



## Quota Share Treaties

### Educational Objectives

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

- ▶ Describe the operation, functions, and use of quota share treaties and how quota share treaties are used in a primary insurer's reinsurance program.
- ▶ Describe the purpose of the following common clauses that are modified for use in quota share treaties:
  - Reinsuring clause
  - Definitions clause
  - Commencement and termination clause
  - Reports and remittances clause
- ▶ Describe the purpose of the following clauses designed or adapted for quota share treaties:
  - Retention and limits clause
  - Reinsurance premium clause
  - Sliding scale commission clause
  - Portfolio transfer clause
  - Losses, loss adjustment expenses, and salvages clause
  - Outside reinsurance clause
  - Warranties clause
  - Original conditions clause
- ▶ Describe the key factors a reinsurer takes into consideration when negotiating the ceding commission of a quota share treaty.
- ▶ Calculate the profit-sharing ceding commission for a quota share treaty.
- ▶ Explain how to evaluate the effectiveness of a quota share treaty.

### Outline

Overview of Quota Share Treaties

Common Clauses Modified for Use in Quota Share Treaties

Clauses Designed or Adapted for Quota Share Treaties

Quota Share Treaty Pricing

Calculating a Quota Share Profit-Sharing Ceding Commission

Evaluating a Quota Share Treaty

Summary

# Quota Share Treaties

## OVERVIEW OF QUOTA SHARE TREATIES

Quota share is a type of pro rata reinsurance. Because quota share reinsurance involves a simple sharing arrangement between the primary insurer and the reinsurer, it is used to address a variety of reinsurance needs for primary insurers.

With quota share reinsurance, the primary insurer and reinsurer share the amounts of insurance, policy premiums, and losses using a fixed percentage. Quota share reinsurance can be provided on a facultative basis (by individual loss exposure) or on a treaty basis (by entire class or portfolio of loss exposures).

This discussion focuses on the operation, functions, and use of quota share reinsurance in a treaty context. While quota share treaties can be used for both property and liability insurance, property quota share treaties are much more common.

## Operation of Quota Share Treaties

A quota share treaty's operation is straightforward. During the reinsurance negotiation process, the primary insurer and reinsurer determine these treaty details:

- Types of insurance or other specified categories of loss exposures to which the quota share treaty will apply
- Quota share percentage
- Treaty limit
- Ceding commission

For example, a small primary insurer may plan to expand from selling only personal auto insurance to selling homeowners insurance as well. This primary insurer may be able to negotiate an 80 percent quota share treaty subject to maximum policy limits of \$300,000 for the homeowners insurance it expects to sell. By doing this, the primary insurer would retain 20 percent of the amounts of insurance, policy premiums, and losses for all policies covered by the treaty, and the reinsurer would assume the balance. In addition, the highest amount of insurance for any underlying policy that could be completely addressed by the treaty would be \$300,000.

The exhibit shows an example of an 80 percent quota share treaty and how the amounts of insurance, policy premiums, and losses are shared between the primary insurer and the reinsurer. See the exhibit "80 Percent Quota Share Treaty."

80 Percent Quota Share Treaty			
	Primary Insurer 20% Retention	Reinsurer 80% Cession	Total
<b>Policy A</b>			
Amount of Insurance	\$10,000	\$40,000	\$50,000
Amount of Premium	500	2,000	2,500
Amount of Loss	300	1,200	1,500
<b>Policy B</b>			
Amount of Insurance	\$40,000	\$160,000	\$200,000
Amount of Premium	800	3,200	4,000
Amount of Loss	14,000	56,000	70,000
<b>Policy C</b>			
Amount of Insurance	\$60,000	\$240,000	\$300,000
Amount of Premium	1,800	7,200	9,000
Amount of Loss	55,000	220,000	275,000

[DA05134]

In the "80 Percent Quota Share Treaty" example, loss exposures with amounts of insurance greater than \$300,000 would be included in the treaty but only up to the reinsurance limit. Amounts exceeding the limit could be handled either by another reinsurance treaty arranged by the primary insurer or by a facultative reinsurance agreement for that particular loss exposure. Alternatively, the primary insurer could either retain the amounts of insurance greater than the limit or decline to insure loss exposures that exceed the limit.

The ceding commission that the reinsurer pays to the primary insurer reimburses the primary insurer for policy acquisition expenses. Pro rata treaties sometimes include a commission greater than the primary insurer's expense so that effectively the primary insurer can share in the profits earned by the reinsurer on the ceded loss exposures. This additional commission is referred to as a profit-sharing commission, and it is contingent on the ceded insurance's profitability. The ceding commission, netted from the reinsurance premium, provides the surplus relief sought by many primary insurers when choosing pro rata reinsurance as a means of transferring insurance risk.

The fixed percentage sharing arrangement of premiums and losses applies to all loss exposures included for coverage under the terms of the quota share treaty, which means that both the primary insurer and the reinsurer will have the same loss ratio on the ceded loss exposures. Because the primary insurer and reinsurer share the same underwriting results, quota share treaties often create a closer working relationship between the primary insurer and the reinsurer than that found with other types of reinsurance agreements.

Using Policy A from the "80 Percent Quota Share Treaty" exhibit, this exhibit shows that the loss ratio—losses divided by premiums—is the same for both the primary insurer and the reinsurer. See the exhibit "Comparison of the Loss Ratios of the Parties to a Quota Share Treaty."

### Comparison of the Loss Ratios of the Parties to a Quota Share Treaty

	Primary Insurer 20% Retention	Reinsurer 80% Cession	Total
<b>Policy A</b>			
Amount of Insurance	\$10,000	\$40,000	\$50,000
Amount of Premium	500	2,000	2,500
Amount of Loss	300	1,200	1,500
Loss Ratio	60%	60%	60%

[DA05135]

Under a quota share treaty, all losses, regardless of size, are reimbursed by the reinsurer based on the cession percentage. For example, even a \$1,000 claim for theft of the policyholder's engagement ring against a \$300,000 homeowners policy would be shared with the reinsurer based on the cession percentage.

The primary insurer's and reinsurer's potential liabilities increase as the amounts of insurance and loss exposures subject to the quota share treaty increase. Therefore, the primary insurer and reinsurer should consider the average amounts of insurance needed and the number of loss exposures covered when establishing the treaty.

For example, consider a quota share treaty with a 20 percent retention. At the time the treaty was purchased, it covered a small portfolio of homeowners policies with an average amount insured of \$100,000. However, the portfolio now contains 5,000 policies in the same geographic area with average amounts insured of \$200,000. Conceivably, a single catastrophe could cause a total loss to all 5,000 homes insured, resulting in a \$200 million retention for the primary insurer and an \$800 million liability for the reinsurer.





To address such situations, some reinsurers require that pro rata reinsurance treaties include a per occurrence limit that applies to combined losses originating from a single occurrence. The per occurrence limit diminishes pro rata reinsurance's ability to protect the primary insurer from financial effects of catastrophic events. Reinsurers often use per occurrence limits as defensive measures until they can better determine what their catastrophic loss exposures are and price them accordingly.

For example, following Hurricane Andrew, many reinsurers required that a per occurrence limit be included in new and renewed pro rata reinsurance treaties. However, the reinsurers removed many of these limits once they obtained information on the primary insurers' catastrophe exposures.

Because quota share treaties apply to all loss exposures subject to them, regardless of the amounts of insurance needed, small loss exposures that the primary insurer can safely retain are reinsured. Participation in these usually profitable loss exposures is one of the advantages for the reinsurer of quota share treaties. From the primary insurer's perspective, the unnecessary reinsurance of small loss exposures is a disadvantage of quota share treaties and a reason to consider using surplus share reinsurance or variable quota share reinsurance.

Variable quota share reinsurance is a form of quota share reinsurance in which the primary insurer's retention and cession to the reinsurer vary by the amount of insurance needed for the loss exposure or some other criterion. Primary insurers can apply a lower quota share cession percentage for loss exposures needing lower amounts of insurance and a higher quota share cession percentage for loss exposures needing higher amounts of insurance. Variable quota share treaties address primary insurers' concerns that quota share reinsurance forces them to unnecessarily cede larger amounts on profitable loss exposures.

