Direct Your Learning

9

Casualty Excess of Loss Treaties

Educational Objectives

After learning the content of this assignment, you should be able to:

- Describe the operation, functions, and use of casualty excess of loss treaties.
- Explain how the reinsuring clause and the definitions clause are modified for use in casualty excess of loss treaties.
- Describe the purpose of the following clauses designed or adapted for casualty excess of loss treaties:
  - Retention and limits clause
  - Reinstatement clause
  - Claims and loss adjustment expense clause
  - Declaratory judgment expense clause
  - Sunset and sunrise clauses
  - Commutation clause
- Explain how casualty excess of loss treaties are priced.

Outline

Casualty Excess of Loss Treaties

9

OVERVIEW OF CASUALTY EXCESS OF LOSS TREATIES

Casualty excess of loss reinsurance covers losses arising out of the primary insurer's underlying casualty insurance policies. Casualty insurance is a type of insurance that provides coverage for bodily injury or property damage caused by the underlying insured's negligence. It includes liability insurance and other types of insurance that regulators historically did not allow to be categorized as either fire or marine insurance, such as automobile liability, general liability, employers liability, professional liability, workers compensation, and crime insurance.

Primary insurers purchase casualty excess of loss treaties to protect themselves from excessive liabilities arising from their underlying casualty insurance policies.Primary insurers can purchase casualty excess of loss reinsurance on a facultative or treaty basis; however, this discussion focuses on the operation, functions, and use of casualty excess of loss treaties.

Operation of Casualty Excess of Loss Treaties

Although the operation of casualty excess of loss treaties is practically identical to that of property per risk excess of loss treaties, the underlying characteristics of liability losses relative to property losses make casualty and property excess of loss treaties very different types of reinsurance. Liability losses involve bodily injury or property damage claims payable by the underlying insured to a third party.

Liability losses often take time to manifest and settle, resulting in a significant delay in claim resolution. In contrast, property losses involve damage, destruction, theft, or loss of use of the insured's property. These first-party losses are typically settled quickly because the insured usually knows the loss has occurred and because the value of property losses is generally easy to ascertain. As a result of these underlying differences between liability and property losses, the treaty clauses and pricing of casualty excess of loss reinsurance vary significantly from those of property per risk excess of loss reinsurance.

Functions of Casualty Excess of Loss Treaties

Casualty excess of loss treaties serve these principal functions for primary insurers:

- Increase large line capacity—Casualty excess of loss treaties enable primary insurers to issue policies with limits of liability that are larger than would otherwise be possible or acceptable. Large line capacity enables primary insurers with limited financial resources to compete more effectively in the marketplace by allowing them to provide coverage limits that underlying insureds need.
- Stabilize loss experience—A casualty excess of loss treaty reduces fluctuation in primary insurers' loss experiences by limiting the amount of loss sustained to the amount retained under the treaty. Stabilization of loss experience aids financial planning, supports growth, and can strengthen investors' confidence in primary insurers.
- Provide catastrophe protection—Clash covers, or casualty excess of loss reinsurance treaties with high attachment points, protect primary insurers from the financial consequences of a single occurrence causing multiple losses under one policy or several policies. This catastrophe protection protects primary insurers' earnings and policyholders' surplus.

Casualty Excess of Loss Treaties as Part of a Reinsurance Program

Casualty excess of loss treaties can be provided on a per policy or per occurrence basis. When provided on a per policy basis, the attachment point and reinsurance limit apply to losses arising from each policy. When provided on a per occurrence basis, the attachment point and reinsurance limit apply to losses arising from any one occurrence, regardless of the number of insureds, policies, or coverages involved. Most casualty excess of loss treaties are provided on a per occurrence basis. See the exhibit "Excess Cessions Agreements."

Excess of loss treaties are usually structured in layers. Multiple layers are used to increase the participation of reinsurers in the primary insurer's reinsurance program. The primary insurer may have a significant retention, causing the reinsurer of the first layer to expect few, if any, losses during the treaty term.

However, some excess of loss treaties are designed with a low attachment point so that the treaty is subject to losses during the treaty term. The reinsurance that applies to layers in which frequent losses are expected is called working cover. For example, the primary insurer may anticipate that a significant number of losses will occur in its $50,000 xs $50,000 and $100,000 xs $100,000 layers. Working cover layers are priced to reflect the expected loss frequency. The layer between those reinsured by the working cover and the largest liability coverage limit offered by the primary insurer is called the policy-exposed layer.

Excess Cessions Agreements

In some casualty insurance lines, particularly professional liability, umbrella, and large limit casualty policies, a reinsurance agreement may be arranged that includes characteristics of both types of treaty reinsurance—pro rata and excess of loss. This type of agreement provides for the cession of premium and limits when policies are issued above a predetermined retention by the primary insurer. Policies written by the primary insurer usually involve limits greater than $1 million in which lack of experience provides inadequate data to calculate an experience rate.

While exposure rating may be used, the primary insurer and reinsurer instead agree to "cessions factors" that are to be applied to the underlying primary insurance premium. The cessions agreement benefits the primary insurer by providing additional automatic capacity when the need arises. The reinsurer benefits by agreeing to the cessions factors that will be applied when policies with higher limits are written; these factors are typically incorporated into the reinsurance agreement. The premium is ceded similar to a pro rata agreement and often includes a provision for ceding commission on each policy ceded, while the payment of claims by the reinsurer is similar to an excess of loss agreement requiring that the reinsurer indemnify the primary insurer for all losses that exceed the specified retention.

For example, a primary insurer chooses to retain $1 million for each claim on a Medical Professional Liability policy. The primary insurer and reinsurer agree to a schedule of premium cessions factors (per varying additional excess limits) that the primary insurer cedes to the reinsurer whenever a policy including the higher limits is issued. Similar to pro rata reinsurance, the primary insurer cedes to the reinsurer the additional premium charged for the excess limit and may receive a ceding commission potentially providing surplus relief should a number of policies be ceded under the agreement. Consistent with excess of loss treaties, the reinsurer reimburses losses only after they exceed the $1 million retention and only up to the amount of the excess limit ceded.

This hybrid agreement provides the primary insurer with additional capacity to offer higher limits to its customers and allows the reinsurer an opportunity to realize an acceptable negotiated premium for policies issued at higher limits.

Used with permission from David T. Stewart. [DA09232]

Primary insurers may purchase clash cover to provide reinsurance coverage beyond the policy-exposed layer. Clash cover can provide coverage in these situations:

- Single occurrences affecting multiple insureds or multiple types of insurance
- Extra-contractual obligations (ECO)
- Excess of policy limits (XPL) losses
- Excessive loss adjustment expenses

COMMON CLAUSES MODIFIED FOR USE IN CASUALTY EXCESS OF LOSS TREATIES

Some common clauses are modified for use in casualty excess of loss treaties to provide important clarifications.

Among these modified common clauses are the reinsuring clause and the definitions clause.

The sample clauses included in this discussion are for illustrative purposes only and should not be relied on to construct an actual treaty.

Reinsuring Clause

As in property per risk excess of loss treaties, in casualty excess of loss treaties, the reinsuring clause specifies what types of insurance are covered under the treaty. Casualty excess of loss reinsurance is used to reinsure underlying casualty policies. Most casualty policies are liability policies that respond to bodily injury and property damage claims from third parties.Coverage for an underlying liability policy may be on either an occurrence or claims-made basis.

A liability policy issued on an occurrence basis responds to bodily injury and property damage that occur during the policy period. This occurrence trigger is the traditional approach used in liability policies to identify which primary insurance policy applies to a claim.

A liability policy issued on a claims-made basis responds to bodily injury and property damage for those claims first made against the underlying insured during the policy period. This claims-made trigger is the approach used in types of liability insurance that have significant delays in claim reporting and settlement (long-tail liability), such as professional liability and directors and officers liability.

The claims-made trigger makes identifying which primary insurance policy applies to a claim easier because the applicable policy is the one in force when the claim is first made. Liability policies issued on a claims-made basis have features that must be addressed in the casualty excess of loss treaty covering them.These features are usually addressed in the reinsuring clause:

Retroactive date

The date on or after which bodily injury or property damage must occur (or a personal and advertising injury offense must be committed) in order to be covered.

