

# Features of Non-proportional Reinsurance

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# Agenda

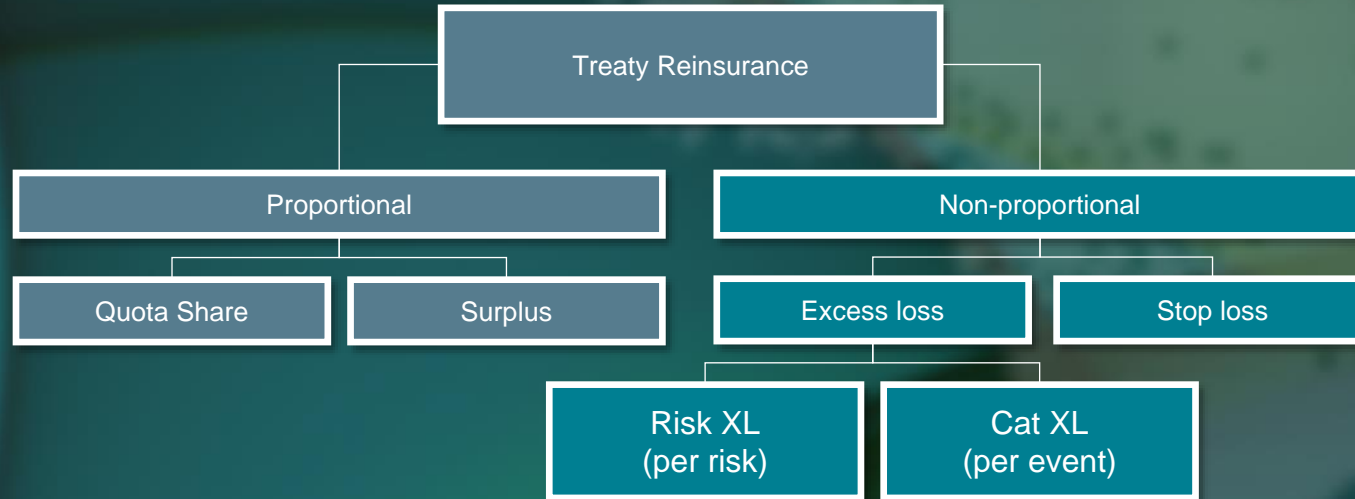
01 | Overview

02 | Gross Net Retained Premium Income

03 | Minimum / Deposit Premium and MDP adjustment

04 | Reinstatement Premiums

# Overview



## Gross Net Retained Premium Income

- **Proportional:**
  - Reinsured pays a portion of the original gross premium (OGP) to Reinsurers. (In proportion to the sharing of the risk.)
- **Non-proportional:**
  - The balance of premium is **retained** by the Reinsured and protected by Non-proportional Reinsurance. This = **Gross Net Retained Premium Income (GNRPI)**.



## Minimum / Deposit Premium

- The Reinsurer calculates the premium that the Insurer must pay for Non-proportional reinsurance treaties.
  - Reinsurance underwriters price the business (using the Insurer's prior loss experience, estimated premium income, exposure info. etc) and come up with a **rate** per layer.
  - This rate could be a **flat** rate or a **variable** rate. (Mostly flat rates in our market.)
  - This rate is applied to the GNRPI to arrive at the amount of premium that the Reinsured must pay to Reinsurers for the cover.
  - Reinsurers allow a 10% discount in case the Reinsured does not meet their estimated premium income.
  - This 90% premium payment due by the Reinsured is called the '**Minimum and Deposit Premium**' (MDP) or '**Deposit Premium**'. (MDP only in our market.)



## Example: MDP

### Exercise:

**EPI:** R 450,000,000

**Rate:** 0.1556%

**MDP:** 90%

**Payable:** Half Yearly

### Calculation

$$450,000,000 \times 0.1556\% = 700,000$$

$$700,000 \times 90\% = 630,000$$

$$630,000 / 2 = 315,000$$



## MDP Adjustment

- The MDP / DP is paid to Reinsurers in installments – usually quarterly or semi-annually in advance.
- At inception of the treaty, the rate is applied to the **estimated** GNRPI. (Hence the premium paid by Reinsured is a **deposit** premium.)
- At expiry of treaty period, the **actual** GNRPI will be known.
  - A premium adjustment is calculated and the difference between the estimated and actual premium is determined. (Referred to as the “MDP adjustment.”)
    - If actual GNRPI x rate > MDP / DP: additional premium is due to the Reinsurer.
    - If actual GNRPI x rate < MDP / DP:
      - For MDP: no refund of premium by Reinsurer to Reinsured because it was a **minimum** and deposit premium.
      - For DP: Reinsurer must refund the difference to the Reinsured because it was a **deposit** premium only i.e. no minimum premium was required.



