel independent of Underwriting and Pricing personnel
- Chief Actuary/lead reserving actuary responsible for:
 - Internal actuarial reserving estimate
 - Presenting estimate and appropriate support to senior management

Data Quality and Reliability

Characteristics of a strong control environment

Themes consistent with a strong control environment:

- Loss/premium/other actuarial data is usable for reserving as captured and contained in the company's systems
- Systems capable of capturing appropriate data
- Limited or non-existent manual processing
- Data is available in a timely manner for actuarial review
- MGA/TPA interfaces are well controlled and monitored
- Data adjustments for FX and intercompany reinsurance are handled accurately and transparently

General Reserving Approach

Characteristics of a strong control environment

Frequency of Reviews

- Most exposures - quarterly analysis without a quarterly lag (more complex exposures might require lag with AvE for latest quarter)
- A&E, other non-traditional exposures – annual analysis

Gross vs. Net of Reinsurance

- Analyses completed concurrently
- Same depth of analysis for gross and net reserves

Use of Reasonableness Checks

- Loss ratios, IBNR/case, other metrics are standard outputs

Use of Software

- Standardized, well controlled, flexible reserving software
- Ad hoc spreadsheets are used sparingly and with appropriate controls

Reserving Methodology

Characteristics of a strong control environment

Use of best methods available for the circumstances

- Method not based on ease of application
- Inferior methods not accepted long term as appropriate where there are data limitations

Regular input from with claims, underwriting, reinsurance, etc.

Information is shared among multiple locations, business units

- Broader/global approaches are used

Reserving actuaries team with pricing actuaries, underwriters to obtain appropriate price monitoring information

Documentation

Characteristics of a strong control environment

Comprehensive documentation of reserving process in a single report or location, including:

- Premium and loss data (reconciled to financial records);
- Actuarial estimates as applied to the data;
- Schedules summarizing the actuarial estimates;
- Documentation of decision-making process for determining management's best estimate;
- Management's best estimate equals amounts recorded in the financial statements.

Documentation also exists to demonstrate:

- Effectiveness of peer and management review;
- Where recorded amounts differ from internal actuarial estimates, a record that qualitatively and quantitatively supports why management believes the recorded amount is better than the actuarial estimate.

Use of External Actuaries

Characteristics of a strong control environment

External actuaries can add value

- May be considered more independent, objective
- Expertise/information not available to company e.g. non-traditional claims
- Differences between internal and external actuarial estimates can highlight areas for additional review
- Can provide insights based on a broad industry perspective

There is value in having the external actuary report to the board and/or audit committee

Financial Statement Disclosures

Characteristics of a strong control environment

Disclosures are clear, understandable, and include:

- Management's process
- How management arrives at its best estimate
- Ranges/other metrics to provide transparency around uncertainty of estimates
- Explanation of prior period development, even if increases in one line or accident year offset reductions in another line or accident year
- Other information that would be useful e.g. global loss triangles for global insurance companies

Section Three

Corporate Governance and Loss Reserves
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Role of the Audit Committee

Comparing to the Optimal

For relative comparison purposes, and to measure progress, use a Maturity Framework can be of value

- Minimal – Operating near or at a minimum level needed to complete an attestation
- Developing – Though the reserving process sometimes runs smoothly, it is not well standardized; numerous gaps and shortcuts exist
- Accomplished – Reserving process is well standardized and is generally smooth, although some gaps and shortcuts exist
- Optimal – A best practices process

Performing an Assessment – Question #1

How committed is senior management?

- a. Senior management voices commitment, but its actions are vague. Personnel resources tend to be overwhelmed. Systems are often older/outdated. Management challenges actuarial results occasionally, but generally only when results are unfavorable.
- b. Senior management voices commitment and its actions are clear in certain spots. Typically, resources are moderately strained and there is room for improvement. Management challenges results at times – favorable or unfavorable – but is not consistent in its method and process.
- c. Senior management voices commitment and its actions are clear in most areas. Resources are at acceptable levels in all but isolated spots. Management challenges results regularly and understands the process but does not get into details.
- d. Senior management strongly committed to loss reserving processes; regularly demonstrated by prioritizing and committing necessary resources, by minimizing potential conflicts of interest, by ensuring they understand and challenge warranted reserving approaches, methods and key assumptions

Performing an Assessment – Question #2

Are staffing levels appropriate?

- a. Staffing levels allow for only annual or semi-annual review; detailed for some lines, high-level review for others. The same individuals often have multiple functions - primary analysis function, a self technical review, and self peer review.
- b. Staffing levels allow for quarterly review in some areas, but are stretched in others - only semi-annual or annual reviews are completed in these areas. Reviews are typically detailed in nature, with some exceptions. Duties are more segregated, although some functions – such as formal technical review, might not exist.
- c. Staffing levels, roles and responsibilities are optimal in most areas; however several gaps in quantity and quality still exist, perhaps in highly specialized areas.
- d. Staffing levels are of sufficient quantity and quality to allow for comprehensive, timely review of the relevant reserving components, and duties are segregated such that separate individuals are responsible for the primary analysis function, technical review, and supervisor peer review.