- **Retroactive date**—A claims-made policy may contain no retroactive date, a retroactive date that is the same as the policy inception date, or a retroactive date that is before the policy inception date. Claims-made policies may appear to limit the primary insurer's exposure to long-tail liability.However, primary insurers are still exposed to long-tail liability for several reasons. If a claims-made policy has no retroactive date, it covers any claim first made against the underlying insured during the policy's term, regardless of the occurrence date. If a claims-made policy has been in force for many years and has the original retroactive date, claims made during the current policy period for injury or damage that occurred during those prior policy periods would be covered.

- **Prior acts coverage**—A claims-made policy can be endorsed to provide coverage for prior acts. Without such a feature, an insured that is moving its insurance coverage from one primary insurer to another and cannot convince the replacement insurer to keep the original retroactive date encounters a coverage gap. Claims made during the new policy period that occurred prior to the new retroactive date would not be covered by either policy.
- **Extended reporting period (ERP)**—The length of an ERP can vary from months to years and in some cases is unlimited. If prior acts coverage or extended reporting periods are available under the underlying policies, the excess of loss treaty can cover those losses by stating that any claims made under such coverages will be covered under the treaty.

Prior acts coverage
An extension of coverage for claims that would otherwise not be covered because they occurred prior to the retroactive date of the current claims-made policy and are not covered by the prior claims-made policy.

Extended reporting period (ERP)
An additional period (also called a "tail") following the expiration of a claims-made policy, during which the expired policy will cover claims first made for injury or damage that occurred on or after the policy's retroactive date (if any) and before policy expiration.

The reinsuring clause in the exhibit includes wording for prior acts coverage and extended reporting periods. See the exhibit "Sample Reinsuring Clause."

Sample Reinsuring Clause

A. By this Contract the Reinsurer agrees to reinsure the excess liability that may accrue to the Company under its policies, contracts, and binders of insurance or reinsurance (hereinafter called "policies") in force at the effective date hereof or issued or renewed on or after that date and classified by the Company as Casualty Insurance, subject to the terms, conditions, and limitations hereinafter set forth.

B. As respects policies written on a claims-made basis, the Company may issue prior acts coverage (but for policy limits no greater than those the insured purchased from its immediately preceding carrier) and extended reporting coverage. Any claim under an extended reporting coverage provision or endorsement shall be deemed to have been reported on the day the original policy expired or was canceled. Premium, if any, for such extended reporting coverage period shall be considered fully earned by the Reinsurer on the last full day the original policy was in force.

[DA05392]

Definitions Clause

Important to include in the definitions clause of a casualty excess of loss treaty is occurrence, the definition of which depends on the underlying coverage being reinsured. These have occurrence definitions tailored to them:

- Products and completed operations coverage
- Occupational disease coverage
- Other losses coverage

Occurrence Definition for Products and Completed Operations Coverage

For products and completed operations coverage, the primary insurer may consider as one occurrence the accumulation of all injury or damage that occurs during a policy period to the same insured and results from a single cause of loss. This definition of occurrence assumes that the single cause of loss resulted from an error in manufacturing the product or performing the operation that caused injury or damage. The injury or damage may occur at any time after the single act that created the bodily injury or property damage.

For example, an animal feed manufacturer allows a feed mixture to spoil and then packages and ships the poisonous product to many cattle feedlots. Cattle become sick or die because of the improperly manufactured feed. When making a casualty excess of loss treaty claim, the feed manufacturer's insurer considers all losses from the cattle feedlots as one occurrence. The single act of packaging the spoiled feed resulted in many individual losses over a wide geographic area.

The definitions clause shown in the exhibit contains an occurrence definition providing that all products and completed operations losses will be treated as one occurrence if they arise from the same "causative agency" during the same policy period. The date of loss is the beginning of the policy period. See the exhibit "Sample Definitions Clause (Occurrence Definition for Products and Completed Operations Coverage)."

Occurrence Definition for Occupational Disease Coverage

When workers compensation policies are reinsured, the occurrence definition should address occupational disease. Occupational disease often involves more than one employee and potentially many employees. Therefore, the occurrence definition should specify whether the loss for each affected employee is considered a separate occurrence or whether the combined losses for all affected employees are considered one occurrence.

The definitions clause in the exhibit contains an occurrence definition that treats the loss for all employees as one occurrence. Other definitions clauses may specify that a separate retention and limit apply to the loss for each employee. See the exhibit "Sample Definitions Clause (Occurrence Definition for Occupational Disease Coverage)."

Sample Definitions Clause (Occurrence Definition for Products and Completed Operations Coverage)

A. "Occurrence" as used herein is defined as an accident or occurrence or a series of accidents or occurrences arising out of or caused by one event, except that:

1. As respects policies where the Company's limit of liability for Products and Completed Operations coverages is determined on the basis of the insured's aggregate losses during a policy period, all such losses proceeding from or traceable to the same causative agency shall, at the Company's option, be deemed to have been caused by one occurrence with a date of loss at the beginning of the policy period. Each renewal or annual anniversary date of the policy involved shall be deemed the beginning of a new policy period.

2. As respects Workers' Compensation and Employers Liability policies, each occupational or industrial disease case contracted by an employee of an insured shall be deemed to have been caused by a separate occurrence with a date of loss on:

   a. The date of disability for which compensation is payable if the case is compensable under the Workers' Compensation Law;

   b. The date disability due to the disease actually began if the case is not compensable under the Workers' Compensation Law;

   c. The date of cessation of employment if claim is made after employment has ceased.

3. As respects claims-made policies, an occurrence shall be deemed to have a date of loss on the date the loss is reported and/or claim is made under the original policy, except as provided in subparagraph 4 below. If the Company's losses arising out of a single occurrence are a result of more than one claim against a single insured, the Company may combine all such losses in a single occurrence, which shall be deemed to have a date of loss on the date the loss is first reported and/or claim is made under the policy or policies involved, except as provided in subparagraph 4 below.

4. As respects any extended reporting coverage provisions or endorsements under claims-made policies subject hereto, claims made against and/or reported to the Company during the extended reporting coverage period shall be deemed to have been reported on the last full day of the applicable policy period.

B. "Loss adjustment expense" means all costs and expenses allocable to a specific claim that are incurred by the Company in the investigation, appraisal, adjustment, settlement, litigation, defense, or appeal of a specific claim, including court costs and costs of supersedeas and appeal bonds, and including 1) pre-judgment interest, unless included as part of the award or judgment; 2) post-judgment interest; and 3) declaratory judgment expense and any other legal expenses and costs incurred in connection with coverage questions and legal actions connected thereto.

Loss adjustment expense does not include employee salaries, office expenses, and other overhead expenses.

[DA05393]

Sample Definitions Clause (Occurrence Definition for Occupational Disease Coverage)

"Occurrence" as used herein is defined as an accident or occurrence or a series of accidents or occurrences arising out of or caused by one event, except that as respects Workers' Compensation and Employers Liability policies, all occupational or industrial disease cases proceeding from or traceable to the same causative agency and assignable by the Company to the same policy and the same policy period shall be deemed to have been caused by one occurrence commencing at the beginning of the policy period. Each renewal or annual anniversary date of the policy involved shall be deemed the beginning of a new policy period.

[DA05394]

The date of loss for injuries sustained by an employee in the course of employment can be defined as the date of disability for which compensation is payable if covered by workers compensation law, the date disability actually began if not covered by workers compensation law, or the date of cessation of employment if the claim is made after employment has ended.

If losses for all affected employees are considered as one occurrence, the occurrence definition limits that occurrence to all cases of occupational disease occurring under the same policy and during the same policy period. The date of loss for the occurrence is the first day of the policy period.

Occurrence Definition for Other Losses Coverage

The occurrence definition for loss coverage, other than for products and completed operations or occupational diseases, may allow the primary insurer to accumulate all losses for injury or damage that occur during a continuous twelve-month period from the same event and to declare them as one occurrence. By using this definition, the primary insurer and reinsurer can avoid arguments about the number of occurrences.

For example, a sand-and-gravel-pit operator uses dynamite over several months. Cracks appear in the foundations of nearby buildings. Determining which blast caused the damage is not necessary when the occurrence definition allows damages to be accumulated.

