LIMA Programme

Reinsurance Features

11/09/2023

Suhail Solim

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NOT IF, BUT HOW

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Agenda

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Reinsurance Features

Proportional

- Commissions (flat, sliding scale and profit commissions)
- Loss corridors / participation

Non-Proportional

- Reinstatements
- Annual Aggregate Deductible (AAD)
- Annual Aggregate Limit (AAL)
- Layering

Alternative

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01 Proportional Reinsurance Features

Proportional Reinsurance Features

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Flat Commission

- Easy, simple and straight forward
- Fixed Percentage of ceded original gross premium

Loss Participation

Profit Commission

Sliding Scale

Flat Commission

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as fixed percentage of the ceded original gross premium

Upon renewal:
Percentage is negotiated according to

- **Acquisition costs**
- **Results**
- **Quality of business**

Proportional Reinsurance Features

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Flat Commission

- Easy and straight forward
- Fixed Percentage of ceded original gross premium

Loss Participation

Profit Commission

- Is a result dependent condition
- Profit is shared after deducting losses, brokerage, commission and reinsurance expenses from earned premium
- No profit commission if there is no profit

Sliding Scale

Profit Commission

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Profit commission

=

Earned Premium

less Expected Losses

less Brokerage

less Commission

less Reinsurance Expenses

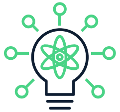
No profit commission may be agreed for treaties with extreme fluctuations in claims experience, e.g. earthquake, engineering treaties, liability treaties, credit/surety treaties.

Loss on Treaty → **No Profit Commission Paid**

Proportional Reinsurance Features

Flat Commission

- Easy and straight forward
- Fixed Percentage of ceded original gross premium



Profit Commission

- Is a result dependent condition
- Profit is shared after deducting losses, brokerage, commission and reinsurance expenses from earned premium
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Loss Participation/Corridor

- Is a result dependent condition
- Losses between 2 specified loss ratios are shared between the insurer and reinsurer at a specified percentage

Sliding Scale

Loss Participation

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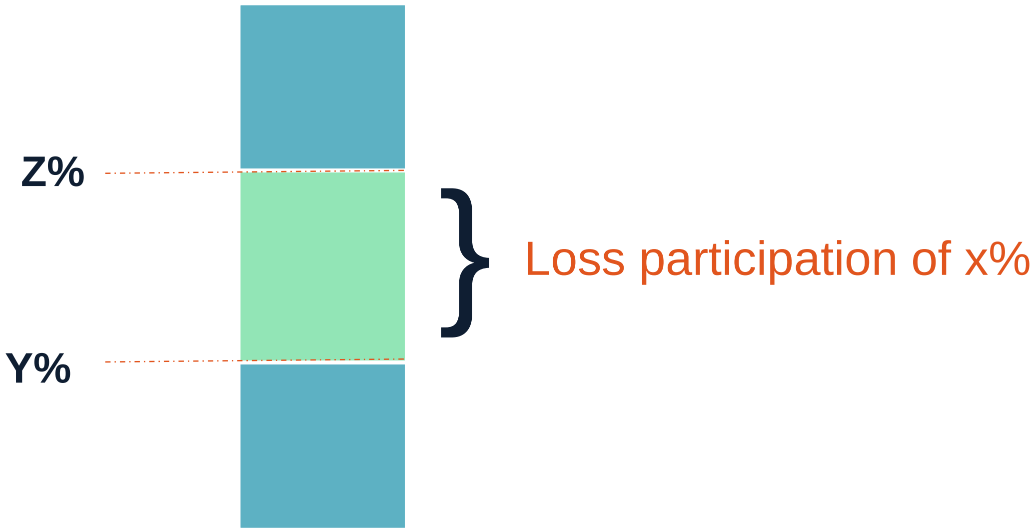

Only for treaties with high loss probabilities and thus poor performance. Introduced mainly to improve risk selection by the primary insurer

Insured pays x% for losses between y% loss ratio and z% of loss ratio

Proportional Reinsurance Features

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Flat Commission

- Easy and straight forward
- Fixed Percentage of ceded original gross premium

Loss Participation

- Is a result dependent condition
- Losses between 2 specified loss ratios are shared between the insurer and reinsurer at a specified percentage

