## Annual Accounts

## NOT IF, BUT HOW

March 2023
Naren Lalloo

## Munich RE




Commissions

## 02

Sliding-Scale

Commissions Calculations


Commissions

## Reinsurance Commissions

$>$ The direct Insurer's administrative costs are, however, not reduced through reinsurance, so we as the reinsurer generally returns this portion of the premium to the direct insurer in the form of a reinsurance commission.
$>$ On the other hand, the reimbursement of the original costs or even of a lower percentage of these costs can be open to negotiation if the insurance business produces negative results over a period of several years.



## Sliding-Scale Commission Calculation

> Definition:

- The Sliding-Scale Commission calculation is a system of calculation to adapt the reinsurance commission to the profitability of ceded business.
- To evaluate ceded business, the loss ratio is used which shows the relation between the incurred losses and earned premium.
- According to this loss ratio, the appropriate commission rate can be calculated, using the sliding scale agreements determined in the treaty conditions.
- So, in case of profitability business, sliding scale commission can be a kind of "reward" granted by the reinsurer to the cedant.


## Sliding Scale Commission Calculation, Calender Year

```
Loss Ratio in % = Incurred Losses / Earned Premium x 100
```

Earned Premium = + Written Premium

+ Unearned Premiums at the beginning of the year
- Unearned Premiums at the end of the year

Incurred Losses = - Paid Losses

+ Loss Reserve Entry current/ Withdrawal previous year
- Loss Reserve Withdrawal current year

Example:

$$
\frac{35.000}{100.000} \quad * 100=35 \%
$$

## Sliding Scale Commission Calculation, Calendar Year

Munich RE

Treaty Stipulations:
Minimum Commission in \%: 30
Maximum Commission in \%: 40
Maximum Loss Ratio in \%: 50
Minimum Loss Ratio in \%: 30
Provisional Commission in \%: 35
Proportion: 1 point of commission corresponds to 2 points of loss ratio

The Scale in this case:

| Commission in \% | Loss Ratio |
| :---: | :--- |
| 30 | more than $48 \%$ including $50 \%$ and more |
| 31 | more than $46 \%$ including $48 \%$ |
| 32 | more than $44 \%$ including $46 \%$ |
| 33 | more than $42 \%$ including $44 \%$ |
| 34 | more than $43 \%$ including $42 \%$ |
| 35 | more than $38 \%$ including $40 \%$ |
| 36 | more than $36 \%$ including $38 \%$ |
| 37 | more than 34\% including 36\% |
| 38 | more than 32\% including 34\% |
| 39 | more than 30\% including 32\% |
| 40 | less than 30\% including 30\% |

Basic reinsurance accounting concepts - proportional treaty

## Calculation of Sliding Scale - Calendar Year

> Steps:

- Calculation of Incurred Losses and Earned Premium
- Calculation of Loss Ratio
- Determination of the commission rate according to the scale
- Appliance of the commission rate to the premiums written
- Adjustment of the commission


## Sliding Scale Commission Calculation, Calendar Year

## Statements of Account for the Fire 1st Surplus Treaty

| Currency: EURO | 4th Quarter 2009 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Debit | Credit |  |  |  |  |  |  |
| Premium |  | 100.000 |  |  |  |  |  |  |
| Commission $35 \%$ | 35.000 |  |  |  |  |  |  |  |
| Overrider 2,5\% | 2.500 |  |  |  |  |  |  |  |
| Paid Losses | 50.000 |  | Unearned Premium Reserves as at 31.12.2009: Loss Reserves as at 31.12.2009: |  |  |  | -96.000 |  |
| Balance due to you | 12.500 |  |  |  |  |  | -150.00 |  |
|  | 100.000 | 100.000 |  |  |  |  |  |  |
| Currency: EURO | 1st Quarter 2010 |  | 2nd Quarter 2010 |  | 3rd Quarter 2010 |  | 4th Quarter 2010 |  |
|  |  |  |  |  |  |  |  |  |
|  | Debit | Credit | Debit | Credit | Debit | Credit | Debit | Credit |
| Premium |  | 80.000 |  | 100.000 |  | 70.000 |  | 90.000 |
| Commission 35 \% | 28.000 |  | 35.000 |  | 24.500 |  | 31.500 |  |
| Overrider 2,5\% | 2.000 |  | 2.500 |  | 1.750 |  | 2.250 |  |
| Paid Losses | 30.000 |  | 20.000 |  | 22.000 |  | 35.000 |  |
|  |  |  |  |  |  |  |  |  |
| Balance due to you | 20.000 |  | 42.500 |  | 21.750 |  | 21.250 |  |
|  | 80.000 | 80.000 | 100.000 | 100.000 | 70.000 | 70.000 | 90.000 | 90.000 |
| Unearned Premium Reserves as at 31.12.2010: Loss Reserves as at 31.12.2010: |  |  | -120.000 |  |  |  |  |  |
|  |  |  | -170.000 |  |  |  |  |  |

```
Exercise - please fill in the Calculation!
```