Although the cession percentage in a variable quota share treaty changes with each loss exposure's attributes, the cession percentages are established when the treaty is negotiated, as is the cession percentage used in a standard quota share treaty. The exhibit shows how the cession percentages in a variable quota share treaty may change based on the amounts of insurance needed for each loss exposure ceded. For example, a loss exposure with an \$80,000 amount of insurance needed would be subject to an 80 percent cession. See the exhibit "Variable Quota Share Treaty Cession Percentages."

The exhibit shows the effect on the ceded premium of a variable quota share treaty compared with an 80 percent standard quota share treaty for the same subject premium and using the variable quota share cession percentages shown in the "Variable Quota Share Treaty Cession Percentages" exhibit. In the example in this exhibit, the variable quota share treaty yields a much smaller total ceded premium than the standard quota share treaty because of the primary insurer's large premium volume sold in lower amounts (or limits) of insurance. See the exhibit "Comparison of Standard Quota Share and Variable Quota Share Treaties."



### Variable Quota Share Treaty Cession Percentages

Amount of Insurance	Cession Percentage	Maximum Cession
\$0–\$25,000	20%	\$5,000
\$25,001–\$50,000	60%	\$30,000
\$50,001–\$75,000	75%	\$56,250
\$75,001–\$100,000	80%	\$80,000

[DA05136]

### Comparison of Standard Quota Share and Variable Quota Share Treaties

Amount of Insurance	Written Premium	Standard Quota Share		Variable Quota Share	
		Cession Percentage	Ceded Premium	Cession Percentage	Ceded Premium
\$0–\$25,000	\$ 7,500,000	80%	\$ 6,000,000	20%	\$1,500,000
\$25,001–\$50,000	5,300,000	80%	4,240,000	60%	3,180,000
\$50,001–\$75,000	1,035,000	80%	828,000	75%	776,250
\$75,001–\$100,000	465,000	80%	372,000	80%	372,000
Totals	\$14,300,000		\$11,440,000		\$5,828,250

[DA05137]

A primary insurer's use of a variable quota share treaty usually results in a smaller cession of total premium than would be the case under a standard quota share treaty. As a consequence of the smaller total premium cession, a variable quota share treaty will usually provide less surplus relief than a comparable standard quota share treaty. Because the cession percentage must be determined for each loss exposure, a variable quota share treaty involves more administrative expense than a standard quota share treaty.

Although the loss ratio is the same for the primary insurer and the reinsurer in a standard quota share treaty, this may not be the case with a variable quota share treaty. In the "Comparison of Standard Quota Share and Variable Quota Share Treaties" exhibit, variable quota share treaty policies with low amounts of insurance and a smaller cession percentage may have a lower loss ratio than policies with higher amounts of insurance and a larger cession



percentage. In this example, the reinsurer may reassess its participation and attempt to negotiate greater participation in the primary insurer's more profitable insurance policies.

## Functions of Quota Share Treaties

Quota share treaties serve these primary functions for the primary insurer:

- Increase large line capacity
- Provide catastrophe protection
- Provide surplus relief
- Facilitate withdrawal from a market segment
- Provide underwriting guidance

Some of these functions are better served by quota share treaties than others, and some are better served by other types of reinsurance.

### Increase Large Line Capacity

Quota share reinsurance is reasonably effective in providing the primary insurer with increased large line capacity, depending on the cession percentage in the quota share treaty. For example, quota share reinsurance may enable a small primary insurer to compete for homeowners business with amounts of insurance that are greater than its policyholders' surplus could otherwise support. However, quota share reinsurance is less effective in increasing large line capacity than other forms of reinsurance because the primary insurer's liability increases as the amounts of insurance increase.

### Provide Catastrophe Protection

Quota share treaties provide primary insurers with some catastrophe protection, although they are not usually purchased primarily to fulfill that function. A quota share reinsurer pays its share of each loss incurred under the quota share treaty, whether it resulted from a catastrophe or from several different events.

Some pro rata reinsurance treaties contain a per occurrence cap on the reinsurer's liability for catastrophic losses. Even quota share treaties that include a per occurrence limit provide some, albeit limited, catastrophe protection.

Primary insurers that insure loss exposures likely to be affected by catastrophes usually purchase catastrophe reinsurance, which is designed and priced to provide catastrophe protection. A primary insurer's quota share treaty may expressly exclude catastrophe losses in recognition of a separate catastrophe reinsurance agreement.

Some primary insurers use reciprocal quota share treaties with other primary insurers to minimize their concentration of loss exposures in a single geographic area and thereby reduce their catastrophe loss exposures. For example,





a primary insurer writing homeowners insurance in a limited geographic area, such as Alabama, Georgia, or Florida, may enter into a quota share treaty with a primary insurer operating in another U.S. region. This quota share treaty would enable each insurer to geographically diversify its loss exposures.

### Provide Surplus Relief

Quota share is the most effective type of reinsurance that a primary insurer can use to obtain surplus relief. Quota share treaties allow the primary insurer to cede a large amount of premium to reduce its net written premiums and to receive a ceding commission to increase its policyholders' surplus. The effect of a quota share reinsurance transaction serves to improve the primary insurer's financial strength.

For rapidly growing primary insurers that are depleting their policyholders' surplus more rapidly than they are earning profit, quota share reinsurance provides the financing they need to support further growth. Primary insurers become less dependent on quota share reinsurance as they increase their policyholders' surplus through profitable operations.

### Facilitate Withdrawal From a Market Segment

A primary insurer may decide that an existing type of insurance or geographic area (market segment) no longer fits its long-term business strategy. To withdraw from a market segment, a primary insurer may transfer its entire liability to a reinsurer.

The primary insurer can effectively eliminate the financial consequences of unwanted loss exposures from its operating results by purchasing a 100 percent quota share treaty (portfolio reinsurance). Reinsurers would consider a 100 percent quota share treaty if the treaty offered an opportunity for profit or positive cash flow. Because portfolio reinsurance transactions often reflect a significant shift in a primary insurer's business strategy, some states require them to be reviewed and approved by insurance regulators before they are executed.

### Provide Underwriting Guidance

Primary insurers starting to sell a new insurance product or entering a new territory often rely on the expertise of a reinsurer in making fundamental decisions about underwriting standards, coverage forms, and pricing. Reinsurers generally welcome these opportunities to provide advice because they allow them to influence the types of loss exposures that will be reinsured.

Reinsurers providing reinsurance on a quota share basis are more likely to be involved in primary insurer underwriting policy decisions about ceded loss exposures because the primary insurer and the reinsurer loss ratios are the same.

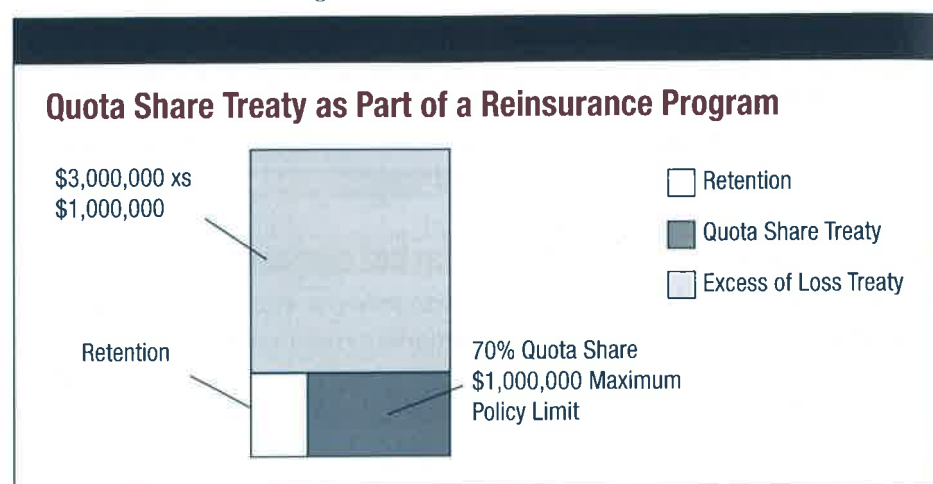




## Quota Share Treaties as Part of a Reinsurance Program

Primary insurers often use quota share treaties when they begin selling a new insurance product, enter a new territory, or need surplus relief. In developing a reinsurance program, a primary insurer and its reinsurer must determine how best to incorporate a quota share treaty into the overall program. Usually, a primary insurer does not rely on quota share treaties alone but combines them with surplus share treaties, excess of loss treaties, or facultative reinsurance.