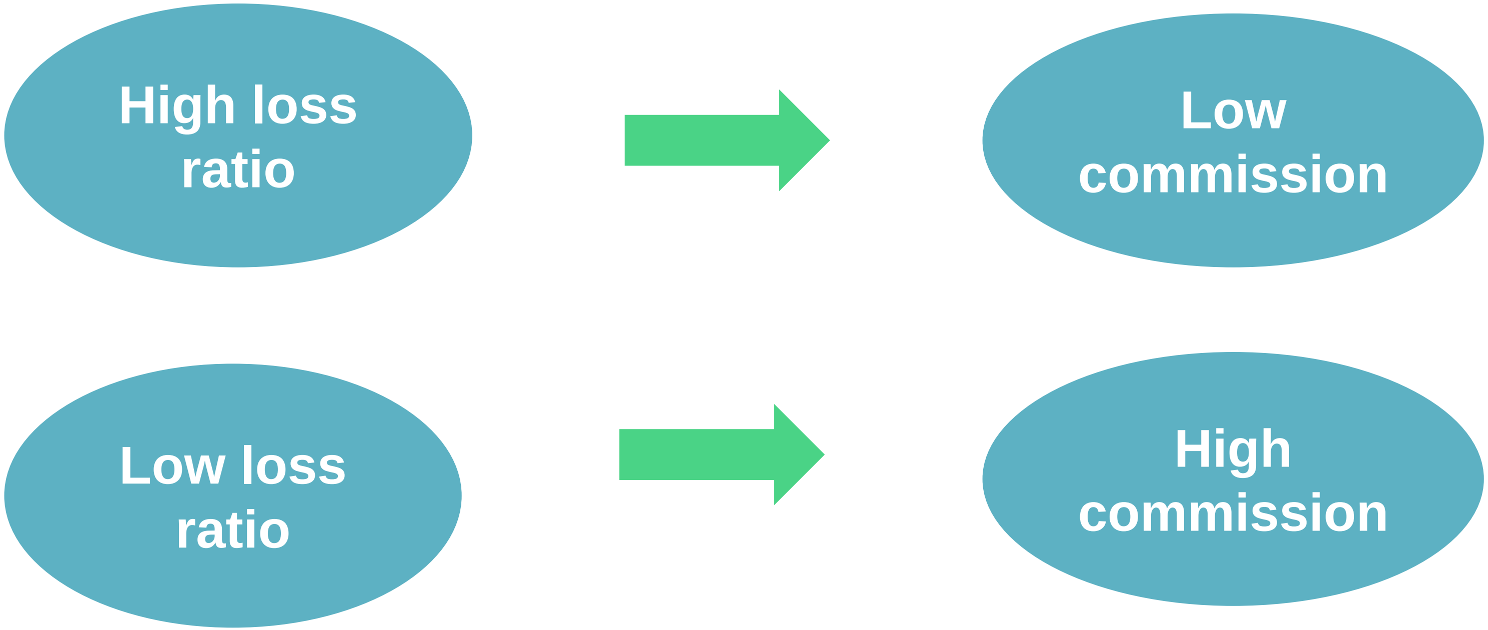
Profit Commission

- Is a result dependent condition
- Profit is shared after deducting losses, brokerage, commission and reinsurance expenses from earned premium
- No profit commission if there is no profit

Sliding Scale

- Is a result dependent condition
- Variable commissions that depend on the results of the business covered
- A provisional commission is also predefined.

Sliding Scale



Sliding Scale

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Sliding Scale

Example

- QS Premium: ZAR 165,038,384
- Incurred Loss Ratio: ZAR 78,393,232

- LR:
- Commission:

LR	Commission
46.00%	51.50%
47.00%	50.50%
48.00%	49.70%
49.00%	48.70%

$$\text{Commission} = \text{Minimum commission} + \frac{\text{Maximum loss ratio} - \text{Actual loss ratio}}{\text{Factor}}$$

$$\text{Factor} = \frac{\text{Maximum loss ratio} - \text{Minimum loss ratio}}{\text{Commission @ max LR} - \text{Commission @ min LR}}$$

Sliding Scale

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Example
- QS Premium: ZAR 165,038,384
- Incurred Loss Ratio: ZAR 78,393,232

- LR: 47.50%
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Sliding Scale

Example

- QS Premium: ZAR 165,038,384
- Incurred Loss Ratio: ZAR 78,393,232

- LR: 47.50%
- Commission: 50.10%

LR	Commission
46.00%	51.50%
47.00%	50.50%
48.00%	49.70%
49.00%	48.70%

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Sliding Scale

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When should sliding scale be considered:

- It can be used to provide an override to the client, but only when it is earned based on results (akin to a profit commission); therefore a sliding scale can be used to ensure that the client's interests are deeply aligned with our own (reduce moral hazard).