The exhibit shows a definitions clause that may be used for this type of occurrence definition. See the exhibit "Sample Definitions Clause (Occurrence Definition for Other Losses Coverage)."

Sample Definitions Clause (Occurrence Definition for Other Losses Coverage)

As respects third-party liability insurances other than those written and rated by the Reinsured as Products Liability and/or Completed Operations Liability, said term, at the option of the Reinsured, shall also mean all injuries or damage that occur during any one continuous period of twelve months and that result in claims against the same insured as defined in the original policies of the Reinsured, resulting from:

1. Infection, contagion, poisoning, or contamination proceeding from, or traceable to, the same causative agency; or
2. A series of operations, events, or occurrences arising out of operations at one specific site and that cannot be attributed to any single one of such operations, events, or occurrences, but rather to the cumulative effect of same.

[DA05395]

CLAUSES DESIGNED OR ADAPTED FOR CASUALTY EXCESS OF LOSS TREATIES

Because they deal with liability claims, which require settlement with third-party claimants, the clauses in casualty excess of loss treaties tend to be more complex than those in property per risk excess of loss treaties. These clauses need to be specific enough to address standard coverage issues but general enough to address coverage distortions that can result when courts require coverage under policies that were not intended to provide it.

These are among the clauses that are typically designed or adapted for casualty excess of loss treaties:

- Retention and limits clause
- Reinstatement clause
- Claims and loss adjustment expense clause
- Declaratory judgment expense clause
- Sunset and sunrise clauses
- Commutation clause

The sample clauses included in this discussion are for illustrative purposes only and should not be relied on to construct an actual treaty.

Retention and Limits Clause

Retention and limits clauses establish the amount of the primary insurer's retention and the reinsurer's limit of liability. The retention and limits clause for casualty excess of loss treaties should address the possibility of a single occurrence involving multiple insureds, policies, or coverages.

Losses from multiple insureds could occur, for example, if the same insurer provided coverage for both the general contractor and the architect on a building that collapsed during construction. Losses from multiple policies could occur, for example, if the same insurer covered several automobiles involved in the same accident. Losses from multiple policies over a period of time could occur, for example, if an insured used defective cement for several years to build a dam that eventually crumbled. If the cement manufacturer's general liability policy had renewed several times during the dam's construction, a claim would likely be made against each policy that had been in effect. Losses from multiple coverages could occur, for example, if an insured automobile was involved in an at-fault accident causing bodily injury and property damage.

The retention and limits clause in the exhibit addresses multiple insureds, policies, and coverages involved in a single occurrence. The clause's definitions of retention and reinsurance limit include all of the losses sustained by the primary insurer as the result of one occurrence. Stating the retention and reinsurance limit in this manner allows the primary insurer to more easily establish the maximum loss it can sustain in a single occurrence, rather than doing so under each policy or coverage part triggered by an occurrence. See the exhibit "Sample Retention and Limits Clause."

Sample Retention and Limits Clause

The Company shall retain and be liable for the first $___500,000___ of ultimate net loss (whether involving any one or any combination of the classes of business covered hereunder, regardless of the number of policies under which such loss is payable or the number of different interests insured) arising out of each occurrence. The Reinsurer shall then be liable for the amount by which such ultimate net loss exceeds the Company's retention, but the liability of the Reinsurer shall not exceed $___1,000,000___ as respects any one occurrence.

[DA05396]

Reinstatement Clause

Although a casualty excess of loss treaty may limit the amount of coverage per occurrence, it may cover an unlimited number of occurrences during any one contract year. However, treaties with high attachment points, such as clash covers, usually specify a per occurrence limit and a maximum recovery in any one contract year. Such a treaty may have a reinstatement clause that reinstates the treaty's original per occurrence limit after a loss occurrence for a predetermined premium, subject to a maximum recovery for the contract year.

Reinstatement clauses are not as common in casualty excess of loss treaties as they are in property catastrophe treaties. Liability losses take longer to develop than property losses. Consequently, determining the percentage of the per occurrence limit that must be reinstated for a casualty excess of loss treaty is often difficult.

The exhibit shows a reinstatement clause that may appear in a clash cover. See the exhibit "Sample Reinstatement Clause."

Sample Reinstatement Clause

A. In the event all or any portion of the reinsurance hereunder is exhausted by loss, the amount so exhausted shall be reinstated immediately from the time the occurrence commences hereon. For each amount so reinstated the Company agrees to pay additional premium equal to the product of the following:

   1. The percentage of the per occurrence limit reinstated (based on the ultimate net loss paid by the Reinsurer); multiplied by
   2. The earned reinsurance premium for the contract year in which the occurrence commences (exclusive of reinstatement premium).

B. Whenever the Company requests payment by the Reinsurer of any ultimate net loss hereunder, the Company shall submit a statement to the Reinsurer of reinstatement premium due the Reinsurer. If the earned reinsurance premium for the contract year has not been finally determined as of the date of any such statement, the calculation of reinstatement premium due shall be based on the annual deposit premium and shall be readjusted when the earned reinsurance premium for the contract year has been finally determined. Any reinstatement premium shown to be due the Reinsurer as reflected by any such statement (less prior payments, if any) shall be payable by the Company concurrently with payment by the Reinsurer of the requested loss. Any return reinstatement premium shown to be due the Company shall be remitted by the Reinsurer as promptly as possible after receipt and verification of the Company's statement.

C. Notwithstanding anything stated herein, the liability of the Reinsurer hereunder for ultimate net loss shall not exceed $__3,000,000__ as respects any one occurrence, nor shall it exceed $__9,000,000__ as respects all occurrences with dates of loss during any one contract year.

[DA05397]

The reinstatement clause addresses these provisions:

- Reinsurer's maximum liability
- Automatic reinstatement of the per occurrence limit
- Reinstatement premium

Contract year limit

The reinsurer's maximum liability for any one contract year for all losses arising out of all occurrences with dates of loss during that contract year.

Reinsurer's Maximum Liability

A **contract year limit**, also called an aggregate limit, is usually a multiple of the per occurrence limit and can be as high as four or more times the per occurrence limit. For example, a treaty that allows three full reinstatements would have a contract year limit of four times the per occurrence limit (the original limit plus the three full reinstatements). The primary insurer and reinsurer negotiate the number of full reinstatements.

Automatic Reinstatement of the Per Occurrence Limit

If the casualty excess of loss treaty has both per occurrence and contract year limits, each loss during the contract year reduces the available per occurrence limit and the contract year limit. For example, if the occurrence limit is $3 million and the contract year limit is $9 million, a $400,000 loss to the treaty reduces the $3 million occurrence limit to $2.6 million for any other losses from the same occurrence. The $9 million contract year limit is reduced to $8.6 million for any other occurrences with dates of loss during the contract year.

The reinstatement clause provides for the automatic reinstatement of the per occurrence limit as long as the contract year limit has not been exceeded during the contract year. The exhibit shows how a series of losses during one contract year reduces the contract year limit until the occurrence limit cannot be reinstated. See the exhibit "Immediate Reinstatement."

Immediate Reinstatement

	Per Occurrence Limit	Contract Year Limit
	$3,000,000	**$9,000,000**
Occurrence 1 Loss $1,000,000	$2,000,000	$8,000,000
Immediate Reinstatement	$3,000,000	$8,000,000
Occurrence 2 Loss $3,000,000	$0	$5,000,000
Immediate Reinstatement	$3,000,000	$5,000,000
Occurrence 3 Loss $2,000,000	$1,000,000	$3,000,000
Immediate Reinstatement	$3,000,000	$3,000,000
Occurrence 4 Loss $3,000,000	$0	$0

[DA05398]

Reinstatement Premium

In clash covers, the primary insurer may not be required to pay a reinstatement premium for one or more of the reinstatements provided. However, if a reinstatement premium exists, it will be based on the percentage of the reinsurer's per occurrence limit that is reinstated. This is how the reinstatement premium is calculated:

$$\text{Reinstatement premium} = \text{Percentage of the per occurrence limit reinstated} \times \text{Earned reinsurance premium for the contract year}$$

The reinstatement premium amount is pro rata regardless of the time remaining in the contract year; this is often referred to in the treaty contract as "pro rata as to amount and 100 percent as to time." For example, assume that the reinsurer's per occurrence limit is $3 million and that there is a loss of $1.8 million. This means that 60 percent of the per occurrence limit is reinstated. Therefore, a factor of 60 percent would apply in the reinstatement premium calculation to reflect the amount of per occurrence limit being reinstated.