The exhibit illustrates how a quota share treaty and excess of loss treaty may be arranged for a reinsurance program. See the exhibit "Quota Share Treaty as Part of a Reinsurance Program."



[DA05140]

The reinsurance program design must consider the order in which the primary insurer's treaties will respond to losses. These categories describe the order of treaty application:

- Gross account basis—A quota share treaty that applies on a gross account basis reimburses the primary insurer for covered losses before other pro rata reinsurance treaties apply.
- Net of pro rata basis—A quota share treaty on a net of pro rata basis applies after other applicable pro rata reinsurance recoveries apply. For example, the primary insurer may have a surplus share reinsurance treaty that applies to the same loss exposures as, and would respond before, the primary insurer's net of pro rata quota share treaty.
- Net of all reinsurance basis—A quota share treaty on a net of all reinsurance basis applies after all other applicable reinsurance recoveries apply, whether that reinsurance is pro rata or excess of loss. For example, a primary insurer may have a property per risk excess of loss treaty and a property quota share treaty on the same loss exposure. If the property quota share treaty is on a net of all reinsurance basis, the property per risk excess of loss treaty would reduce the loss before the property quota share treaty is applied.

Quota share treaties may also be used by a captive insurer (or captive). A captive insurer can offer insurance directly to its owner, but to do so it must satisfy state insurance licensing requirements. Instead, many captive insurers use the services of a fronting company. A 100 percent quota share treaty is often used to transfer liability assumed by the fronting company to the captive insurer, which in turn can reduce its liability through a retrocession agreement.

#### Captive insurer, or captive

A subsidiary formed to insure the loss exposures of its parent company and the parent's affiliates.

#### Fronting company

A licensed insurer that issues an insurance policy and reinsures the loss exposures back to a captive insurer owned by the insured organization.

## COMMON CLAUSES MODIFIED FOR USE IN QUOTA SHARE TREATIES

Quota share treaties usually contain many of the same types of clauses as other reinsurance treaties.

Among these common clauses, some are modified for use in quota share treaties to provide additional details and clarification regarding the responsibilities of the primary insurer and reinsurers:

- Reinsuring clause
- Definitions clause
- Commencement and termination clause
- Reports and remittances clause

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

### Reinsuring Clause

The reinsuring clause specifies the quota share percentage assumed by the reinsurer and states whether the quota share cession is obligatory. It also describes the policies covered and identifies the basis of attachment—in other words, whether the clause applies to in-force policies, newly issued policies, renewed policies, or all three.

The reinsuring clause shown in the exhibit states that coverage is provided for losses for in-force policies issued prior to the inception of the quota share treaty and new policies issued on or after the inception date of the treaty. See the exhibit "Sample Reinsuring Clause."

The reinsuring clause establishes that the reinsurer's obligation to the primary insurer begins at exactly the same time as the primary insurer's obligation to the insured begins. When the primary insurer's underwriter agrees to issue a policy, the reinsurer automatically assumes its proportional liability for the loss exposure covered by the underlying policy.



### Sample Reinsuring Clause

44 C

#### REINSURING CLAUSE

By this Contract the Company obligates itself to cede to the Reinsurer and the Reinsurer obligates itself to accept \_\_\_\_\_ % quota share reinsurance of the Company's net liability under policies, contracts and binders of insurance or reinsurance (hereinafter called "policies") in force at and becoming effective at and after (hour) (date) (year), including renewals, and classified by the Company as \_\_\_\_\_.

"Net liability" as used herein is defined as the Company's gross liability remaining after cessions, if any, to \_\_\_\_\_.

The liability of the Reinsurer with respect to each cession hereunder shall commence obligatorily and simultaneously with that of the Company, subject to the terms, conditions and limitations hereinafter set forth.

Source: Brokers & Reinsurance Markets Association (BRMA), [www.brma.org/frommembers/contractword/Reinsuring%20Clause%20pro%20rata%20BRMA%2044A-D.doc](http://www.brma.org/frommembers/contractword/Reinsuring%20Clause%20pro%20rata%20BRMA%2044A-D.doc) (accessed November 19, 2012). [DA05182]

### Definitions Clause

The terms defined in the definitions clause vary by quota share treaty depending on the needs and concerns of the parties. For example, the treaty may define "net retained insurance liability" to clarify whether the treaty applies on a gross account or net basis. A quota share treaty may contain a specific definition for "occurrence" if the treaty has an occurrence limit. See the exhibit "Sample Definitions Clause."

### Commencement and Termination Clause

The commencement and termination clause defines the term of the quota share treaty and the circumstances that would trigger its termination.

In most cases, the quota share treaty's effective date is the first day of a month or calendar quarter, and the effective time is 12:01 a.m. standard time at the location of the loss exposure for property treaties and at the insured's mailing address for casualty treaties.

The commencement and termination clause clearly states the termination provisions. Most quota share treaties provide coverage for losses from policies that were subject to the treaty after the termination date (run-off basis). For example, the commencement and termination clause shown in the exhibit obligates the reinsurer to pay losses until the first anniversary or natural expiration or cancellation of each policy, up to a maximum of twelve months after the treaty's termination. See the exhibit "Sample Commencement and Termination Clause."





### Sample Definitions Clause

The term "net retained insurance liability" as used herein means the remaining portion of the Company's gross liability on each risk reinsured under this Agreement after deducting recoveries from all reinsurance, other than the reinsurance provided hereunder and other than the reinsurance provided in Article XIV.

The term "net premiums written" as used herein means gross premiums and additional premiums less return premiums and less premiums ceded on all other reinsurance, other than the reinsurance provided in Article XIV.

The term "occurrence" as used herein means each occurrence, disaster, or casualty or series of occurrences, disasters, or casualties arising out of one event.

[DA05183]

### Sample Commencement and Termination Clause

57 B

#### COMMENCEMENT AND TERMINATION CLAUSE

This Contract shall incept at 12:01 A.M. Local Standard Time (*month, day, year*) at the location of the risk and shall remain in force for an indefinite period, but either party shall have the right to cancel as of (*month, day, year*) or any (*month, day*) thereafter by giving at least \_\_\_\_\_ days prior written notice by certified or registered mail.

In the event either party cancels in accordance with the paragraph above, the Reinsurer shall participate in all policies ceded within the terms of this Contract written or renewed by the Company after receipt of notice of cancellation but prior to termination, and shall remain liable for all cessions in force at termination of this Contract; however, the liability of the Reinsurer shall cease with respect to losses occurring subsequent to the first anniversary, natural expiration or cancellation of each policy ceded, but not to extend beyond 12 months after such termination.

The Reinsurer shall refund to the Company the unearned reinsurance premium applicable to the unexpired liability (calculated on a pro rata basis), less the commission allowed by the Reinsurer thereon at conclusion of the runoff. The Reinsurer will continue to be liable for its proportionate share of the outstanding losses (reported or unreported) on policies ceded hereunder with a date of loss prior to the conclusion of the runoff.

Source: Brokers & Reinsurance Markets Association (BRMA), [www.brma.org/frommembers/contractword/Commencement%20and%20Termination%20BRMA%2057A-J%20see%20BRMA63%20also.doc](http://www.brma.org/frommembers/contractword/Commencement%20and%20Termination%20BRMA%2057A-J%20see%20BRMA63%20also.doc) (accessed November 19, 2012). [DA05184]



Reinsurers prefer treaties to be written with provisions that permit immediate termination (cut-off basis) if cancellation is because of poor loss experience. With such treaties, the unearned premium reserve is returned, and the reinsurer is not responsible for losses occurring after the termination date. Instead, the primary insurer must retain the liability transferred back from the reinsurer, purchase other reinsurance, or cancel the underlying policies. Because of this, the primary insurer usually prefers not to have this type of cancellation provision included in the treaty.