- To help smooth out our results for a volatile book of business. A sliding scale may enable us to accept a lower margin (than otherwise acceptable) on these types of deals in exchange for the downside protection granted by the structure.

- In case the pricing loss model is uncertain, e.g. for start-up companies, sliding scale structures limit the modelling risk for a certain extent.

- In case the treaty is substantially influenced by the risk of random fluctuation, e.g. Nat Cat business, sliding scale structures are inappropriate as we would not be allowed to establish reserves for unexpected major losses.

- When there is a difference in opinion between the client and MR on the expected loss ratio. This may enable us to provide a commission acceptable to the client if they perform to their expectations while providing us with the downside protection if they do not.

Alternative

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Non-Proportional Reinsurance Features

Proportional Reinsurance Features

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Reinstatements

- Provides additional limit for the cedent
- Reinstatements can be free or paid.

Annual Aggregate Deductible

Annual Aggregate Limit

Layering

Reinstatements

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Main features:

- The number of reinstatements indicates the **amount of limits** granted to the direct insurer per year, in addition to the original limit

- For each layer of an XL-program, **separate reinstatement conditions** may be agreed

- For each reinstatement, the corresponding **reinstatement premium** may be **fixed individually** [e.g. 0% (free), 50% or 100% of XL-premium (prepaid)]

- Reinstatements are either pro rata temporis (by time) or pro rata capita (by amount)

Reinstatements

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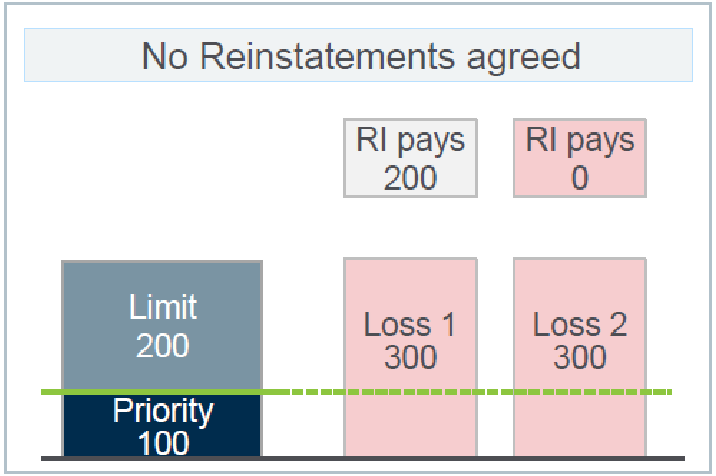
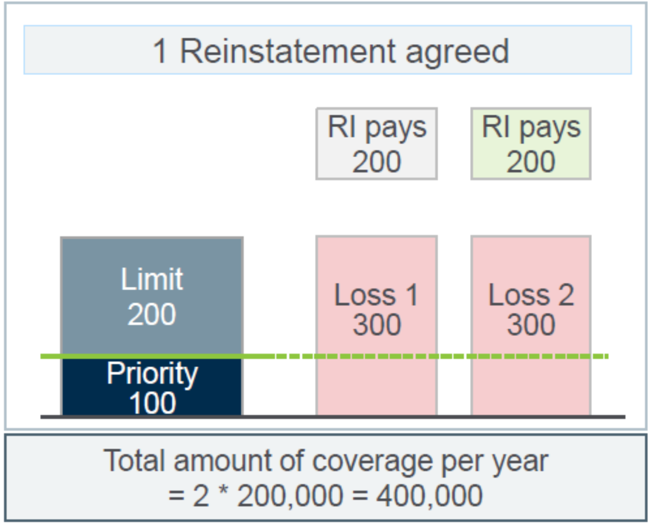
200 xs 100, 1 reinstatement, 100% reinstatement premium