Performing an Assessment – Question #3

Do data quality issues and system limitations affect reserving?

- a. Actuarial data (e.g., loss, premium) is not captured in sufficient detail for purposes of actuarial analysis, creating difficulties in directly reconciling actuarial data to the financial statements. Complexities of the business have outgrown system capabilities or systems tend to be outdated. Manual "work-arounds" are relatively routine, some of which have effective controls.
- b. Actuarial data may not be captured in sufficient detail for purposes of actuarial analysis, but the problem is not pervasive throughout the reserving process. Certain systems may be outdated, but the problem is not pervasive. Manual processing with effective controls is common.
- c. Actuarial data may not be captured in all cases in sufficient detail for purposes of actuarial analysis, but the problem is generally isolated. System limitations are minor.
- d. Actuarial data is captured in sufficient detail for purposes of actuarial analysis, allowing for relatively easy reconciliation of the actuarial data to the financial statements. Systems capabilities dovetail with actuarial needs; manual processing is minimal or non-existent.

Performing an Assessment – Question #4

How complete and comprehensive is the documentation?

- a. No consolidated report or standard process exists. Actuarial calculations are part of the documentation, and are sometimes accompanied with a memorandum describing the methods and assumptions. Analyses are performed by multiple divisions and are not summarized at the segment/consolidated level.
- b. No consolidated report exists, although the reserving process is reasonably standardized. Actuarial calculations in final form exist, and typically include an explanatory memorandum as part of the documentation. Analyses are still performed by multiple divisions and might be summarized at the segment/consolidated level.
- c. While no consolidated, stand-alone report exists, certain divisions within the company/segment such reports do exist. Results are summarized in some form at the segment/consolidated level.
- d. Documentation is standardized and self-contained in a report, and clearly leads from the data used in the actuarial analysis (reconciled to the financial records), through the compilation and decision-making process and, ultimately, to the amounts recorded in the financial statements.

Performing an Assessment – Question #5

Are 10K disclosures describing process and variability effective?

- a. The disclosures regarding the reserve estimation process are vague and do not represent clearly the underlying process. The disclosures related to the reserve range are overly simplistic and do not explain the relationship of the uncertainty in the actuarial estimates to the resulting risk of reserve variability.
- b. The disclosures related to reserve estimation do generally represent the process used by the company to establish reserves. The disclosures related to the reserve range are clear but seem general, not relating much about the company's particular risks and variability.
- c. The disclosures are clear on the process used to establish reserves and represent the process used by the company. If ranges are provided, the descriptions of the range are clear and appear to relate to the company's particular characteristics.
- d. The disclosures are clear on the process used to establish reserves and why management chose its particular estimate. Reserve ranges or other quantitative measures of variability are provided and described in an understandable manner to a non-actuary (e.g., reasonable range, range of possible outcomes).

Section Four

Corporate Governance and Loss Reserves
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Role of the Audit Committee

What Might the Audit Committee Find Helpful?

(Full version is at http://www.actuary.org/pdf/casualty/audit_sept07.pdf)

An understanding of the roles of actuaries

- Internal Actuaries
- Audit Firms' Actuaries
- Consulting Actuaries

An understanding of the fundamental issues surrounding the reserving process:

- A. Setting of Loss Reserves
- B. Loss Reserve Uncertainty
- C. Historical reserve adequacy
- D. Industry and Competitor Company Trends and Risks
- E. Statutory actuarial opinion and other disclosures

What Might the Audit Committee Find Helpful?

A. Setting of Loss Reserves

- An understanding of the fundamental elements of the process
 - What is the process?
 - How objectivity is achieved?
 - Are there segregation of duties?
 - Are reserve committees used, and are these effective?
- An understanding of how actuarial estimates are considered
 - Are there differences between actuaries' estimates and recorded amounts?
 - Are such differences understood by the audit committee?
- An understanding of the actuaries' track record
- Key statistics and benchmarks (e.g., IBNR/Case, loss ratios)

What Might the Audit Committee Find Helpful?

B. Loss Reserve Uncertainty

- An understanding of the key uncertainties regarding amount of reserves
- An understanding of where recorded amounts are relative to a range of reasonable estimates
 - Audit committee members should understand conceptually the risk factors that could result in reserves developing outside that range

C. Historical Loss Reserve Development

- An understanding of the 10-year runoff table in the 10K (Schedule P-Part 2 for non-public companies), including:
 - Specific reasons for prior period development (which lines, accident years)
 - Comparison to industry/competitor company trends for the same coverages during the same period

What Might the Audit Committee Find Helpful?

D. Industry/Competitor Trends and Risks

- An understanding of the significant industry risks affecting company
- An understanding of historical loss reserving issues, industry and company specific, for lines of business written by the company
- An understanding of how industry and competitor trends and developments are being considered by the company in setting loss reserves, managing risk, and developing public disclosures

E. Disclosures

- An understanding of reserve disclosures in
 - The MD&A and Financial Statements
 - The Statement of Actuarial Opinion (as applicable), including the Risk of Material Adverse Deviation section

Discussion

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