Most insurance policies are issued for a one-year term. Consequently, no unearned premiums remain more than twelve months after a treaty's termination. However, if a policy is issued for more than one year, which often occurs with a builders risk policy, the treaty must contain provisions either to extend the reinsurer's liability to cover the total run-off or to return the balance of the unearned premium reserve to the primary insurer.

## Reports and Remittances Clause

The reports and remittances clause requires the primary insurer to submit information to the reinsurer so that net balances owed to each party can be calculated and remitted and so that financial statements can be completed. This information includes premiums, claims, unearned premiums, and outstanding losses. The primary insurer and reinsurer agree on the reporting format that the primary insurer will use. Traditionally, information on the loss exposures that are subject to the treaty is reported on a bordereau.

The reports and remittances clause may specify these conditions:

- The primary insurer must maintain adequate records regarding the liabilities ceded and report cessions periodically in the designated format.
- The primary insurer and reinsurer must pay balances within a specified period.
- The primary insurer must report large individual losses and can request that the reinsurer pay its share of such losses immediately.
- The primary insurer must provide information regarding catastrophe losses.

The primary insurer's records must be adequate to report all of the necessary data on the policies covered by the quota share treaty. Reporting can be monthly, quarterly, semiannually, or annually. The reinsurer monitors the reported data to determine how the treaty is performing. The reporting format is important to the reinsurer because it can ease preparation of loss development reports and completion of financial statements.

The payment period for balances can be negotiated. It is seldom less than thirty days or greater than ninety days, but depends on when the primary insurer receives payments from its policyholders and the degree of competition among reinsurers. For example, if the primary insurer usually receives



premium payments from policyholders forty-five days after issuing policies, the primary insurer's cash flow would be reduced if payments became due to the reinsurer in thirty days. Primary insurers want to hold premiums as long as possible to earn investment income on them. Because of this, reinsurers that are in highly competitive markets are more likely to extend their payment periods to attract business.

The primary insurer may not want to delay recovery of the reinsurer's share of a loss until the next payment period. Therefore, the reports and remittances clause may have a **cash call** provision stating that the primary insurer can obtain payment from the reinsurer for certain losses without delay, should those losses exceed a certain agreed dollar amount (typically a large amount). An unusually large loss may create cash flow problems for the primary insurer, leading it to request a cash call. If the primary insurer is ceding the anticipated volume of loss exposures to the quota share treaty, the reinsurer usually has adequate cash flow to pay its share of large losses without waiting for the next payment period.

The dollar amount of a loss that qualifies under the cash call provision varies by the primary insurer's size and the treaty's terms. Because the reinsurer is asked to pay the loss immediately, it can offset its payment with any balance overdue from the primary insurer. The amount received through the cash call provision is then deducted from the losses figure in the next report. The reports and remittances clause shown in the exhibit specifies the size of a loss that triggers the cash call provision. Other treaties may include these specifications in a separate cash call clause. See the exhibit "Sample Reports and Remittances Clause."

Finally, the reports and remittances clause requires the primary insurer to provide catastrophe information to the reinsurer so that the reinsurer can prepare for unusually large loss payments and can report those losses under the reinsurer's own catastrophe retrocessions.

#### Cash call

A reinsurance treaty provision that permits the primary insurer to obtain payment from the reinsurer for certain losses without having to wait until the next payment period.





### Sample Reports and Remittances Clause

45 D

#### REPORTS AND REMITTANCES

Within \_\_\_\_\_ days after the close of each \_\_\_\_\_, the Company will furnish the Reinsurer with a report summarizing the written premium ceded less return premium and commission, losses paid, loss adjustment expense paid, monies recovered, and net balance due either party. In addition, the Company will furnish the Reinsurer a \_\_\_\_\_ statement showing the unearned premium, the total reserves for outstanding losses including loss adjustment expense, a breakdown by American Insurance Association catastrophic code numbers for paid and outstanding catastrophe losses and loss adjustment expense, and such other information as may be required by the Reinsurer for completion of its NAIC annual statements.

Amounts due the Reinsurer will be remitted with the report \_\_\_\_\_. Amounts due the Company will be remitted within \_\_\_\_\_ days following receipt of the report. Should payment due from the Reinsurer exceed \_\_\_\_\_ as respects any one loss, the Company may give the Reinsurer notice of payment made or its intention to make payment on a certain date. If the Company has paid the loss, payment will be made by the Reinsurer immediately. If the Company intends to pay the loss by a certain date and has submitted a satisfactory proof of loss or similar document, payment will be due from the Reinsurer twenty-four (24) hours prior to that date, provided the Reinsurer has a period of five (5) working days after receipt of said notice to dispatch the payment. Cash loss amounts specifically remitted by the Reinsurer as set forth herein will be credited to its next \_\_\_\_\_ account.

Source: Brokers & Reinsurance Markets Association (BRMA), [www.brma.org/frommembers/contractword/Reports%20and%20Remittances%20BRMA%2045A-D.doc](http://www.brma.org/frommembers/contractword/Reports%20and%20Remittances%20BRMA%2045A-D.doc) (accessed November 19, 2012). [DA05185]

## CLAUSES DESIGNED OR ADAPTED FOR QUOTA SHARE TREATIES

Some clauses are designed or adapted specifically for use in quota share treaties that enable the treaties to operate as such.

These are among the clauses that are typically designed or adapted for use in quota share treaties:

- Retention and limits clause
- Reinsurance premium clause
- Sliding scale commission clause
- Portfolio transfer clause
- Losses, loss adjustment expenses, and salvages clause
- Outside reinsurance clause



- Warranties clause
- Original conditions 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

The retention and limits clause specifies the primary insurer's minimum net retention and the maximum amount of insurance that the primary insurer can cede to the reinsurer under the quota share treaty. If the primary insurer uses the quota share treaty on a net of pro rata basis or on a net of all reinsurance basis, the clause may state the treaty's maximum limit as a percentage of the primary insurer's net retention after deduction of other reinsurance. The retention and limits clause shown in the exhibit includes that wording. See the exhibit "Sample Retention and Limits Clause."

### Sample Retention and Limits Clause

The liability of the Reinsurer shall not exceed \$240,000 on any one risk (i.e., 80 % of \$ 300,000 ). The Company shall be the sole judge of what constitutes one risk; provided, however, any non-fire-resistive building and its contents shall never be considered as constituting more than one risk. As respects dwelling properties insured under Homeowners, Farmowners and Ranchowners policies, the dwelling building, contents therein, outbuildings and extra living expense shall be considered as constituting one risk.

The Company shall retain net for its own account, subject to the reinsurance provided in Article XIV, the remaining 20 % of its net retained insurance liability on each risk reinsured under this Agreement.

[DA05141]

## Reinsurance Premium Clause

The reinsurance premium clause specifies how the subject premium is determined and when the primary insurer must pay the reinsurer its share of the unearned premium. If the quota share treaty covers the property loss exposure of package policies in which one indivisible premium applies to both property and liability coverages, the reinsurance premium clause specifies the percentage of the indivisible premium that represents the property loss exposure. The reinsurance premium clause determines the basis for calculating ceding commissions. See the exhibit "Sample Reinsurance Premium Clause."



### Sample Reinsurance Premium Clause

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#### REINSURANCE PREMIUM

The Company will cede to the Reinsurer its ~~proportionate share of the unearned premium on the business~~ in force at the inception of this Contract for the business described herein. Additionally, the Company will cede to the Reinsurer its proportionate share of the net subject written premium on all policies written or renewed with an effective date on or after the inception of this Contract.

"Net subject written premium" as used in this Contract will mean the gross written premium of the Company for the classes of business reinsured hereunder, plus additions, less return premium for cancellations and reductions, and less premium for reinsurance that inures to the benefit of this Contract.