Reinstatements

Reinstatement agreements can differ per reinstatement and per layer

Example: Layer 1 200 xs 100 1st Reinstatement 110% Reinstatement premium
2nd & 3rd Reinstatement 80% Reinstatement premium
4th Reinstatement free of charge
Layer 2 300 xs 300 1st-3rd Reinstatement 120% Reinstatement premium

Calculation of reinstatement premium (pro rata amount):

$$\text{RI Premium} = \frac{\text{Excess Loss}}{\text{Limit}} * \text{XL Premium} * \frac{\text{Reinst. Percentage}}{100}$$

Example: 200 xs 100, 1 reinstatement, XL premium 20, 110% reinstatement premium

$$\frac{80}{200} * 20 * \frac{110}{100} = 8{,}8$$

Reinstatements

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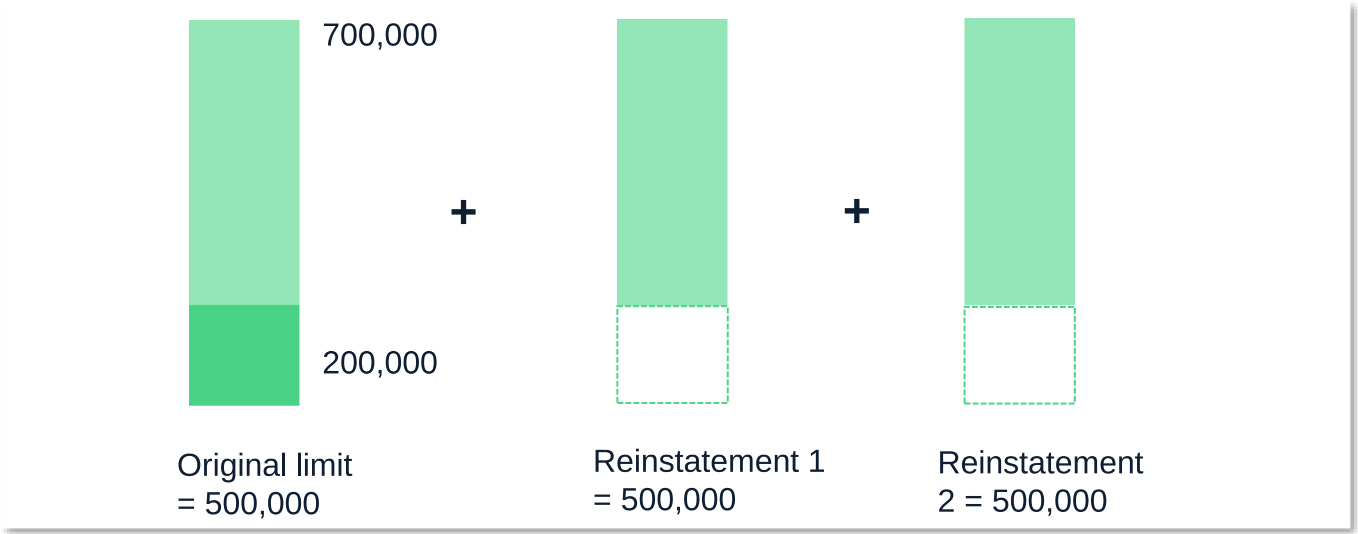
Example: 500,000 xs 200,000 with 2 Reinstatements

