

Chapter 2

Types of Reinsurance and Reinsurance Program Design

The first chapter discussed the two types of reinsurance transactions: treaty and facultative. Treaty and facultative reinsurance can also be subcategorized based on whether the liability for losses is shared proportionally (pro rata) or nonproportionally (excess of loss). Exhibit 2-1 shows the types of reinsurance and their relationships.

Reinsurance agreements are negotiated between a primary insurer and reinsurer. In many respects, each agreement is unique and its terms reflect the primary insurer's needs and the willingness of reinsurers in the marketplace to meet those needs. A primary insurer often uses several reinsurance agreements, which viewed together comprise the primary insurer's reinsurance program. Reinsurance program design is also introduced in this chapter. Subsequent chapters describe in greater depth the types of reinsurance introduced in this chapter.

PRO RATA REINSURANCE

Pro rata reinsurance is usually identified as one of two types: quota share or surplus share. The common characteristic of both types of **pro rata reinsurance** is that the primary insurer and the reinsurer proportionately share the amounts of insurance, policy premiums, and losses (including loss adjustment expenses). For example, if the primary insurer shares 60 percent of the liability for each loss exposure with the reinsurer, then the reinsurer would be entitled to 60 percent of the policy premiums and would be responsible for 60 percent of each loss.

With pro rata reinsurance, the primary insurer cedes a portion of the original insurance premiums to the reinsurer as a reinsurance premium. The reinsurer usually pays the primary insurer a ceding commission for the loss exposures ceded. The ceding commission reimburses the primary insurer for policy acquisition expenses incurred when the underlying policies were sold. In addition to policy acquisition expenses, insurers incur **loss adjustment expenses**, which are the expenses required to settle claims. Loss adjustment expenses that can be related to a specific loss are usually shared proportionately by the primary insurer and the reinsurer.

Pro rata reinsurance

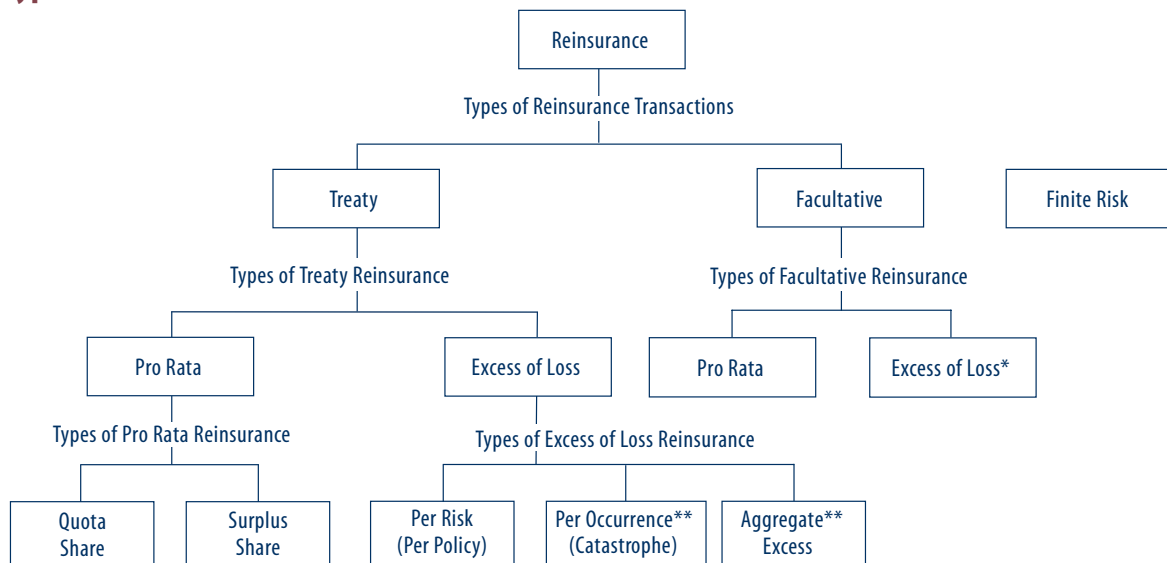
A type of reinsurance in which the primary insurer and reinsurer proportionately share the amounts of insurance, policy premiums, and losses (including loss adjustment expenses).

Loss adjustment expenses

Expenses incurred by an insurer to settle claims.

EXHIBIT 2-1

Types of Reinsurance



* Excess of loss reinsurance written on a facultative basis is always on a per risk or per policy basis.

** Per occurrence and aggregate excess of loss reinsurance relate to a type of insurance, a territory, or the primary insurer's entire portfolio of in-force loss exposures rather than to a specific policy or a specific loss exposure.

Flat commission

A ceding commission that is a fixed percentage of the ceded premiums.

Profit-sharing commission

A ceding commission that is contingent on the reinsurer realizing a predetermined percentage of excess profit on ceded loss exposures.

Sliding scale commission

A ceding commission based on a formula that adjusts the commission according to the profitability of the reinsurance agreement.