Source: Brokers & Reinsurance Markets Association (BRMA), [www.brma.org/frommembers/contractword/Reinsurance%20Prem.%20pro%20rata%20BRMA%2042A-D.doc](http://www.brma.org/frommembers/contractword/Reinsurance%20Prem.%20pro%20rata%20BRMA%2042A-D.doc) (accessed November 26, 2012). [DA05142]

### Sliding Scale Commission Clause

The sliding scale commission clause specifies how the primary insurer and reinsurer will share profits from the underlying insurance covered by the treaty. Sliding scale commission is calculated retrospectively by adjusting the ceding commission percentage based on the actual loss ratio of the ceded loss exposures.

Sliding scale commissions are commonly used in quota share treaties and some surplus share treaties. A provisional ceding commission is paid during the reinsurance treaty's term and is usually an amount close to the actual acquisition costs incurred by the primary insurer at the expected loss ratio for the reinsured policies.

For each percentage point reduction in the actual loss ratio during a specified experience period, the ceding commission percentage may increase, up to a specified maximum percentage. Similarly, for each percentage point incurred above the expected loss ratio, the ceding commission percentage may decrease, but not below a specified minimum percentage.

If the treaty has limited historical loss experience or is subject to catastrophe loss exposures, the sliding scale commission clause may contain a provision that carries forward losses to the next experience period. The exhibit shows an example of how a sliding scale commission may be applied. See the exhibit "Sliding Scale Commission Example."

Sliding scale commission clauses are usually used in quota share treaties in which the loss ratio is relatively stable, such as property insurance. These clauses can also be used in surplus share treaties, but the potential for large losses under surplus share treaties usually negates the potential profit sharing, so profit-sharing ceding commissions are used instead.





### Sliding Scale Commission Example

Boerner Insurance Company (Boerner) has a quota share treaty with a sliding scale commission clause with a 35 percent provisional ceding commission and a 60 percent expected loss ratio. In the sliding scale shown below, commission scale "slides up" 1 percent for each 1 percent reduction in Boerner's loss ratio. For example, at the end of the treaty period Boerner might have developed a 55 percent loss ratio and have been rewarded with a 5 percent increase over the 35 percent provisional ceding commission.

Actual Loss Ratio	Ceding Commission Rate
60% or more	35%
59%	36%
58%	37%
57%	38%
56%	39%
55%	40%
54%	41%
53%	42%
52%	43%
51%	44%
50%	45%
Less than 50%	46%

[DA05143]

Generally, the reinsurer is responsible for calculating the sliding scale commissions. However, the party performing the calculations can be negotiated. Direct writing reinsurers typically prefer to do their own calculations.

### Portfolio Transfer Clause

The portfolio transfer clause specifies how the unearned premium reserve is transferred, the payment terms, and the reinsurer's obligation for losses. If one reinsurer is simply replacing another reinsurer on the same treaty, the unearned premium reserve is transferred from the outgoing reinsurer to the incoming reinsurer. The portfolio transfer clause shown in the exhibit states that the primary insurer must pay the unearned premium reserve to the incoming reinsurer within sixty days of the treaty's inception. See the exhibit "Sample Portfolio Transfer Clause."



### Sample Portfolio Transfer Clause

Within 60 days after the inception of this Agreement, the Company shall remit to the Reinsurer the unearned premium reserve on business ceded hereunder that was in force at the inception of this Agreement. The Reinsurer will allow a commission on the premium ceded at the rate provided herein. In consideration of the premium so transferred, and subject to the terms and conditions of this Agreement, the Reinsurer will accept liability for its share of losses which occur on or after the inception date.

[DA05144]

Payment terms under a portfolio transfer clause are important because the incoming reinsurer is responsible for paying losses on the in-force policies and should have funds to pay those losses as quickly as possible. Sometimes primary insurers have difficulty recovering unearned premium reserves from terminating reinsurers. Consequently, the primary insurer may want to delay paying the unearned premium reserve to the incoming reinsurer. However, under the portfolio transfer clause, the primary insurer is contractually obliged to remit the unearned premium reserve to the incoming reinsurer within a specified time.

### Losses, Loss Adjustment Expenses, and Salvages Clause

The losses, loss adjustment expenses, and salvages clause of a quota share treaty states that the primary insurer has full authority to settle claims for the loss exposures ceded under the treaty. The clause also states that the reinsurer is responsible only for its proportion of the losses and loss adjustment expenses. Because the reinsurer shares in the losses, the reinsurer is entitled to its pro rata share of salvages, discounts, and other recoveries that reduce the amount of the loss. See the exhibit "Sample Losses, Loss Adjustment Expenses, and Salvages Clause."

### Outside Reinsurance Clause

With quota share treaties, primary insurers must cede, and reinsurers must accept, the types of loss exposures identified in the reinsuring clause. Occasionally, the primary insurer wants to insure a loss exposure but does not want to expose it to the treaty. Additionally, state law, policyholder requirements, or the amount of insurance needed may require separate reinsurance agreements. However, if the primary insurer reinsures such loss exposures outside the treaty through a facultative agreement, the treaty's obligatory nature may appear to be violated. The outside reinsurance clause allows the primary insurer to cede certain loss exposures outside the existing treaty in certain circumstances. See the exhibit "Sample Outside Reinsurance Clause."



### Sample Losses, Loss Adjustment Expenses, and Salvages Clause

The Company shall settle all loss claims under its policies, and the Reinsurer shall pay to the Company its pro rata share of such loss claims as payable by the Company.

The Reinsurer shall also bear its pro rata share of expenses incurred by the Company in the investigation, adjustment and litigation of all claims under its policies, including the pro rata share of salaries and expenses of staff adjusters as allocated to the claim, but excluding the office expenses of the Company and the salaries and expenses of its other employees. Such expenses shall be in addition to the limits set forth in Article V.

The Reinsurer shall benefit pro rata in all salvage, discounts and other recoveries.

[DA05145]

### Sample Outside Reinsurance Clause

It is understood and agreed that outside reinsurance placed by the Company for the following purposes shall not be deemed to be in violation of the obligatory provisions of this Agreement:

- A. For the benefit of the Reinsurer hereunder; or
- B. In compliance with any state law, or at the direction of an insurance department; or
- C. For the purpose of meeting conditions imposed by the insured or by a mortgagee having an interest in the property insured; or
- D. On any risk where, in the opinion of the Company, the ultimate amount of reinsurance required will exceed the respective amount of reinsurance which may be ceded hereunder.

[DA05146]

## Warranties Clause

The warranties clause specifies conditions with which the primary insurer must comply to ensure coverage under the quota share treaty. For example, the warranties clause in the exhibit specifies that Insurance Services Office, Inc.'s (ISO's) Seepage and Pollution Exclusion Clause must be attached to all policies subject to the reinsurance agreement. See the exhibit "Sample Warranties Clause."

Warranted conditions are those for which the primary insurer's lack of compliance voids reinsurance coverage for losses, and they are used when the reinsurer wants to ensure absolute compliance. Primary insurer underwriters should have a thorough understanding of treaty terms and conditions so that compliance is complete.





### Sample Warranties Clause

The Company warrants that all business subject to this Agreement contains the full Insurance Services Office's Seepage and Pollution Exclusion Clause or so deemed, wherever legal and applicable.

[DA05147]

### Original Conditions Clause

The original conditions clause establishes that the liability assumed by the reinsurer under the reinsurance treaty is on the same basis (rates, terms, and conditions) as the underlying coverage provided by the primary insurer.

This clause states that the reinsurer's share of the underlying premium, net of ceding commission, will not be reduced by dividends (if any) paid by the primary insurer to the underlying insured. Many primary insurers have dividend plans that enable policyholders to share in their profits when losses are better than expected. However, the reinsurance premium is based on the total amount of subject premium. See the exhibit "Sample Original Conditions Clause."

### Sample Original Conditions Clause

All amounts ceded hereunder shall be subject to the same rates, clauses, conditions, waivers, and to the same modifications and alterations as the respective policies of the Company. The Reinsurer shall be credited with its exact proportion of the original premiums less commission hereon received by the Company, prior to disbursement of any dividends.

[DA05148]

## QUOTA SHARE TREATY PRICING

Because premium, limits, and losses are shared proportionately, as agreed in the reinsurance contract, the ceding commission is the main pricing variable under quota share treaties.