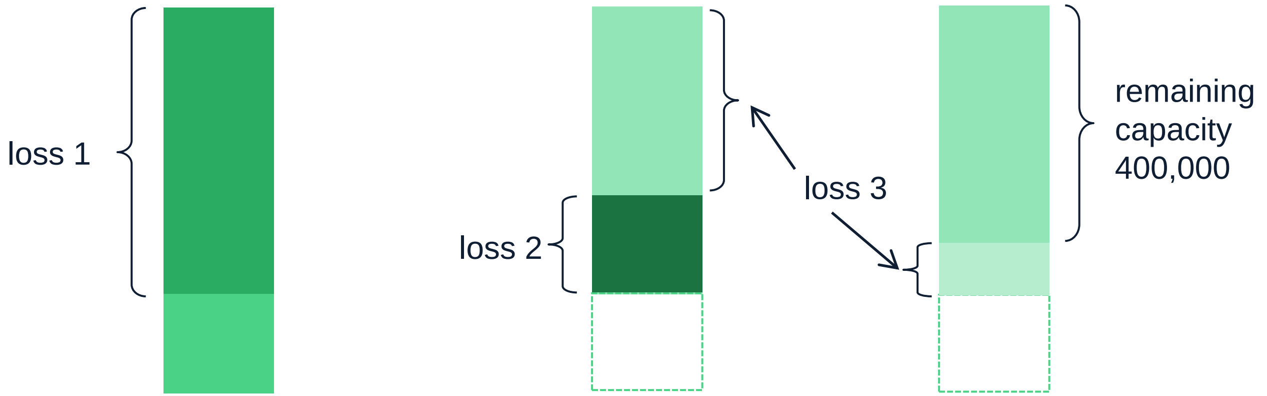


Total amount of Coverage per year = 3 * 500,000
= 1,500,000

Reinstatements

Example: 500,000 xs 200,000 with 2 Reinstatements

loss 1: 700,000 ➡ XL- loss: 500,000
loss 2: 400,000 ➡ XL- loss: 200,000
loss 3: 600,000 ➡ XL- loss: 400,000



Proportional Reinsurance Features

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Reinstatements

- Provides additional capacity if capacity is vertically used up

Annual Aggregate Deductible

Annual Aggregate Limit

- Liability of reinsurer is limited to an Annual Aggregate Limit (AAL)
- The AAL represents a multiple of the liability per layer but a different amount is also possible
- There is no specific charge if the AAL is used (this is already included in the price)

Layering

Annual Aggregate Limit

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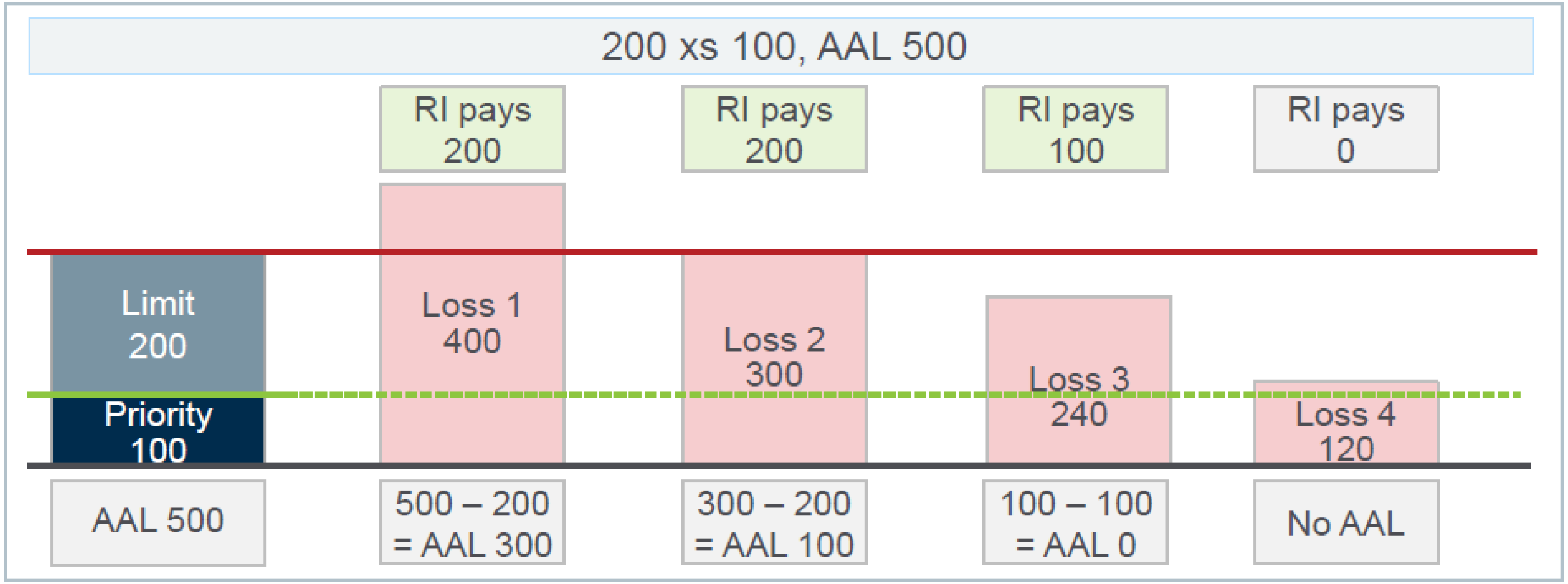