The reinstatement premium is typically paid when the reinsurer settles the loss because the exact amount of the loss, and therefore the exact amount of the per occurrence limit to be reinstated, cannot be calculated until the loss is actually settled. If the final reinsurance premium for the contract year is not known at the time the reinstatement premium is paid, an estimated premium or the deposit premium can be used to calculate the reinstatement premium.

Claims and Loss Adjustment Expense Clause

The claims and loss adjustment expense clause states the circumstances under which the primary insurer must report and the reinsurer must pay a liability claim, and how loss adjustment expense will be handled. See the exhibit "Sample Claims and Loss Adjustment Expense Clause."

The claims and loss adjustment expense clause addresses these areas:

- Reporting claims
- Binding the reinsurer to the primary insurer's settlement
- Sharing loss adjustment expenses

The first area that the claims and loss adjustment expense clause addresses is reporting claims. The primary insurer is required to report to the reinsurer any claims that exceed its retention. The "Sample Claims and Loss Adjustment Expense Clause" exhibit also requires a claim to be reported when the claim reserve exceeds 50 percent of the retention or when specified serious injury occurs, regardless of the amount of the primary insurer's loss reserve.

Claims meeting the reporting requirements often develop to the point at which the excess of loss treaty is involved. Although the 50 percent of retention trigger in the exhibit is a common percentage requirement, the percentage is often modified.

Sample Claims and Loss Adjustment Expense Clause

A. Whenever a claim is reserved by the Company for an amount greater than 50% of its retention hereunder and/or whenever a claim appears likely to result in a claim under this Contract, the Company shall notify the Reinsurer. Further, the Company shall notify the Reinsurer whenever a claim involves a fatality, amputation, spinal cord injury, brain damage, blindness, extensive burns, or multiple fractures, regardless of liability, if the policy limits or statutory benefits applicable to the claim are greater than the Company's retention hereunder. (These are also known as significant injury criteria.) Inadvertent omission or oversight in dispatching such advices shall in no way affect the liability of the Reinsurer. However, the Company shall notify the Reinsurer of such omission or oversight promptly upon its discovery. The Reinsurer shall have the right to participate, at its own expense, in the defense or control of any claim or suit or proceeding involving this reinsurance.

B. All claim settlements made by the Company, provided they are within the terms of this Contract, shall be binding upon the Reinsurer, and the Reinsurer agrees to pay all amounts for which it may be liable upon receipt of reasonable evidence of the amount paid by the Company.

C. In the event of loss hereunder, loss adjustment expense incurred by the Company in connection therewith that does not reduce the Company's limit of liability under the policy involved shall be shared by the Company and the Reinsurer in the proportion that the ultimate net loss paid or payable by the Reinsurer bears to the total loss paid or payable by the Company, prior to any reinsurance recoveries, but after deduction of all salvage, subrogation, and other recoveries. However, if a verdict or judgment is reduced by any process other than by the trial court, resulting in an ultimate savings to the Reinsurer, or a judgment is reversed outright, the expenses incurred in securing such reduction or reversal shall be shared by the Company and the Reinsurer in the proportion that each benefits from such reduction or reversal, and the expenses incurred up to the time of the original verdict or judgment which do not reduce the Company's limit of liability under the policy involved shall be shared in proportion to each party's interest in such original verdict or judgment. The Reinsurer's liability for such loss adjustment expense shall be in addition to its liability for ultimate net loss.

[DA05400]

The exhibit also provides that delayed notice does not release the reinsurer from its liability under the treaty if the reporting delay is accidental. Although reporting delays do not void reinsurance coverage, the reinsurer could be prejudiced by the primary insurer's failure to give notice in time for the reinsurer to participate in the claim's defense. As a result, a primary insurer may have to arbitrate coverage with the reinsurer. To avoid this, once the primary insurer discovers that it has failed to report a claim, it should inform the reinsurer immediately. The reinsurer could deny liability if the initial error is compounded by further delay.

After being notified of the claim, the reinsurer has the right to participate in the claim's defense at its own expense. The primary insurer's claim staff may welcome the expertise of the reinsurer's claim staff, particularly regarding complex claims.

The second area that the claims and loss adjustment expense clause addresses is binding the reinsurer to the primary insurer's claim settlement. It states that the reinsurer must respond promptly to the primary insurer's payment requests once the primary insurer has paid the claim and provided the reinsurer with proof of payment. This provision should eliminate disputes between the reinsurer and the primary insurer about the reinsurer's liability and payment schedule.

The third area that the claims and loss adjustment expense clause addresses is sharing loss adjustment expenses. Loss adjustment expenses can be included as part of the loss for the purpose of applying the retention and the reinsurance limit, or they can be shared in the proportion that the primary insurer and reinsurer share the loss. The "Sample Claims and Loss Adjustment Expense Clause" exhibit depicts the latter approach.

Declaratory Judgment Expense Clause

In a declaratory judgment action, the insurer (or insured) presents a coverage question to the court and asks the court to declare the rights of the parties under the applicable insurance policy. The coverage question might involve whether there has been an occurrence, whether an exclusion applies, or whether the insurer is obligated to defend the insured in a specific situation. The declaratory judgment action's purpose is to resolve such questions of coverage, not to enforce the contract.

A typical reinsurance question pertaining to a declaratory judgment action is whether the primary insurer's legal expenses for the action are covered under the reinsurance treaty. These expenses may be significant, and there is limited case law on whether they are covered if they are not specifically addressed by the treaty.

These arguments support coverage for such legal expenses:

- Declaratory judgment expenses are like any other claim-related loss adjustment expense.
- The reinsurer benefits from successful declaratory judgment actions.
- The "follow the fortunes" doctrine requires coverage for declaratory judgment expenses.[1]

Arguments against coverage for declaratory judgment expenses include these:

- Declaratory judgment expenses are not the result of claim handling but of an adversarial proceeding and therefore are not loss adjustment expenses.
- The treaty does not explicitly state that declaratory judgment expenses are covered.
- The "follow the fortunes" doctrine cannot create coverage where none exists.[2]

Reinsurers and primary insurers now frequently resolve this issue during treaty negotiations. This is particularly true when reinsurance covers liability insurance because declaratory judgment actions are more common in liability insurance than in property insurance. If declaratory judgment expenses are to be covered, the most common method is to include these expenses in the definition of loss adjustment expense so that both are treated in the same manner. Alternatively, the treaty can contain a separate declaratory judgment expense clause that states that the primary insurer's legal expenses in respect to a declaratory judgment action are covered by the treaty.

Sunset and Sunrise Clauses

The sunset clause limits the time after the treaty's expiration during which occurrences can be reported to the reinsurer. The time limit negotiated may be a period of months or years. Reinsurers use the sunset clause to help control long-tail liability claims. If no occurrences are reported to the reinsurer within the sunset period, the reinsurer can close out the treaty knowing that no additional losses will have to be covered. Sometimes, the sunset clause applies to each contract year of the reinsurance agreement.

The sunset terms can be a separate clause or part of another clause, such as the retention and limits clause or the claims and loss adjustment expense clause. The exhibit shows an example of a separate sunset clause. See the exhibit "Sample Sunset Clause."

Sample Sunset Clause

68 A

SUNSET

Notwithstanding Errors and Omissions provisions, if any, to the contrary, coverage hereunder shall apply only to losses reported by the Company to the Reinsurer within _______ years from the expiration of this Contract.

Source: Brokers & Reinsurance Markets Association (BRMA), www.brma.org/frommembers/contractword/Sunset%20BRMA%2068A-D.doc (accessed November 26, 2012). [DA05401]

Reinsurance coverage is not available for losses unless they are reported before the sunset period expires. Primary insurers can purchase reinsurance, called sunrise coverage, to cover those losses. The sunrise clause restores the coverage lost because of the operation of a sunset clause.