These are the key factors a reinsurer considers when negotiating the amount of ceding commission it is willing to pay to the primary insurer:

- Primary insurer's retention
- Reinsurance treaty's limit



- Primary insurer's policy acquisition expenses
- Primary insurer's expected loss ratio on the portfolio, as well as its underwriting ability and rate adequacy
- Competition in the reinsurance marketplace

## Primary Insurer's Retention

The first consideration that affects the ceding commission is the primary insurer's retention. The primary insurer sets a retention for a quota share treaty based on its management's attitude toward risk, its size, its financial needs, and the geographic spread of loss exposures it cedes to the treaty.

If the primary insurer's management is unwilling to retain a significant amount of underwriting risk, the primary insurer will want a low retention. Size also influences the retention amount, as regulatory and statutory requirements may prevent a relatively small primary insurer from retaining as much underwriting risk as it would like.

In consideration of its financial needs, a primary insurer selects a retention based on its estimate of the amount of surplus relief that it will need; it does this by estimating its expected written premiums for the coming year and its expected policyholders' surplus at the end of the year.

For example, a primary insurer may estimate that at year-end, its written premiums will be \$25 million and its policyholders' surplus will be \$5 million. This primary insurer's capacity ratio at year-end would then be 5 to 1 ( $\$25 \text{ million} \div \$5 \text{ million} = 5$ ), exceeding the acceptable limit (3 to 1) for this ratio. A 40 percent quota share treaty would strengthen the primary insurer's capacity ratio, because 40 percent, or \$10 million, of written premiums would be paid to the reinsurer. This would reduce the primary insurer's net written premiums to \$15 million and therefore reduce its capacity ratio to 3 to 1. Additionally, the ceding commission paid by the reinsurer would increase the primary insurer's policyholders' surplus and further strengthen the capacity ratio. In practice, most primary insurers would choose to cede enough written premiums to bring the capacity ratio below 3 to 1.

The primary insurer also bases a quota share treaty retention on the geographic spread of the loss exposure ceded to the treaty. The geographic retention depends on concentration of loss exposures in a geographic area, susceptibility of the area to catastrophes, and cost of catastrophe protection.

A primary insurer may decide that a concentration of loss exposures of \$50 million in an area prone to hurricane damage is more than it wants to retain. A quota share treaty would be one way to reduce that concentration. For example, a 40 percent quota share treaty would reduce the primary insurer's liability to \$30 million. If \$30 million was still more than the primary insurer wanted to retain, the primary insurer could decide to purchase catastrophe excess of loss reinsurance or increase the cession to the quota share treaty.



That decision would depend on the cost of the catastrophe excess of loss reinsurance compared with the cost of a larger cession to the quota share treaty.

A reinsurer may agree to whatever retention the primary insurer selects. However, to encourage good underwriting practices on the part of the primary insurer, the reinsurer usually requires that the primary insurer retains a reasonable proportion of the loss exposures. To evaluate the primary insurer's retention, the reinsurer will request information on insurance policies sold by the primary insurer, underwriting guidelines, acceptable amounts of insurance, the claim history on loss exposures subject to the treaty, and hazardous classes of business insured.

### Reinsurance Treaty's Limit

The second consideration affecting the ceding commission is the reinsurance treaty's limit. The reinsurer protects itself by imposing a maximum limit on the amount of insurance the primary insurer can cede. That maximum limit affects the amount of premium ceded and therefore the amount of ceding commission the reinsurer is willing to pay. Generally, the more premium subject to the treaty, the greater the ceding commission percentage.

If the treaty covers two or more types of insurance, the maximum limit may be different for each type. A quota share treaty may include a per occurrence limit to restrict the accumulation of losses from a single event. Including a per occurrence limit usually results in a higher ceding commission than if no limit is included.

### Primary Insurer's Policy Acquisition Expenses

The third consideration affecting the ceding commission is the primary insurer's policy acquisition expenses. The ceding commission is normally established as an amount that equals the primary insurer's policy acquisition expenses so that the reinsurer is paying its proportionate share of the cost of selling the underlying insurance policies.

### Primary Insurer's Expected Loss Ratio

The fourth consideration affecting the ceding commission is the primary insurer's expected loss ratio on the portfolio, as well as its underwriting ability and rate adequacy. The reinsurer studies the primary insurer's underwriting ability and rate adequacy to see how they compare with those of other primary insurers selling the same type of insurance. If the primary insurer's rates are inadequate, the amount of premium ceded to the quota share treaty will be inadequate, and the reinsurer will want to reduce the ceding commission. If the primary insurer's underwriters are failing to exercise sound underwriting practices, the liability accepted by the primary insurer will be greater than anticipated by the rates charged.





The reinsurer examines the primary insurer's past loss experience to identify trends that may project results for the coming year. Insurer pricing often appears adequate in the short term, but it may prove to be inadequate in the long term, after all of the primary insurer's losses are known. Therefore, reinsurers often rely on the primary insurer's past loss experience to gauge its underwriting ability.

One source for historical loss experience is Schedule P of the primary insurer's National Association of Insurance Commissioners (NAIC) Annual Statement. Schedule P data may need to be adjusted if the primary insurer's reinsurance program has changed significantly. The data may also need to be adjusted for changes in economic cycles, procedures, or claim reserving philosophies and for random fluctuations.

In addition to analyzing loss reserves, the reinsurer can analyze paid claims. Using paid claims data, the reinsurer can avoid problems resulting from changes in claim handling procedures and claim reserving philosophies that might have contributed to over—or underreserving. Even if reserving problems are not suspected, reported and paid claims data provide useful information because those data add to the total amount of information available about the primary insurer.

Based on the analysis of premium and losses, a reinsurer can estimate the primary insurer's expected loss ratio on loss exposures subject to the treaty. The reinsurer may then increase or decrease the ceding commission offered, or agree to a sliding scale commission rather than a flat commission, based on the treaty's estimated profitability.

## Competition in the Reinsurance Marketplace

The fifth consideration affecting the ceding commission is competition in the reinsurance marketplace. After evaluating all other factors, the amount of the ceding commission (or type of ceding commission) may be a matter of offering terms that the primary insurer will accept.

When the reinsurance market is competitive, reinsurers are willing to offer higher ceding commission than they otherwise would when the market is less competitive. Ceding commission amounts that are higher than the primary insurer's actual acquisition expenses are called an override. Reinsurers should consider the override when evaluating the profitability of the quota share treaty.





## CALCULATING A QUOTA SHARE PROFIT-SHARING CEDING COMMISSION

The quota-share reinsurer pays an amount called a ceding commission to compensate the primary insurer for its expenses. The ceding commission also typically includes a profit allowance, which increases in proportion to the expected profitability of the business.

This example illustrates how a reinsurer can use estimated premium and costs to determine a profit-sharing ceding commission for a quota share treaty.

### Background Information

Assume this background information:

- A primary insurer plans to purchase a 40 percent quota share treaty covering its retained losses on an excess of loss treaty.
- The primary insurer wants a flat ceding commission of 20 percent for its policy acquisition expenses.
- The reinsurer is willing to reward the primary insurer for favorable underwriting performance through a profit-sharing commission, which is paid in addition to the flat ceding commission.
- The estimated subject premium is \$6,300,000.
- The reinsurer's costs and desired profit comprise 7 percent of the reinsurance premium.
- The underlying policies covered by the quota share treaty have an insignificant catastrophe loss exposure.

The primary insurer's past premium and losses, based on data from Schedule P of its National Association of Insurance Commissioners (NAIC) Annual Statement, are shown in the exhibit. The notes below the figures explain the adjustments made to the primary insurer's original Schedule P figures. See the exhibit "Primary Insurer's Past Premium and Losses."