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Annual Aggregate Deductible

- The Annual Aggregate Deductible (AAD) characterises an amount in excess of the priority of an XL-treaty, which would be taken over by the reinsurer, but which is paid by the direct insurer
- Usually, the size of an AAD is a multiple of the priority of the layer
- AADs only make sense for layers with a high loss frequency

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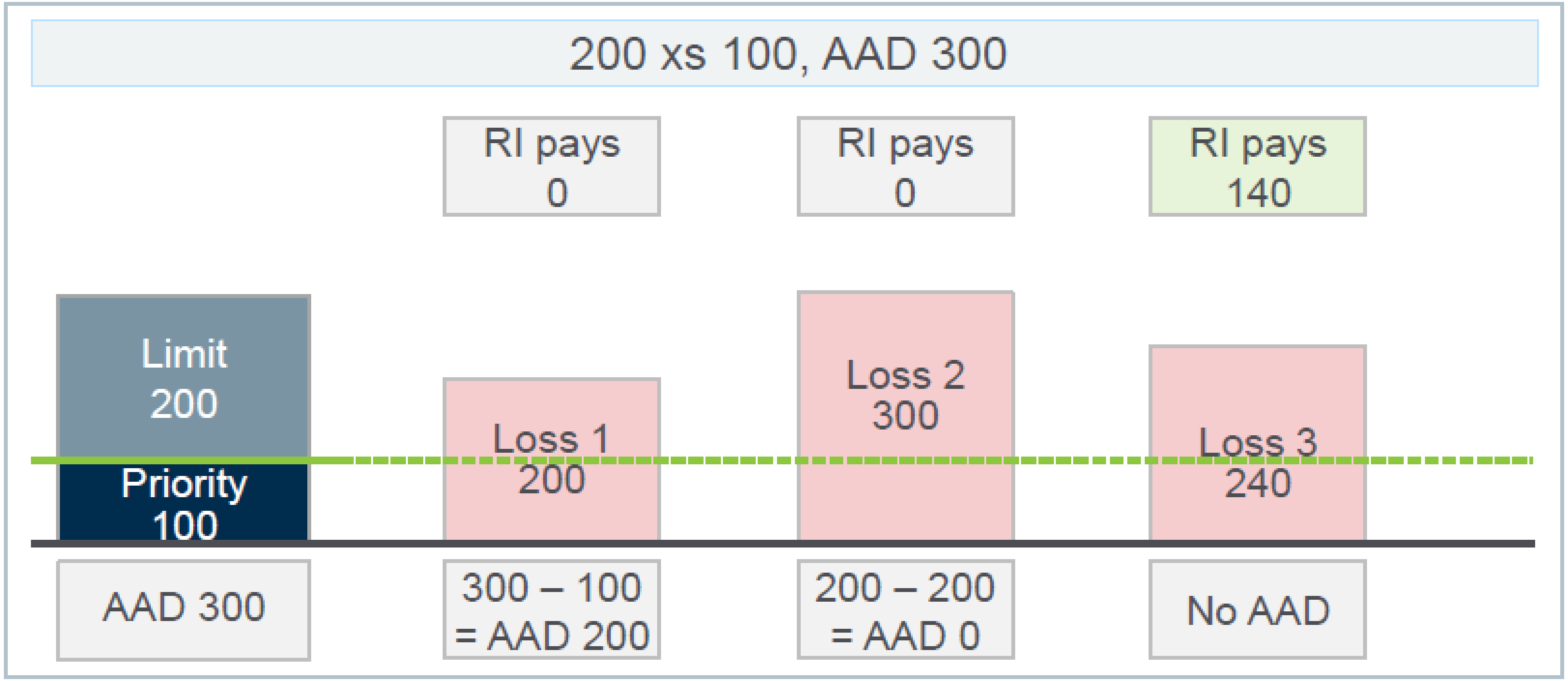

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Layering

- Layering is a method to divide an XL cover into various consecutive layers

Layering

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General proceeding:

• The priority of the first layer equals to the priority of the whole cover, the priority of the following layers corresponds to the ceiling of the preceding layers (no gaps)