## Sliding Scale Commission Calculation, Calendar Year

## Treaty Stipulations:

Minimum Commission in \%: 30
Maximum Commission in \%: 40
Provisional Commission in \%: 35
Proportion: 1 point of commission corresponds to 2 points of loss ratio

The Scale in this case:

| Commission in \% | Loss Ratio |
| :---: | :--- |
| 30 | more than $48 \%$ including 50\% and more |
| 31 | more than $46 \%$ including $48 \%$ |
| 32 | more than $44 \%$ including $46 \%$ |
| 33 | more than $42 \%$ including $44 \%$ |
| 34 | more than $40 \%$ including $42 \%$ |
| 35 | more than 38\% including $40 \%$ |
| 36 | more than 36\% including 38\% |
| 37 | more than 34\% including 36\% |
| 38 | more than 32\% including 34\% |
| 39 | more than 30\% including 32\% |
| 40 | less than 30\% including 30\% |

## Sliding Scale Commission Calculation, Calendar Year

Solution:

Treaty Stipulations
Maximum Loss Ratio in \%: 50
Minimum Loss Ratio in \%: 30

## YEAR 2010

Minimum Commission in \%: 30
Maximum Commission in \%: 40
Provisional Commission in \%: 35

Currency: EURO

| Premiums written <br> Unearned premium income <br> Unearned premium outgo |  |
| :--- | :--- |
| Earned premiums |  |
| Claims paid <br> Outstanding losses income <br> Outstanding losses outgo |  |
| Incurred losses |  |
| Loss Ratio <br> Commission acc. to sliding scale in \% |  |
| Commission |  |
| Commission provisionally charged in \% |  |$\quad$| Commission already charged |
| :--- |
| Adjustment due |

## Sliding Scale Commission Calculation, Calendar Year

Solution:

Treaty Stipulations
Maximum Loss Ratio in \%: 50
Minimum Loss Ratio in \%: 30

## YEAR 2010

Minimum Commission in \%: 30
Maximum Commission in \%: 40
Provisional Commission in \%: 35

Currency: EURO

| Premiums written <br> Unearned premium income <br> Unearned premium outao | $\begin{gathered} 340000 \\ 96000 \\ -120000 \end{gathered}$ |
| :---: | :---: |
| Earned premiums | 316000 |
| Claims paid <br> Outstanding losses income <br> Outstanding losses outgo | $\begin{aligned} & -107000 \\ & +150000 \\ & -170000 \end{aligned}$ |
| Incurred losses | 127000 |
| Loss Ratio <br> Commission acc. to sliding scale in \% | $\begin{gathered} 40,19 \% \\ 34 \% \\ \hline \end{gathered}$ |
| Commission | 115600 |
| Commission provisionally charged in \% | 35\% |
| Commission already charged | 119000 |
| Adjustment due | 3400 |

## TREATY CONDITIONS:

| Maximum loss ratio | $\mathbf{5 0 \%}$ | Minimum commission rate | $\mathbf{3 0} \%$ |
| :--- | :--- | :--- | :--- |
| Minimum loss ratio | $\mathbf{3 0 \%}$ | Maximum commission rate | $\mathbf{4 0 \%}$ |
|  |  | Provisional commission rate | $\mathbf{3 5 \%}$ |

Commission in\% at a loss ratio of

| $\mathbf{3 0}$ | over 48\% up to and including 50\% |
| :--- | :--- |
| 31 | over 46\% up to and including 48\% |
| 32 | over 44\% up to and including 46\% |
| 33 | over 42\% up to and including 44\% |
| 34 | over 40\% up to and including 42\% |
| 35 | over 38\% up to and including 40\% |
| 36 | over 36\% up to and including 38\% |
| 37 | over 34\% up to and including 36\% |
| 38 | over 32\% up to and including 34\% |
| 39 | over 30\% up to and including 32\% |
| 40 | under 30\% up to and including 30\% |



## QUESTIONS ??

Munich RE
$\overline{\underline{\underline{\underline{\underline{\underline{E}}}}}}$


## Calculation of Profit Commission - Calendar Year Agenda

Definition and various kinds of profit commission calculations

Loss carry forward clause and handling

Contents of the profit commission statement

Example with loss carry forward

Example without loss carry forward clause

## Definition of Profit Commission - Calendar Year

> Definition:

- The profit commission calculation is a system of calculation designed to determined the profit share that the reinsurer pays to the cedant in addition to its reinsurance commission.
- The profit commission is a kind of "reward" granted by the reinsurer to the cedant for bringing profitable business.