The reinsurer determines the profit-sharing commission percentage in these three steps:

1. Estimate the quota share reinsurance premium
2. Subtract reinsurer and primary insurer costs
3. Determine a percentage for the profit-sharing commission

### Step 1: Estimate the Quota Share Reinsurance Premium

The estimated quota share reinsurance premium is the estimated subject premium multiplied by the quota share percentage. Using the background



**Primary Insurer's Past Premium and Losses**

(1) Historical Accident Year	(2) Losses Including Loss Adj. Exp.	(3) Earned Premium
1	\$3,803,595	\$5,763,023
2	4,073,302	6,266,619
3	3,659,134	5,808,149
4	4,149,709	6,193,595
5	4,007,660	6,261,969

**Notes**

- The losses in Column (2) are net of recoveries from excess of loss reinsurance, so these losses are representative of the losses to which this quota share treaty will be subject. The losses are also trended and developed to estimate their final settlement values in current dollars.
- The earned premiums in Column (3) are net of premiums for excess of loss reinsurance, so these premiums are representative of the premiums that will be subject to this quota share treaty. They are also adjusted for the primary insurer's insurance rate change history to restate the historical premium using current insurance rates. After this adjustment, premium is usually called on level, which means that all the premiums are stated at current levels.
- Premiums and losses were adjusted to reflect changes over the years in the retention for the excess of loss reinsurance program.

[DA05151]

information, the reinsurer calculates the estimated quota share reinsurance premium as shown:

$$\begin{aligned}
 \text{Estimated quota share reinsurance premium} &= \text{Estimated subject premium} \times \text{Quota share percentage} \\
 &= \$6,300,000 \times 0.40 \\
 &= \$2,520,000
 \end{aligned}$$

## Step 2: Subtract Reinsurer and Primary Insurer Costs

The reinsurer must subtract its costs and desired profit, the flat ceding commission required by the primary insurer, and the estimated average losses and loss adjustment expenses from the estimated quota share reinsurance premium.



### Costs and Desired Profit

A reinsurer's costs incurred in providing a pro rata treaty include overhead and brokerage paid to a reinsurance intermediary that may have been involved in the quota share placement (when applicable). These costs may be reduced by an investment income offset. Investment income can be generated because the reinsurer receives premium provided by the quota share treaty before it must pay losses to the primary insurer. The reinsurer bases the size of the investment income offset on the amount of investment income that it expects to earn on the premium. Not all reinsurers explicitly provide for investment income offset.

In addition to expenses associated with the treaty, the reinsurer must determine its minimum profit. Assume the reinsurer determines that its costs and minimum profit percentage are the sum of these elements:

Overhead	3.5%
Brokerage	2.0%
Investment income offset	(3.5%)
Minimum profit percentage	<u>5.0%</u>
Reinsurer's costs and desired profit percentage	7.0%

The reinsurer's costs and minimum profit are then calculated as shown:

$$\begin{aligned}
 \text{Reinsurer's costs and minimum profit} &= \text{Reinsurer's costs and minimum profit percentage} \times \text{Estimated quota share reinsurance premium} \\
 &= 0.07 \times \$2,520,000 \\
 &= \$176,400
 \end{aligned}$$

### Flat Ceding Commission

According to the background information, the flat ceding commission percentage required by the primary insurer is 20 percent of the estimated quota share reinsurance premium and is calculated as shown:

$$\begin{aligned}
 \text{Flat ceding commission} &= \text{Flat ceding commission percentage} \times \text{Estimated quota share reinsurance premium} \\
 &= 0.20 \times \$2,520,000 \\
 &= \$504,000
 \end{aligned}$$

### Estimated Average Losses and Loss Adjustment Expenses

To estimate losses and loss adjustment expenses, the reinsurer first estimates a loss ratio for the coming treaty year and then applies it to the treaty's subject premium. Past loss and premium information can be used to estimate a loss ratio, as shown in the exhibit. This estimate assumes that the primary



insurer's historical losses are representative of what the losses will be for the coming treaty year. See the exhibit "Calculation of Historical Loss Ratios for a Primary Insurer."

### Calculation of Historical Loss Ratios for a Primary Insurer

(1) Historical Accident Year	(2) Losses and Loss Adj. Exp.	(3) Earned Premiums	(4) (2) ÷ (3) Loss Ratio
1	\$3,803,595	\$5,763,023	0.66
2	4,073,302	6,266,619	0.65
3	3,659,134	5,808,149	0.63
4	4,149,709	6,193,595	0.67
5	4,007,660	6,261,969	0.64

Average = 0.65

[DA05158]

For each year, the reinsurer calculates a loss ratio by dividing losses and loss adjustment expenses by earned premiums, as shown in Column (4) of the "Calculation of Historical Loss Ratios for a Primary Insurer" exhibit. The reinsurer averages the resulting loss ratios to project the loss ratio that will occur in the coming treaty year, as shown on the bottom line of the exhibit. This projected loss ratio is 65 percent. If the historical loss ratios show an upward or downward trend, the reinsurer should project the loss ratio based on the trend rather than on the average.

The reinsurer can now estimate its average losses and loss adjustment expenses under the quota share treaty by multiplying the estimated quota share reinsurance premium by the projected loss ratio, as shown:

$$\begin{aligned}
 \text{Estimated average treaty losses} &= \text{Estimated quota share} \times \text{Projected} \\
 \text{and loss adjustment expense} &\text{reinsurance premium} \text{ loss ratio} \\
 &= \$2,520,000 \times 0.65 \\
 &= \$1,638,000
 \end{aligned}$$

The estimated amount of premium available for profit sharing is calculated by subtracting the reinsurer's costs and minimum profit, the flat ceding commission paid to the primary insurer, and the estimated average losses and loss adjustment expenses from the estimated quota share premium, as shown:





Estimated quota share premium	\$2,520,000
Reinsurer's costs and desired profit (7%)	(176,400)
Flat ceding commission to primary insurer (20%)	(504,000)
Estimated average losses and loss adjustment expense (65%)	(1,638,000)
Estimated amount of premium available for profit sharing	\$201,600

### Step 3: Determine a Percentage for the Profit-Sharing Commission

Before determining a percentage for the profit-sharing commission, the reinsurer must examine the volatility of the primary insurer's losses because actual losses could be higher or lower than the estimated average losses.

In this example, the primary insurer's loss ratio has been stable over the past few years at 63 percent to 67 percent. Because the underlying insurance appears to be sold at a profit with little catastrophe loss exposure, the reinsurer may quote a 50 percent profit-sharing commission so that both parties equally enjoy any additional profits realized.

The estimated profit-sharing commission amount is calculated as shown:

$$\begin{aligned}\text{Estimated profit-sharing commission} &= \text{Profit-sharing commission percentage} \times \text{Estimated amount of premium available for profit sharing} \\ &= 0.50 \times \$201,600 \\ &= \$100,800\end{aligned}$$

In this example, the reinsurer quotes the primary insurer a 50 percent profit-sharing rate in addition to the flat ceding commission. The profit-sharing commission percentage is applied to the amount of premium remaining after the reinsurer's costs and minimum profit, the flat ceding commission, and estimated average losses and loss adjustment expenses are subtracted.

Based on the calculations, the reinsurer estimates a profit-sharing commission of \$100,800, a flat ceding commission of \$504,000, and average losses and loss adjustment expenses of \$1,638,000. If the reinsurer assumes the quota share treaty, the profit-sharing calculation will be made at the end of the treaty year based on actual premium and losses. If actual losses are lower than the estimated average losses, the amount of profit sharing would increase. If actual losses are higher than the estimated average loss, the profit sharing would decrease until the amount available for profit sharing is zero. At that point, no profit-sharing commission would be paid. If the calculation generates a loss, some reinsurance treaties require the loss to be carried forward into the calculation of the reinsurance profit-sharing formula for subsequent treaty years. In addition, some profit-sharing calculations may also include provisions for incurred but not reported (IBNR) losses—which are typically found with quota share treaties that cover liability loss exposures.

## EVALUATING A QUOTA SHARE TREATY

Primary insurers and reinsurers should monitor and assess existing quota share treaties as part of reinsurance program design.

To evaluate the performance of a quota share treaty, a reinsurer should consider the long-term profit margin, which generally reflects the surplus relief effect for the primary insurer, the historical underwriting profit margin, and investment income.