Sunrise coverage can be provided using two methods. The first is for the reinsurer to amend the sunset period in the existing treaty to extend the duration of coverage in return for an additional premium. The second is for the reinsurer to add wording to a new treaty to cover losses not covered because of the sunset clause. The exhibit is an example of a sunrise clause that could be added to a new treaty. See the exhibit "Sample Sunrise Clause."

Sample Sunrise Clause

This Contract shall become effective on January 1, 20X4, with respect to claims made on or after that date as respects occurrences with dates of loss during the period January 1, 20X3, through December 31, 20X3, that would have otherwise been covered under the Company's Casualty Excess of Loss Reinsurance Contract, effective January 1, 20X3, were it not for the provisions of the Sunset Article as set forth in the above-mentioned contract, and shall continue in force thereafter until terminated.

[DA05402]

Commutation Clause

The commutation clause allows the primary insurer and reinsurer to close out liability for claims under the treaty after a stated time period from treaty expiration. This clause allows the reinsurer to determine its ultimate loss costs within a shorter period than if claims were allowed to develop over fifteen to twenty years or more. The commutation clause establishes the earliest point at which a commutation request can be contractually made. It also defines how an actuary or appraiser can determine ultimate costs and whether the actuary's or appraiser's recommendations are binding. Commutation clauses can be general and simple, or they can be specific and complex. See the exhibit "Sample Commutation Clause."

The commutation clause usually neither requires commutation nor specifies how to determine the claim's settlement value. Instead, it creates a general framework for the primary insurer and reinsurer to commute losses. To negotiate a settlement, the primary insurer and reinsurer should be comfortable with the reserve levels, claim handling controls, and probable settlement pattern.

Sample Commutation Clause

11 A
COMMUTATION

Either the Reinsurer or the Company may request commutation of that portion of any excess loss hereunder represented by any outstanding claim or claims after _____ years from the date of an occurrence. If both parties desire to commute a claim or claims, then within sixty (60) days after such agreement, the Company shall submit a statement of valuation of the outstanding claim or claims showing the elements considered reasonable to establish the ultimate net loss and the Reinsurer shall pay the amount requested.

If agreement, as outlined in the paragraph above, cannot be reached, the effort can be abandoned or alternately the Company and the Reinsurer may mutually appoint an actuary or appraiser to investigate, determine and capitalize such claim or claims. If both parties then agree, the Reinsurer shall pay its proportion of the amount so determined to be the capitalized value of such claim or claims.

If the parties, as outlined in the paragraphs above, fail to agree, they may abandon the effort or they may agree to settle any difference using a panel of three actuaries, one to be chosen by each party and the third by the two so chosen. If either party refuses or neglects to appoint an actuary within _____ days, the other party may appoint two actuaries. If the two actuaries fail to agree on the selection of a third actuary within _____ days of their appointment, each of them shall name two, of whom the other shall decline one and the decision shall be made by drawing lots. All the actuaries shall be regularly engaged in the valuation of Workers' Compensation claims and shall be Fellows of the Casualty Actuarial Society or of the American Academy of Actuaries. None of the actuaries shall be under the control of either party to this Contract.

Each party shall submit its case to its actuary within _____ days of the appointment of the third actuary. The decision in writing of any two actuaries, when filed with the parties hereto, shall be final and binding on both parties. The expense of the actuaries and of the commutation shall be equally divided between the two parties. Said commutation shall take place in ___*(City, State)*___, unless some other place is mutually agreed upon by the Company and the Reinsurer.

Source: Brokers & Reinsurance Markets Association (BRMA), www.brma.org/frommembers/contractword/Commutation%20BRMA%2011A-E.doc (accessed November 26, 2012). [DA05403]

CASUALTY EXCESS OF LOSS TREATY PRICING

Casualty excess of loss treaties are priced using the same methods used for property per risk excess of loss treaties.

The two primary methods used to price casualty excess of loss treaties are exposure ~~rating and experience~~ rating. Reinsurers usually use both methods and select the reinsurance rate that appears appropriate for the insurance risk assumed.

Exposure Rating

The first method used to price casualty excess of loss treaties is exposure rating. Exposure rating uses insurance industry loss data for reinsurance pricing rather than the primary insurer's loss experience.

In the fictitious example, assume that Sisterdale Insurance Company (Sisterdale) is selling a new insurance product, so it has no loss experience to establish a casualty excess of loss treaty price. The exhibit shows a summary of the proposed casualty excess of loss treaty. See the exhibit "Sisterdale Insurance Company Proposed Casualty Excess of Loss Reinsurance Treaty."

Sisterdale Insurance Company Proposed Casualty Excess of Loss Reinsurance Treaty

Underlying Insurance Covered:	Private Passenger Automobile Liability	
Basis:	Combined Single Limit, Bodily Injury and Property Damage, Each Occurrence	
Proposed Reinsurance Coverage (3 layers):	$50,000 xs $50,000 $400,000 xs $100,000 $500,000 xs $500,000	
Maximum Limit Policy:	$500,000	
Estimated Subject Premium at Various Policy Limits:	Policy Limit	Estimated Subject Premium
	$ 35,000	$ 2,000,000
	50,000	3,000,000
	100,000	3,000,000
	200,000	200,000
	300,000	1,000,000
	400,000	100,000
	500,000	700,000
Total Estimated Subject Premium:		$10,000,000
Ceding Commission:	0%	
Reinsurance Brokerage:	10%	

[DA05404]

In the accompanying exhibit, the process that Sisterdale's reinsurer uses to calculate the indicated exposure rate for the $50,000 xs $50,000 layer in its casualty excess of loss treaty is shown. See the exhibit "Sisterdale Insurance Company Calculation of Indicated Exposure Rate for the $50,000 xs of $50,000 Layer."

Sisterdale Insurance Company Calculation of Indicated Exposure Rate for the $50,000 xs of $50,000 Layer

(1) Policy Limit	(2) Increased Limit Factor	(3) Estimated Subject Premium	(4) Premium Fraction Ceded Excess of $50,000	(5) Premium Fraction Ceded Excess of $100,000	(6) Premium Ceded Excess of $50,000	(7) Premium Ceded Excess of $100,000	(8) Premium for Layer $50,000 xs $50,000
$ 35,000	1.00	$ 2,000,000	0	0	$ 0	$ 0	$ 0
$ 50,000	1.14	3,000,000	0	0	0	0	0
$100,000	1.30	3,000,000	130−114 16/130	0	369,231	0	369,231
$200,000	1.43	200,000	143−114 29/143	143−130 13/143	40,559	18,182	22,377
$300,000	1.49	1,000,000	149−114 35/149	149−130 19/149	234,899	127,517	107,382
$400,000	1.52	100,000	152−114 38/152	152−130 22/152	25,000	14,474	10,526
$500,000	1.55	700,000	155−114 41/155	155−130 25/155	185,161	112,903	72,258
TOTAL		$10,000,000			$854,850	$273,076	$581,774

(9)	Percentage of Estimated Subject Premium	5.82%
(10)	To Adjust to Net of Expenses	65%
(11)	Adjusted Percentage of Estimated Subject Premium (9) × (10)	3.78%
(12)	Allocated Loss Adjustment Expense Loading	10%
(13)	Reinsurer's Expected Loss Cost (11) ÷ 1–(12)	4.20%
(14)	Reinsurer's Loading Factor for Brokerage, Internal Expenses, and Profit and Contingencies	25%
(15)	Indicated Exposure Rate (13) ÷ 1–(14)	5.60%

[DA05405]

Column (1) of the "Sisterdale Insurance Company Calculation of Indicated Exposure Rate" exhibit lists the policy limits that Sisterdale proposes to provide, and Column (3) shows the estimated subject premium amounts that Sisterdale has projected that it will receive at each of the policy limits. Column (2) provides the increased limit factors that are developed by insurance advisory organizations to price coverage beyond basic policy limits. The increased limit factors reflect industry loss experience for providing liability insurance limits above basic policy limits. See the exhibit "Increased Limit Factors."

Increased Limit Factors

Primary insurers price liability policies by determining the applicable basic rate (for basic coverage limits) and applying the appropriate increased limit factor for the coverage limits desired. Insurance advisory organizations collect premium and loss data to make the increased limit factors credible for primary liability policy pricing. Increased limit factors are also useful to reinsurers in calculating the portion of the underlying insurance premium associated with a reinsurance layer.