## ● Example: MDP adjustment ●

### Exercise:

**EPI:** R 450,000,000

### Layer 1

**MDP:** R 630,000, payable in 2 equal instalments.

Adjustable at a **rate** of: 0.1556%

### Calculate the adjustment premium if:

- *The actual GNRPI = R 455,000,000*
- 2. *The actual GNRPI = R 400,000,000*



## • Example: MDP adjustment •

### Solution:

If actual GNRPI = R 455,000,000, adjustment premium =  
 $455,000,000 \times 0.1556\% = 707,980$  less MDP 630,000 = 77,980.  
Additional premium to be paid by Reinsured to Reinsurer = R 77,980.

2. If actual GNRPI = R 400,000,000, adjustment premium =  
 $400,000,000 \times 0.1556\% = 622,400$ . This is 7,600 less than the MDP of 630,000.

Therefore:

- No additional premium due by Reinsured.
- Reinsurer does not have to refund the amount of 7,600 to the Reinsured because this is a **minimum** & deposit premium.



## Reinstatement Premiums

- The Reinsured has to pay **additional premium** when the cover is reinstated.
- Reinstatement premium can be any / all of the following:
  - “Free” ie pre-paid (Reinsurers will price for this.)
  - Any percentage of the premium eg 100%; 50%; 125% etc
  - Pro-rata to amount reinstated.
  - Pro-rata to time remaining until treaty period expires. (Not given in our market.)
    - Most treaty reinstatement conditions are ‘100% additional premium to time, pro-rata to amount’.
- Reinsurers off-set the reinstatement premium against the claim payment.



## Reinstatement Premiums

Reinstatement Premium formulae:

### **Pro rata to amount, 100% to time**

$$\frac{\text{Loss to Cover}}{\text{Cover}} \times \text{Premium}$$

### **Pro rata to amount and time**

$$\frac{\text{Loss to Cover}}{\text{Cover}} \times \text{Premium} \times \frac{\text{time (days) left before treaty}}{365 \text{ days}}$$



## Example: Reinstatement Premiums

### Example:

- XoL Treaty R 500,000 xs R 200,00 for 1 Jan – 31 Dec
- 1 reinstatement 100% additional premium to time, pro rata to amount
- Premium (MDP) = R 25,000
- Claim = R 600,000 on 1 Sept

### Exercise

#### Calculate the reinstatement premium:

- In accordance with the condition above
- As above but pro rata to time and amount.



## Example: Reinstatement Premiums

### Solution:

$$\begin{aligned} & \text{▪ } \textit{Reinstatement Premium} \\ & = \frac{400,000^{**}}{500,000} \times 25,000 \\ & = \text{R } 20,000 \end{aligned}$$

\*\* R 600,000 – R 200,000 (priority) = loss to cover.

$$\begin{aligned} & 2. \textit{Reinstatement Premium} \\ & = 20,000 \times 4/12 = \text{R } 6,666 \end{aligned}$$



## Example: Reinstatement Premiums Adjustment

### Solution:

- Reinstatement Premium Adjustment

$$= \frac{400,000^{**}}{500,000} \times 30,000$$

= R 24,000 Less Paid R20 000 = R 4 000 additional R/I Premium

\*\* R 600,000 – R 200,000 (priority) = loss to cover.

### 2. Reinstatement Premium Adjustment

$$= 24,000 \times 4/12 = R 8 000 \text{ Less Paid R6 666} = R 1 334 \text{ additional R/I Premium}$$



# Questions!

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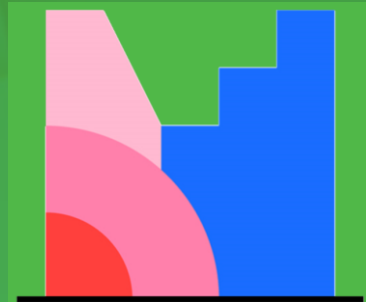


Thank you!

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