

## 8.1 Summary

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### Salvage and Subrogation

- **Salvage** refers to the proceeds from selling damaged property that the insurer collects.
- **Subrogation** refers to the insurer's right to recover claim payments from a third party responsible for damages and/or injuries.

### DATA CONSIDERATIONS

Insurers vary in how they process and track S&S:

- Some insurers track case estimates and payments separately for various recovery types (i.e., salvage, subrogation, deductibles, and collateral sources).
- Others consolidate claims data across all recovery types; often, they only record payments without estimating any case outstanding.
- Some consider recoveries as negative claim payments and avoid maintaining distinct recovery data.

### ESTIMATING S&S RECOVERIES

To estimate unpaid S&S or unreported S&S, use either of the following:

$$\text{Unpaid S\&S} = \text{Ultimate S\&S} - \text{Received S\&S}$$

$$\text{Unreported S\&S} = \text{Ultimate S\&S} - \text{Reported S\&S}$$

The development technique is a common approach to estimating ultimate salvage and subrogation. Another common approach is the **ratio method**, which makes use of the ratio of S&S to gross claims and then uses those ratios in conjunction with ultimate claims to estimate ultimate S&S.

The ratio method offers two distinct advantages over the development technique:

- Less leverage in development factors
- Refined selection of ultimate S&S ratios

One disadvantage of the ratio method is that an error in selecting ultimate losses will likely lead to an error in the S&S estimate as well.

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## Reinsurance

In a reinsurance contract, a primary insurer cedes some or all of its risk to a reinsurance company. There are two types of reinsurance, **quota share** and **excess of loss**.

- Quota share reinsurance is similar to the application of coinsurance. Both parties share a percentage of the total risk.
- Excess of loss reinsurance covers all claim amounts above the primary insurer's retention. This is similar to a deductible provision. There are several types:
  - Per-risk excess of loss reinsurance covers claims for a single policy.
  - Per-occurrence excess of loss reinsurance covers claims resulting from one occurrence or event that impacts multiple policies.
  - Aggregate excess of loss reinsurance covers aggregate losses within a specific policy period.

## CONSIDERATIONS FOR DATA ANALYSIS

To ensure a thorough analysis, consistent assumptions, and proper validation, actuaries should consider the following throughout the estimation process:

1. Comparing net and gross data
2. Quota share analysis
3. Excess of loss analysis
4. Consistent assumptions
5. Net claim development patterns