[DA09180]

Column (2) also shows that $35,000 is the basic policy limit because the increased limit factor is 1.00. Policies with a $50,000 policy limit are priced using the basic policy limit rates and increased by a factor of 1.14. The 14 percent increase in the basic limit premium compensates the primary insurer for losses that exceed $35,000, based on industry-wide loss data.Similarly, a factor of 1.55 is used to increase basic policy limit rates for a policy with a $500,000 liability limit. Relative to a policy with a $35,000 liability limit, the $500,000 liability policy provides more than fourteen times the amount of coverage for only an additional 55 percent in premium. The reason for this relatively small charge for higher policy limits is that the probability of losses exceeding the basic policy limits is relatively remote.

Columns (4) and (5) are fractions that are used in columns (6) and (7), respectively, to calculate how much of the projected premium shown in Column (3) is applicable to losses between $50,000 and $100,000 so that the first layer ($50,000 xs $50,000) of Sisterdale's casualty excess of loss treaty can be priced.

The fractions shown in columns (4) and (5) represent the difference between the increased limit factor for the applicable policy limit and the increased limit factor for the underlying coverage (1.14 for underlying coverage of $50,000 and 1.30 for underlying coverage of $100,000) divided by the increased limit factor for the policy limit.

For simplicity, all amounts have been multiplied by 100.For example, consider a policy limit of $300,000 and an underlying coverage of $100,000. The increased limit factors for these amounts are 1.49 and 1.30, respectively. Therefore, the premium fraction ceded is 100 × [(1.49 – 1.30)/1.49], or 19/149. When that factor is applied to the written premium of $1,000,000, the result is $127,517, as shown in column (7).

The exhibit uses the increased limit factors to determine the total premium dollars excess of $50,000 and excess of $100,000. Column (8) shows the amount of premium in a layer of $50,000 xs $50,000, which is the difference between the amount in column (6) and the amount in column (7).

The premiums in the exhibit are written premiums that anticipate claim payments and expenses. Because the primary insurer does not receive a ceding commission, its expense portion of the premium is deducted to determine the premium ceded. Exact expense factors vary, but assume in this case that these are the expenses:

Agents' Commissions	15%
Internal Expenses	10%
Boards, Bureaus, and Taxes	5%
Profit and Contingencies	5%
TOTAL	35%

Consequently, the percentage premium ceded to the reinsurer for the $50,000 excess of $50,000 layer is 65 percent (100 percent – 35 percent) of the amount shown in column (8), or 3.78 percent of the total subject premium. The reinsurer expects the primary insurer's loss ratio to be 65 percent.

In addition to the increased limit factors, the reinsurance underwriter considers these factors that modify the reinsurance rate when exposure rating is used to price casualty excess of loss treaties:

- Allocated loss adjustment expenses
- Reinsurer's expenses
- Extra-contractual obligations and excess of policy limits coverage
- Clash cover
- Policy limit mix

Allocated Loss Adjustment Expenses

The first additional factor that reinsurance underwriters consider is allocated loss adjustment expenses. Reinsurance treaties typically indemnify the primary insurer for allocated loss adjustment expenses, either on a pro rata basis according to the proportion of the indemnity loss paid by the reinsurer, or as an addition to the total amount of indemnity paid. Increased limit factors do not include a loading for allocated loss adjustment expense, but rather include all of the allocated loss adjustment expense to the basic limit portion of the premium.

Consequently, the reinsurer needs to include in the reinsurance premium an estimate of those allocated loss adjustment expenses if loss adjustment expenses are paid in addition to the indemnity loss payments.In the "Sisterdale Insurance Company Calculation of Indicated Exposure Rate" exhibit, an allocated loss adjustment expense loading of 10 percent is applied to the adjusted percentage of estimated subject premium to determine the reinsurer's expected loss cost.

Reinsurer's Expenses

The second additional factor that reinsurance underwriters consider is the reinsurer's expenses. As with primary insurance rates, reinsurance rates must reflect expenses. For a reinsurer, those expenses include ceding commissions, brokerage, the reinsurer's internal expenses, a profit and contingency loading, and the reinsurer's net retrocessional cost, if any.In the "Sisterdale Insurance Company Calculation of Indicated Exposure Rate" exhibit, a reinsurer's expenses loading of 25 percent is applied to the reinsurer's expected loss cost to determine the indicated exposure rate.

Extra-Contractual Obligations and Excess of Policy Limits Coverage

The third additional factor that reinsurance underwriters consider is extra-contractual obligations (ECO) and excess of policy limits (XPL) coverage. If either of these is to be provided by the reinsurance treaty, the reinsurer needs to include a charge for these additional potential sources of loss.The "Sisterdale Insurance Company Calculation of Indicated Exposure Rate" exhibit does not include such a charge.

Clash Cover

The fourth additional factor that reinsurance underwriters consider is clash cover. The treaty may provide reinsurance of an accumulation of net retentions resulting from a single occurrence that affects multiple insureds and multiple types of insurance. The reinsurance underwriter typically adjusts the exposure rate to reflect this loss potential, if applicable.No such adjustment is made in the "Sisterdale Insurance Company Calculation of Indicated Exposure Rate" exhibit.

Policy Limit Mix

The fifth additional factor that reinsurance underwriters consider is policy limit mix. If the casualty excess of loss treaty is provided on a flat rate, the reinsurer will want to periodically review the mix of policy limits being sold. If the actual policy limit distribution varies from the primary insurer's projections, it will affect the reinsurer's potential liability and the accuracy of the reinsurer's pricing. The reinsurer's loss ratio may not reflect that difference until a considerable length of time has elapsed.

One solution to this problem is to cede premiums to the reinsurer based on the actual policy limits sold rather than on an estimate. The primary insurer reports each month's actual written premiums for each policy limit category and pays a premium based on a separate rate (called a cessions factor) for each policy limit category.

Another solution is to develop an average rate for the lower levels of reinsurance coverage that are expected to generate a predictable flow of losses. That rate could be adjusted retrospectively at some future date on the basis of the reinsurer's actual losses. This solution involves the experience rating method of casualty excess of loss treaty pricing.

Experience Rating

The second method used to price casualty excess of loss treaties is experience rating. The goal of experience rating is to determine a loss cost rate for a future period that is based on actual past losses and the related subject premiums. This experience rate can then be compared with the exposure rate.

Assume Sisterdale has been developing a portfolio of private passenger automobile insurance for four years. During that time, numerous losses have been sustained, as shown in the exhibit. In the trending of losses, an inflation rate of 6 percent is used. An experience rate for 20X5 will be projected. See the exhibit "Sisterdale Insurance Company Large Loss Listing $25,000 or More."

Trend factors apply to the entire loss amount, not just to the portion that lies within the $50,000 xs $50,000 layer. Some losses that did not exceed the attachment point as incurred—such as claim numbers 972, 973, and 975—did exceed the attachment point after application of the trend factor. Other losses, such as claim numbers 971, 977, and 979, were within the $50,000 xs $50,000 layer on a nominal basis, but exceeded the layer after application of the trend factor.

Overall, losses in 20X4 increased as shown:

	Before Trending	After Trending	Increase
20X4 Incurred Losses	$1,003,100	$1,127,082	12.4%
20X4 Nominal Losses	$378,500	$431,462	14.0%

Gross losses increased by 12.4 percent, but excess losses increased by 14 percent of the nominal values. Therefore, the reinsurer was more adversely affected by inflation than was the primary insurer.

Some delay usually occurs in reporting losses, particularly in liability and workers compensation insurance. Also, the ultimate values of some losses can be initially underestimated. The delay in loss reporting and underestimation of reported losses causes an increase of aggregate loss reserves over time, known as loss development. The exhibit shows the typical development of a single loss as it may be recorded on the accounting records of the primary insurer and the reinsurer. See the exhibit "Value of a Single Loss."

If a primary insurer has sufficient loss data to determine a credible loss development pattern, the next step in experience rating is to chart the loss development to estimate changes in loss reserves from year to year as they approach their ultimate values. Schedule P of a primary insurer's NAIC Annual Statement is a collection of such charts, or "triangles," that are used as a measure of the insurer's loss reserve adequacy. Those estimates are then used to project the claims' future values.

