6.7 Summary

5m

Case Outstanding Technique #1

Develop case outstanding and use it to project incremental paid claims.

- **Pros:**
    - Useful for short-tailed lines where most or all claims are reported during the first development year
    - Pairs well with claims-made coverages
- **Cons:**
    - Case outstanding ratios are difficult to interpret
    - Large claims during the experience period can distort case reserves and unpaid claims estimates

KEY ASSUMPTIONS

1. Claims recorded to date will continue to develop in a similar fashion in the future.
2. Case outstanding give us relevant information on claims that have yet to be observed.
3. Throughout the policy period:
    - the mix of claim types is stable.
    - policy limits (if any) are stable.
    - reinsurance retention limits (if any) are stable.
    - there is consistent claims processing (claim settlement rates and case outstanding adequacy).

TECHNIQUE

1. Calculate and select the remaining-in-case ratios

$$\text{Remaining-in-Case Ratio} = \frac{\text{Current Case Outstanding}}{\text{Prior Case Outstanding}}$$

2. Project case reserves

$$\begin{matrix}\text{Projected}\\ \text{Case Outstanding}\end{matrix} = \begin{matrix}\text{Selected}\\ \text{Remaining-in-Case Ratio}\end{matrix} \times \begin{matrix}\text{Prior}\\ \text{Case Outstanding}\end{matrix}$$

3. Calculate and select the paid-on-case ratios

$$\text{Paid-on-Case Ratio} = \frac{\text{Incremental Paid Claims}}{\text{Prior Case Outstanding}}$$

4. Project incremental payments

$$\begin{matrix}\text{Projected}\\ \text{Incremental Paid Claims}\end{matrix} = \begin{matrix}\text{Selected}\\ \text{Paid-on-Case Ratio}\end{matrix} \times \begin{matrix}\text{Prior}\\ \text{Case Outstanding}\end{matrix}$$

Case Outstanding Technique #2

Project future unpaid claims by combining case reserves using industry-based development factors.

- **Pros:**
    - Allows us to project unpaid claims when case outstanding is the only available internal information
    - Commonly used by self-insurers or after mergers with self insurers
- **Cons:**

- Relies on the insurer's ability to obtain industry CDFs
- Assumes that the obtained industry CDFs are representative of the future claim development within the company
- Large claims during the experience period can distort case reserves and unpaid claims estimates

KEY ASSUMPTIONS

1. Claims recorded to date will develop in a similar fashion in the future to the industry benchmark.
2. Case outstanding give us relevant information on claims that have yet to be observed.
3. Throughout the policy period:
    - there is consistent claims processing (claim settlement rates and case reserve adequacy).
    - the mix of claim types is stable.
    - policy limits (if any) are stable.
    - reinsurance retention limits (if any) are stable.

TECHNIQUE

Combine industry-based paid and reported CDFs to create a singular case outstanding development factor.

$$\text{Case OS Development Factor} = 1 + \frac{(\text{Reported CDF} - 1)(\text{Paid CDF})}{\text{Paid CDF} - \text{Reported CDF}}$$

Multiply by AY case outstanding to project unpaid claims.