Assume that the existing quota share treaty covers property insurance policies and is structured as illustrated. See the exhibit "Existing Property Quota Share Reinsurance Treaty."

### Existing Property Quota Share Reinsurance Treaty

#### Quota Share Structure:

25% Quota share applying on a net of all reinsurance basis

#### Sliding Scale Commission:

35% Provisional commission

30% Minimum commission

55% Specified loss ratio

Commission slides 0.5% inversely for each 1% the loss ratio differs from 55%

#### Historical Experience:

Subject written premiums \$44,000,000

Subject earned premiums \$40,000,000

Subject incurred losses including  
a sufficient provision for incurred  
but not reported (IBNR) \$26,400,000

[DA05336]

## Current Evaluation

From information in the exhibit, these calculations can be made concerning the existing quota share treaty:

The subject loss ratio is the subject incurred losses divided by the subject earned premiums.

$$\begin{aligned}\text{Subject loss ratio} &= \text{Subject incurred losses} \div \text{Subject earned premiums} \\ &= \$26,400,000 \div \$40,000,000 \\ &= 0.66\end{aligned}$$



The ceding commission is the provisional commission plus one-half of the difference between the specified loss ratio and the subject loss ratio.

$$\begin{aligned}\text{Ceding commission} &= \text{Provisional commission} + [0.5 \times (\text{Specified loss ratio} - \text{Subject loss ratio})] \\ &= 0.35 + [0.5 \times (0.55 - 0.66)] \\ &= 0.295\end{aligned}$$

The commission adjustment compares the ceding commission with the stated minimum commission. In this case, the ceding commission is less than the stated minimum commission, so the stated minimum commission of 30 percent applies.

Ceded written premiums are calculated by multiplying the quota share percentage by the subject written premiums.

$$\begin{aligned}\text{Ceded written premiums} &= \text{Quota share percentage} \times \text{Subject written premiums} \\ &= 0.25 \times \$44,000,000 \\ &= \$11,000,000\end{aligned}$$

Ceded earned premiums are calculated by multiplying the quota share percentage by the subject earned premiums.

$$\begin{aligned}\text{Ceded earned premiums} &= \text{Quota share percentage} \times \text{Subject earned premiums} \\ &= 0.25 \times \$40,000,000 \\ &= \$10,000,000\end{aligned}$$

The ceded incurred loss is the subject loss ratio multiplied by the ceded earned premiums.

$$\begin{aligned}\text{Ceded incurred losses} &= \text{Subject loss ratio} \times \text{Ceded earned premiums} \\ &= 0.66 \times \$10,000,000 \\ &= \$6,600,000\end{aligned}$$

These calculations can be used for a historical evaluation of the quota share treaty.

## Historical Evaluation

To evaluate the quota share treaty's performance, the reinsurer considers the long-term profit margin. The reinsurer's desired profit margin should reflect the surplus relief effect that the quota share treaty provides to the primary insurer, the historical underwriting profit margin, and investment income.



Supporting examples incorporating these factors use figures contained in, or derived from, the "Existing Property Quota Share Reinsurance Treaty" exhibit.

## Surplus Relief Effect

Ceded unearned premiums are calculated by subtracting the ceded earned premiums from the ceded written premiums.

$$\begin{aligned}\text{Ceded unearned premiums} &= \text{Ceded written premiums} - \text{Ceded earned premiums} \\ &= \$11,000,000 - \$10,000,000 \\ &= \$1,000,000\end{aligned}$$

The reinsurer pays the primary insurer a provisional commission of 35 percent of the ceded written premiums. However, \$1 million of that premium is unearned. The surplus relief effect experienced by the primary insurer is the provisional commission multiplied by the ceded unearned premiums.

$$\begin{aligned}\text{Surplus relief effect} &= \text{Provisional commission} \times \text{Ceded unearned premiums} \\ &= 0.35 \times \$1,000,000 \\ &= \$350,000\end{aligned}$$

## Underwriting Profit Margin

This is how the reinsurer's underwriting profit margin is calculated:

$$\text{Reinsurer's underwriting profit margin} = \frac{\left[ \text{Ceded earned premiums} - \text{Commissions} - \text{Expenses} - \text{Losses} \right]}{\text{Ceded earned premiums}}$$

The reinsurer can account for its commissions and expenses by adding an expense loading to the ceding commission and applying the combined percentage to the ceded earned premiums. Assume in this case that the general expense loading is 6 percent. The reinsurer would evaluate the past experience on the treaty using this formula:

$$\begin{aligned}\text{Reinsurer's underwriting profit margin} &= \frac{\left[ \text{Ceded earned premiums} - \left( \left( \text{Ceded commission} + \text{General expense loading} \right) \times \text{Ceded earned premiums} \right) - \text{Ceded incurred losses} \right]}{\text{Ceded earned premiums}} \\ &= \frac{[\$10,000,000 - ((0.30 + 0.06) \times \$10,000,000) - \$6,600,000]}{\$10,000,000} \\ &= \frac{[\$10,000,000 - \$3,600,000 - \$6,600,000]}{\$10,000,000} \\ &= \frac{-\$200,000}{\$10,000,000} \\ &= -0.02\end{aligned}$$

The reinsurer's underwriting profit margin is compared with the profit margin that the reinsurer desires, the surplus relief effect, and the amount of underwriting risk transferred. If the reinsurer's anticipated profit margin is 10 percent, the -2 percent actual profit margin (a loss) may prompt the reinsurer





not to renew the quota share treaty. Alternatively, the reinsurer may reduce the minimum sliding scale commission or change to a flat ceding commission.

### Investment Income

The reinsurer can estimate the investment income that it expects to earn on this treaty. Reinsurance treaties generate investment income for the reinsurer because the premium net of expenses can be invested until claims are paid.

Property claims generally settle rather quickly, so investment income will likely not be significant. However, liability claims often take years to settle, and the reinsurer may earn substantial investment income before losses are paid.

### SUMMARY

Quota share reinsurance, a form of pro rata reinsurance, involves sharing amounts of insurance, policy premiums, and losses using a fixed percentage. One way it is provided is on a treaty basis. Quota share treaties serve the primary functions of increasing large line capacity, providing catastrophe protection, facilitating withdrawal from a market segment, providing surplus relief, and providing underwriting guidance. The extent to which a quota share treaty fulfills these functions depends on the premium and losses of the subject business, as well as on the treaty's terms. Quota share treaties can apply before other pro rata reinsurance treaties (gross account basis), after other pro rata reinsurance (net of pro rata basis), or after all other reinsurance (net of all reinsurance basis). The order of indemnification affects the financial benefit the quota share treaty provides to the primary insurer.

Some common clauses are modified for use in quota share treaties. These clauses, which further refine and clarify details and relationships between the parties to a quota share treaty, include reinsuring clauses, definitions clauses, commencement and termination clauses, and reports and remittances clauses.

Clauses that are typically designed or adapted specifically for use in quota share treaties that enable the agreements to operate as such include retention and limits clauses; reinsurance premium clauses; sliding scale commission clauses; portfolio transfer clauses; losses, loss adjustment expenses, and salvages clauses; outside reinsurance clauses; warranties clauses; and original conditions clauses.

Because premium, limits, and losses are shared proportionately, the main pricing variable under quota share treaties is the ceding commission paid by the reinsurer to the primary insurer. The amount of ceding commission the reinsurer is willing to pay the primary insurer is affected by these key factors: (1) primary insurer's retention; (2) reinsurance treaty's limit; (3) primary insurer's policy acquisition expenses; (4) primary insurer's expected loss ratio on the portfolio, as well as its underwriting ability and rate adequacy; and (5) competition in the reinsurance marketplace.



The three steps to determine a profit-sharing ceding commission are: (1) estimate the quota share reinsurance premium, (2) subtract reinsurer and primary insurer costs, and (3) determine a percentage for the profit-sharing commission.

Primary insurers and reinsurers should monitor and assess the performance of existing quota share treaties as part of reinsurance program design. To evaluate a treaty's performance, a reinsurer should consider the long-term profit margin, which generally reflects the surplus relief effect for the primary insurer; the historical underwriting profit margin; and investment income.