The primary insurer's historical loss information is often insufficient to establish a credible projection. In such cases, industry loss development information may be used to establish the loss development patterns needed to

Sisterdale Insurance Company Large Loss Listing $25,000 or More

(1) Year	(2) Claim No.	(3) Incurred Losses*	(4) $50,000 xs $50,000 Nominal Losses	(5) Trend Factor	(6) Trended Losses**	(7) $50,000 xs $50,000 Trended Losses
20X1	970	$ 125,000	$ 50,000	$(1.06)^5$	$ 167,278	$ 50,000
	971	75,000	25,000	$(1.06)^5$	100,367	50,000
	972	45,000	0	$(1.06)^5$	60,220	10,220
	973	37,400	0	$(1.06)^5$	50,050	50
	974	120,000	50,000	$(1.06)^5$	160,587	50,000
	975	47,000	0	$(1.06)^5$	62,897	12,897
	976	152,000	50,000	$(1.06)^5$	203,410	50,000
	977	83,000	33,000	$(1.06)^5$	111,073	50,000
	978	170,000	50,000	$(1.06)^5$	227,498	50,000
	979	78,000	28,000	$(1.06)^5$	104,382	50,000
	980	74,500	24,500	$(1.06)^5$	99,698	49,698
		$1,006,900	$310,500		$1,347,460	$422,865
20X2	981	$ 78,000	$ 28,000	$(1.06)^4$	$ 98,473	$ 48,473
	982	87,000	37,000	$(1.06)^4$	109,835	50,000
	983	58,000	8,000	$(1.06)^4$	73,224	23,224
	984	193,000	50,000	$(1.06)^4$	243,658	50,000
	985	79,000	29,000	$(1.06)^4$	99,736	49,736
	986	83,000	33,000	$(1.06)^4$	104,786	50,000
	987	120,000	50,000	$(1.06)^4$	151,497	50,000
	988	78,000	28,000	$(1.06)^4$	98,473	48,473
	989	65,000	15,000	$(1.06)^4$	82,061	32,061
	990	72,500	22,500	$(1.06)^4$	91,530	41,530
	991	83,500	334,500	$(1.06)^4$	105,417	50,000
		$ 997,000	$334,000		$1,258,690	$493,497
20X3	992	$ 67,000	$ 17,000	$(1.06)^3$	$ 79,798	$ 29,798
	993	98,000	48,000	$(1.06)^3$	116,720	50,000
	994	153,000	50,000	$(1.06)^3$	182,225	50,000
	995	88,000	38,000	$(1.06)^3$	104,809	50,000
	996	110,000	50,000	$(1.06)^3$	131,012	50,000
	997	82,000	32,000	$(1.06)^3$	97,663	47,663
	998	90,000	40,000	$(1.06)^3$	107,191	50,000
	999	41,000	0	$(1.06)^3$	48,832	0
	1000	112,000	50,000	$(1.06)^3$	133,394	50,000
		$ 841,000	$ 325,000		$1,001,644	$ 377,461
20X4	1001	$ 81,000	$ 31,000	$(1.06)^2$	$ 91,012	$ 41,012
	1002	91,500	41,500	$(1.06)^2$	102,809	50,000
	1003	61,000	11,000	$(1.06)^2$	68,540	18,540
	1004	119,000	50,000	$(1.06)^2$	133,708	50,000
	1005	151,600	50,000	$(1.06)^2$	170,338	50,000
	1006	93,000	43,000	$(1.06)^2$	104,495	50,000
	1007	110,000	50,000	$(1.06)^2$	123,596	50,000
	1008	84,000	34,000	$(1.06)^2$	94,382	44,382
	1009	69,000	19,000	$(1.06)^2$	77,528	27,528
	1010	44,000	0	$(1.06)^2$	49,438	0
	1011	99,000	49,000	$(1.06)^2$	111,236	50,000
		$1,003,100	$ 378,500		$1,127,082	$ 431,462
Overall Total			$1,348,000			$1,725,285

* Includes the total amount of loss sustained by the primary insurer before taking into account the recoverable reinsurance. Losses include loss adjustment expenses.

** Rounded

[DA05411]

Value of a Single Loss

	12/31/X1	12/31/X2	12/31/X3	12/31/X4 (settled)	12/31/X5
Value of loss occurring during 20X0	0	39,000	58,000	65,000	65,000
Percentage increase from initial value		N/A	48.7%	66.7%	66.7%
Value to layer $50,000 xs $50,000	0	0	8,000	15,000	15,000
Percentage increase from initial value		N/A	N/A	87.5%	87.5%

[DA05414]

achieve an acceptable level of data credibility. This approach reflects a combination of loss exposure and experience rating.

The cumulative effect of loss development and the method of estimating the ultimate value is shown in the exhibit. See the exhibit "Sisterdale Insurance Company Loss Development Using Age-to-Age Development Factors."

The age-to-age development factors are constructed by dividing each accident year's incurred losses at a point in time by that same accident year's incurred losses at the immediately preceding point in time, as in this example:

Age-to-age development factor (20X1: Years 1–2)
= 20X1 incurred losses at age 2 ÷ 20X1 incurred losses at age 1
= 353,778 ÷ 298,463
= 1.185

The resulting age-to-age development factors are averaged, and an appropriate factor is selected to adjust for any anomalies in the data.For the final time period, a tail factor is either selected from appropriate industry statistics or estimated. In this case, the tail factor was estimated using one-half of the previous increment (0.163 × 0.5 = 0.082). See the exhibit "Tail Factors."

The age-to-ultimate factors are calculated backwards from the final time period. For the final period, the age-to-ultimate factor is set at the selected age-to-age factor for that period.Then each age-to-ultimate factor is calculated by multiplying the proceeding period's age-to-ultimate factor by the selected age-to-age factor for the current period, as in this example:

Age-to-ultimate factor Years 3–4
= Age-to-ultimate factor Year 4 × Selected age-to-age factor Years 3–4
= 1.082 × 1.163
= 1.258

Sisterdale Insurance Company Loss Development Using Age-to-Age Development Factors

Incurred Losses

Accident Year	Age 1	2	3	4
20X1	$298,463	$353,778	$363,671	**$422,865**
20X2	$380,670	$473,231	**$493,497**	
20X3	$322,064	**$377,461**		
20X4	**$431,462**			

Bold figures are the trended $50,000 xs $50,000 totals from "Sisterdale Insurance Company Large Loss Listing $25,000 or More" exhibit.

Age-to-Age Development Factor Calculation

Accident Year	Age 1–2	2–3	3–4	4
20X1	1.185	1.028	1.163	
20X2	1.243	1.043		
20X3	1.172			
20X4				
Average	1.200	1.036	1.163	Tail
Selected	1.200	1.036	1.163	1.082
Age-to-Ultimate Factor	1.564	1.303	1.258	1.082

Loss Development

Year	20X4	20X3	20X2	20X1	Total
Current Loss	$431,462	$377,461	$493,497	$422,865	$1,725,285
Age-to-Ultimate Factor	1.564	1.303	1.258	1.082	–
Ultimate Loss (Current loss × Age-to-ultimate factor)	$674,807	$491,832	$620,819	$457,540	$2,244,998
IBNR* (Ultimate current)	$243,345	$114,371	$127,322	$34,675	$519,713

* Incurred but not reported (Ultimate loss-current loss)

[DA05415]

The aggregate losses for each year of development are recast to reflect the probable loss development to their ultimate aggregate value. This is done by multiplying the most recent valuation of actual losses incurred in each year of development by the applicable age-to-ultimate factor, as in this example:

20X4 Ultimate loss = 20X4 Current loss × Age-to-ultimate factor Years 1–2
= $431,462 × 1.564
= $674,807

> **Tail Factors**
>
> Analysts and others use loss development triangles to estimate the ultimate value of losses. In liability insurance, typically only a limited number of years worth of development data are available. In those situations, the analyst selects a factor to estimate the amount of development expected beyond the range of the loss development triangle. This factor is called a tail factor. In the "Sisterdale Insurance Company Loss Development Using Age-to-Age Development Factors" exhibit, the tail factor represents the expected development from age 4 to ultimate. Several methods can be used to estimate a tail factor. Some of those methods are beyond the scope of this text.

