

# 2007 CAS Spring Meeting Session #C12 Loss Reserve Ranges in Practice Tuesday, June 19, 2007

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## Analyzing and Communicating Loss Reserve Uncertainty

- Some interested parties are asking very logical questions in order to understand the potential variability of loss reserves
- These questions present some very difficult challenges for actuaries.



## Analyzing and Communicating Loss Reserve Uncertainty

- Interested parties want to know how management selected the aggregate reserve figure on the balance sheet.
- Why is management's selection more appropriate than any other selection?
- If management's selection differs from the actuary's selection, why did management choose a different number?



#### Selecting the Point Estimate, Low Estimate and High Estimate

Two
Perspectives

The "Interested
Parties"
Perspective

Our Actual
Process



#### Selecting the Point Estimate, Low Estimate and High Estimate

#### The "Interested Parties" Perspective

The actuary selects a low estimate

The actuary selects a high estimate

Management selects a point estimate



### Selecting the Point Estimate, Low Estimate and High Estimate

#### **Our Actual Process**

There may be thousands of point estimates in each reserve review.

The actuary selects a point estimate for each reserve group for each experience period

Interested parties want to know how management chose the point

The actuary sums the point estimates for each reserve group for each experience period



Management selects a point estimate

estimate.



## Example: Number of Point Estimates Selected by the Actuary

Lines of Insurance: Private Passenger Auto

Coverage Groups: BI, PIP, Med Pay, UM/UIM, PD,

Collision, Comprehensive

Experience Periods: Qtrly Accdt Periods for 10 years

Loss Groups: Loss, ALAE

Reserve Methods: 4 Standard Methods

There is uncertainty in the selection of each of the 2,240 point estimates.

1

 $\mathbf{X}$ 

7

X

40

X

2

X

4

2,240



- Interested parties want to know how management selected the point estimate.
  - They want to understand the process.
  - They would like details
  - This entails quite a lengthy response
    - The actuarial point estimates
    - The actuarial methods



- Interested parties want to know the key assumptions influencing the selection of the point estimate.
  - They would like a specific list of key assumptions.
  - They want to know of any changes in the key assumptions.



- Key Assumptions
  - Claims Handling
  - Underwriting
  - Mix of Business
  - Legal/Regulatory Environment
  - etc



Interested parties want to know if there were changes in the key assumptions since the last reporting date that influenced the selection of the current point estimates?



"The Company increased its utilization of alternative dispute resolution processes, such as mediation and arbitration, to facilitate settlements to reduce defense and legal costs."



"The Company increased its in-house legal expertise to better manage the litigation processes and expenses."



"The Company increased its emphasis on attempting to settle third-party claims earlier in the claim process."



"The Company has been aggressively reunderwriting its book of business."



"The Company placed emphasis on removing highly volatile, unprofitable, and undesirable risks from its book of business."



"Improvements in the quality of the book reduced the number and severity of claims in more recent quarters."



- Describe the new events that occurred that led to the change in the key assumptions.
  - Explain what led to the utilization of alternative dispute resolution processes.
  - Explain what led to the increase in in-house legal expertise.
  - Explain what led to the increased emphasis on attempting to settle third-party claims earlier in the claim process."



- Explain why you recognized the change in key assumptions in this period rather than prior periods.
  - The interested parties want to know why the change is impacting the current operating results.



- Quantify the impact of the changes in the key assumptions.
  - How do we explain which specific change or combination of changes that led us to select one reserve amount over another for each reserve methodology for each line for each reserve group for each experience period, etc?