• The sum of the limits of all layers corresponds to the total limit of the cover

• Example:
  - The direct insurer requires XL capacity of 19,000,000
  - The overall retention should amount to 1,000,000

1st	Layer:	2,000,000	xs	1,000,000
2nd	Layer:	5,000,000	xs	3,000,000
3rd	Layer:	12,000,000	xs	8,000,000
		19,000,000	xs	1,000,000

Layering

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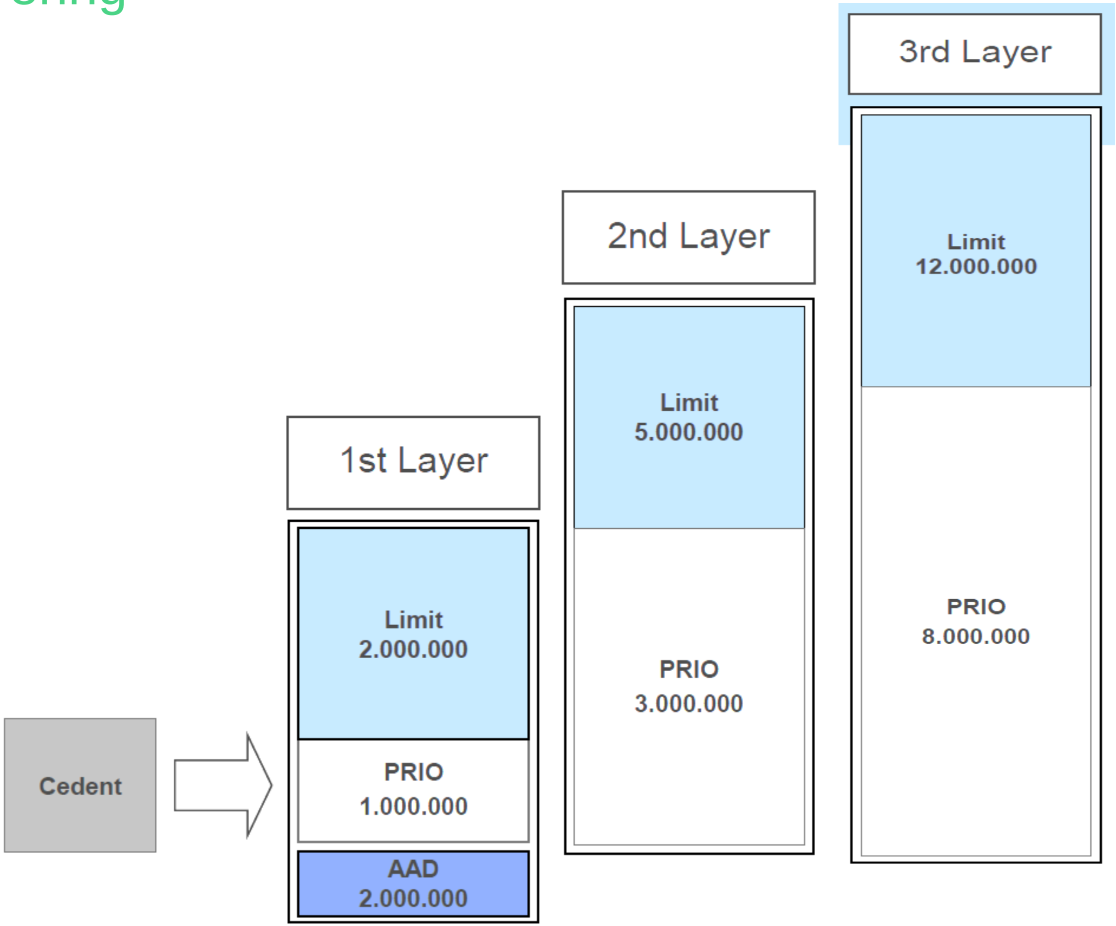

Layering

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Reasons for layering (among others)**:**

- Generally, the placement of a subdivided XL program is easier:
  - Some reinsurers tend to accept high-premium (though claims-prone) for lower layers
  - Others prefer low-premium (but less exposed) top layers
- Coverage according to varying scope of cover, e.g. territorial scope, covered risks
- Different numbers of reinstatements per layer may be applied

Thank you for your attention!

11/09/2023
Suhail Solim

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