[DA05418]

The difference between the current value of the losses and their ultimate value is the incurred but not reported (IBNR) reserve, as in this example:

20X4 IBNR	=	20X4 Ultimate loss – 20X4 Current loss
	=	$674,807 – $431,462
	=	$243,345

Estimated subject premium for this future period must reflect changes in manual rates and exposure units. Sisterdale's records of rate changes can be used to adjust past premiums for current conditions. Broad economic data can be used to adjust for changes in exposure units to which the rates have been applied. The combined effect of those adjustments results in premium on-level factors with which the reinsurance underwriter can estimate an appropriate adjusted subject premium to be used for the period being priced.

The exhibit displays the loss cost rate and experience rate calculations for Sisterdale. See the exhibit "Sisterdale Insurance Company Experience Rate Calculation."

Reinsurance Rate Evaluation and Selection

The reinsurance underwriter usually considers the result from each pricing method and selects a reinsurance rate that fits the insurance risk of the underlying policies and current reinsurance market conditions.

In Sisterdale's case, the exposure rate is 5.60 percent, and the experience rate is 6.93 percent, as shown in the "Sisterdale Insurance Company Calculation of Indicated Exposure Rate for the $50,000 xs of $50,000 Layer" exhibit and the "Sisterdale Insurance Company Experience Rate Calculation" exhibit, respectively.

Frequently, the two methods result in different rates. The reinsurer then attempts to reconcile the different rates to determine the best reinsurance price. No generally accepted method accomplishes this reconciliation.

Sisterdale Insurance Company Experience Rate Calculation

(1) Accident Year	(2) Adjusted Subject Premium	(3) Trended Excess Losses at 12/31/X1***	(4) Age-to-Ultimate Development Factor****	(5) Developed Ultimate Net Loss [(3) × (4)]	(6) Estimated Loss Cost Rate [(5) ÷ (2)]
20X1	$10,000,000	$422,865	1.082	$ 457,540	4.58%
20X2	11,500,000	$493,497	1.258	620,819	5.40%
20X3	13,000,000	$377,461	1.303	491,832	3.78%
20X4	13,500,000	$431,462	1.564	674,807	5.00%
Total	$48,000,000			$2,244,998	4.68% Avg.*†
Loss Adjustment Expense Loading**					÷ 1–0.10
Reinsurance Loading Factor for Brokerage, Internal Expenses, and Profit and Contingencies**					÷ 1–0.25
Experience Rate					6.93%

* Rather than using a simple average, many actuaries use a weighted average to reflect the premium size in each year.

† Calculated by 2,244,998 ÷ 48,000,000

** Sisterdale Insurance Company Calculation of Indicated Exposure Rate for the $50,000 xs of $50,000 Layer exhibit

*** Sisterdale Insurance Company Large Loss Listing $25,000 or More exhibit

**** Sisterdale Insurance Company Loss Development Using Age-to-Age Development Factors exhibit

[DA05416]

Reinsurance underwriters use their judgment to assign weights to each method based on the factors involved in a particular situation.

Exposure Rate Factors

These are among the factors to consider for exposure rates:

- Accuracy and credibility of the projected distribution of subject premium by policy limits
- Accuracy of the increased limit factors in excess of the retention
- Possible loss adjustment expenses, ECO losses, XPL losses, and clash cover losses not contemplated by the increased limit factors

A change in the mix of policy limits would substantially affect the reinsurance rate. For example, at high-level attachment points, such as $1 million or above, the increased limit factors may not accurately reflect the possibility of loss because of the lack of credible loss data on which the factors are based.

Additionally, ECO, XPL, and clash cover losses are not reflected in increased limit factors. Reinsurance underwriters must judge the probability and amount of those losses. Finally, loss adjustment expenses may affect the rate if they are added to the indemnity loss.

Experience Rate Factors

These are among the factors to consider for experience rates:

- Accuracy of the estimates of claim cost inflation trends
- Accuracy of the estimates of excess loss development factors
- Accuracy of the current value of subject premium
- Adequacy of the statistical sampling
- Stability of the estimated excess loss costs

The underlying inflation trend assumptions must be appropriate. For example, the inflation trends on the cost of medical services may be very different from the inflation trends in building costs. One inflation trend index does not apply to all classes of business.

Excess loss development factors must be derived from a large enough number of losses to yield statistical credibility. Generally, the lower the attachment point of a layer and the smaller the amount of coverage in excess of the attachment point, the higher the level of data credibility.

The assumptions used to establish inflation trends affect the accuracy of premium on-level factors. The primary insurer should have accurate records of all rate-~~level changes~~ during the experience period because many of those changes are filed with state insurance regulators.

The statistical sampling's adequacy depends, in part, on whether the entire layer or only a small portion of the layer has experienced losses. In the latter case, experience rates may not include a charge for the entire portion of the layer unless an adjustment is made.

The stability of the excess loss cost from year to year is also a factor. Sisterdale's exposure rate of 5.20 percent should remain fairly constant over time.

However, the experience rate fluctuates considerably by year. The reinsurance underwriter must decide whether an additional insurance risk charge should be added because of loss volatility. If the reinsurance underwriter is uncomfortable with loss volatility, a multiple-year, retrospectively rated treaty or a large insurance risk charge may be appropriate.

Upper Layers Pricing

For layers of coverage above the working cover, exposure rating is used more often than experience rating. As the attachment point or the size of the layer increases, the loss experience to the layer becomes less stable. Therefore, increased limit factors reflecting the loss potential based on insurance industry data are used.

An exposure rate for Sisterdale may begin with the calculations in column (7) of the "Sisterdale Insurance Company Calculation of Indicated Exposure Rate for the $50,000 xs of $50,000 Layer" exhibit. The reinsurer could also compare Sisterdale's in-force policy portfolio (premiums and losses) with those of similar primary insurers in its portfolio of reinsurance agreements to determine whether the pricing appears to be reasonable.

The instability of high layers may lead the reinsurer to include an additional insurance risk charge to justify the possibility of assuming unexpected losses. Lower loss frequency and greater uncertainty of profitable underwriting results for the reinsurer may justify the addition of an insurance risk charge.

Clash cover pricing, which attaches above all policy limits, is based on judgment and market competition because few, if any, losses are expected to be large enough to trigger coverage. Pricing the clash cover depends on the reinsurance underwriter's assessment of the possibility of ECO or XPL losses, the possibility of two or more insureds being involved in one occurrence, and the possibility of high loss adjustment expenses.

SUMMARY

Casualty excess of loss treaties cover losses arising out of the primary insurer's underlying casualty insurance policies. Primary insurers use casualty excess of loss treaties to increase large line capacity, stabilize loss experience, and provide catastrophe protection. Casualty excess of loss treaties can be provided on a per policy or per occurrence basis, but most casualty excess of loss treaties are on a per occurrence basis. Reinsurance coverage is often provided in layers, such as working cover, policy-exposed layers, and clash cover.

Some common clauses are modified for use in casualty excess of loss treaties. These common clauses include reinsuring clauses and definitions clauses. The reinsuring clause in a casualty excess of loss treaty specifies what types of insurance are covered under the treaty. Important to include in the definitions clause of a casualty excess of loss treaty is occurrence, the definition of which depends on the underlying coverage being reinsured.

Various clauses are designed or adapted specifically for casualty excess of loss treaties, to provide additional details or clarification regarding the responsibilities of the primary insurer and the reinsurer. These clauses include retention and limits clauses, reinstatement clauses, claims and loss adjustment expense clauses, declaratory judgment expense clauses, sunrise and sunset clauses, and commutation clauses.

Two approaches to pricing casualty excess of loss treaties are exposure rating and experience rating. Exposure rating uses manual increased limit factors that primary insurers also use to determine the premium for the underlying policies. Increased limit factors are based on loss distributions constructed from insurance industry data.Experience rating is based on the primary insurer's past losses and related subject premiums. Actuarial techniques are used to adjust past losses to project probable future premiums and losses. The reinsurance underwriter usually combines the results of exposure rating and experience rating to determine the final rate.

ASSIGNMENT NOTES

1. Leslie J. Davis, "Concerning the Coverage of Declaratory Judgment Expense," Tort & Insurance Law Journal, Spring 1995, p. 686.
2. Davis, p. 686.