The amount of the ceding commission paid to the primary insurer is usually negotiated. The primary insurer remits the reinsurance premium to the reinsurer net of the ceding commission. The ceding commission is referred to as a **flat commission** when it is a fixed percentage of the ceded premium with no adjustment for the primary insurer's loss experience.

The reinsurance agreement may also include an additional commission, called a **profit-sharing commission** or profit commission, which is negotiated and paid to the primary insurer after the end of the treaty year if the reinsurer earns greater-than-expected profits on the reinsurance agreement. The profit-sharing commission percentage is predetermined and applied to the reinsurer's excess profits; that is, the profits remaining after losses, expenses, and the reinsurer's minimum margin for profit are deducted. Profit commission is also called contingent commission because its payment is contingent on the reinsurance agreement's profitability.

Sometimes, as an alternative to the flat commission and profit-sharing commission, the ceding commission initially paid to the primary insurer may be adjusted to reflect the actual profitability of the reinsurance agreement. This type of commission is called a **sliding scale commission** and is calculated based on a formula specified in the reinsurance agreement.

Quota Share Reinsurance

Quota share reinsurance is a type of pro rata reinsurance in which the primary insurer and the reinsurer share the amounts of insurance, policy premiums, and losses (including loss adjustment expenses) using a fixed percentage. For example, an insurer may arrange a reinsurance treaty in which it retains 45 percent of policy premiums, coverage limits, and losses while reinsuring the remaining amount. Because the reinsurer accepts 55 percent of the liability for each loss exposure subject to the treaty, this treaty would be called a “55 percent quota share treaty.” Quota share reinsurance can be used with both property insurance and liability insurance but is more frequently used in property insurance.

Most reinsurance agreements specify a maximum dollar limit above which responsibility for additional coverage limits or losses reverts to the primary insurer (or is covered by another reinsurer). With a pro rata reinsurance agreement, that maximum dollar amount is stated in terms of the coverage limits of each policy subject to the treaty. For example, a primary insurer and a reinsurer may share amounts of insurance, policy premiums, and losses on a 45 percent and 55 percent basis respectively, subject to a \$1 million maximum coverage amount for each policy.

In addition to a maximum coverage amount limitation, some pro rata reinsurance agreements include a per occurrence limit, which restricts the primary insurer’s reinsurance recovery for losses originating from a single occurrence. This per occurrence limit may be stated as an aggregate dollar amount or as a loss ratio cap. **Loss ratio** is the ratio of incurred losses and loss adjustment expenses to earned premiums. The per occurrence limit diminishes the usefulness of pro rata reinsurance in protecting the primary insurer from the effects of catastrophic events. Primary insurers exposed to catastrophic losses usually include catastrophe excess of loss reinsurance, described later in this chapter, in their reinsurance programs.

Exhibit 2-2 shows how the amounts of insurance, policy premiums, and losses would be shared between a primary insurer and a reinsurer for three policies subject to their quota share treaty. These same examples are repeated in the discussion of surplus share reinsurance that follows so that a contrast can be drawn between these two types of pro rata reinsurance.

The following observations can be made about quota share reinsurance:

- As the retention and cession amounts are each a fixed percentage, the dollar amount of the retention and the dollar amount of the cession change as the amount of insurance changes. On policies with higher amounts of insurance, the primary insurer will have a higher dollar retention.
- Because the primary insurer cedes a fixed percentage under a quota share treaty, even policies with low amounts of insurance that the primary insurer could most likely safely retain are reinsured.

Quota share reinsurance

A type of pro rata reinsurance in which the primary insurer and the reinsurer share the amounts of insurance, policy premiums, and losses (including loss adjustment expenses) using a fixed percentage.

Loss ratio

The ratio of incurred losses and loss adjustment expenses to earned premiums.

EXHIBIT 2-2

Quota Share Reinsurance Example

Brookgreen Insurance Company has a quota share treaty with Cypress Reinsurer. The treaty has a \$250,000 limit, a retention of 25 percent, and a cession of 75 percent. The following three policies are issued by Brookgreen Insurance Company and are subject to the pro rata treaty with Cypress Reinsurer.

- Policy A insures Building A for \$25,000 for a premium of \$400, with one loss of \$8,000.
- Policy B insures Building B for \$100,000 for a premium of \$1,000, with one loss of \$10,000.
- Policy C insures Building C for \$150,000 for a premium of \$1,500, with one loss of \$60,000.

Division of Insurance, Premiums, and Losses Under Quota Share Treaty

	Brookgreen Insurance Retention (25%)	Cypress Reinsurance Cession (75%)	Total
Policy A			
Amounts of insurance	\$6,250	\$18,750	\$25,000
Premiums	100	300	400
Losses	2,000	6,000	8,000
Policy B			
Amounts of insurance	\$25,000	\$75,000	\$100,000
Premiums	250	750	1,000
Losses	2,500	7,500	10,000
Policy C			
Amounts of insurance	\$37,500	\$112,500	\$150,000
Premiums	375	1,125	1,500
Losses	15,000	45,000	60,000