## Calculation of Profit Commission - Calendar Year

$>$ Various kinds of profit commission calculations (PCC):

- Calendar-Year Method.
- Underwriting-Year Method.
- Year of Occurrence Method


## Calculation of Profit Commission - Calendar Year

Income:

- Premiums written
- Unearned premiums previous year (portfolio entry)
- Outstanding losses previous year (portfolio entry)

Outgo:

- Commission
- Losses paid (cash losses)
- Unearned premiums current year (portfolio withdrawal)
- Outstanding losses current year (portfolio withdrawal)
- Management expenses (\% of premium written)


## Calculation of Profit Commission - Calendar

Year

| currency: $€$ |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year 2007 |  |  |  |  |  |  |  |  |
|  | 1 st quarter |  | 2nd quarter |  | 3rd quarter |  | 4th quarter |  |
|  | debit | credit | debit | credit | debit | credit | debit | credit |
| premium |  | 35.000,00 |  | 30.000,00 |  | 20.000,00 |  | 15.000,00 |
| commission $30 \%$ | 10.500,00 |  | 9.000,00 |  | 6.000,00 |  | 4.500,00 |  |
| losses paid | 0,00 |  | 5.000,00 |  | 2.000,00 |  | 3.000,00 |  |
| balance | 24.500,00 |  | 16.000,00 |  | 12.000,00 |  | 7.500,00 |  |
|  unearned premium as at 31.12 .2007 $35.000,00$ <br>  outstanding losses as at 31.12 .2007 $5.000,00$ |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  | 1st quarter |  | 2nd quarter |  | 3rd quarter |  | 4th quarter |  |
|  | debit | credit | debit | credit | debit | credit | debit | credit |
| premium |  | 50.000,00 |  | 45.000,00 |  | 30.000,00 |  | 20.000,00 |
| commission $30 \%$ | 15.000,00 |  | 13.500,00 |  | 9.000,00 |  | 6.000,00 |  |
| losses paid | 1.000,00 |  | 30.000,00 |  | 10.000,00 |  | 90.000,00 |  |
| balance | 34.000,00 |  | 1.500,00 |  | 11.000,00 |  | -76.000,00 |  |
|  |  |  |  |  | unearned | d premium as | at 31.12.2008 | 50.750,00 |
|  |  |  |  |  | outstandin | ding losses as | at 31.12.2008 | 40.000,00 |

treaty conditions:
currency
$€$
management expenses 5\%
profit commission 10 \%


## Calculation of Profit Commission - Calendar Year

management expenses 5\%
profit commission 10 \%

| calculation as at 31st december |  | 2007 | 2008 |
| :---: | :---: | :---: | :---: |
| Income | premium written unearned premium previous year outstanding losses previous year | 100000 | 145000 |
|  |  | 0.00 | 35000 |
|  |  | 0.00 | 5000 |
|  | total income | 100000 | 185000 |
| Outgo | commission losses paid unearned premium current year outstanding losses current year management expenses 5\% <br> total outgo | 30000 | 43500 |
|  |  | 10000 | 131000 |
|  |  | 35000 | 50750 |
|  |  | 5000 | 40000 |
|  |  | 5000 | 7250 |
|  |  | 85000 | 272500 |
| result |  | 15000 | (87500) |
| profit commission $10 \%$ |  | 1500 |  |

## Calculation of Profit Commission - Calendar Year

> Loss carry forward clause:

- Losses are carried forward from one accounting period to the next.
> Losses can be carried forward:
- For a limited period, e.g. for 3 or 5 years
- To extinction


## Calculation of Profit Commission - Calendar Year

> Handling:

- Losses carried forward for a limited period:
- A profit is used initially to eliminate the oldest loss in each case.
- If the profit is larger that the oldest loss, the difference remaining after its elimination is used to eliminate, either wholly or partially, the second oldest loss, and so on.
- In other words, losses - beginning with the oldest - are eliminated through profits made in the following years.


## Calculation of Profit Commission - Calendar

calculation of loss carry forward clause
loss carry forward (lcf): 3 Years

| year | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ | $\mathbf{2 0 0 7}$ | 2008 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| result | $30.000,00$ | $-500,00$ | $-7.000,00$ | $-1.000,00$ | $5.000,00$ | $9.500,00$ |
| Icf 1st year |  |  |  |  |  |  |
| Icf 2nd year |  |  |  |  |  |  |
| Icf 3rd year |  |  |  |  |  |  |
| total result |  |  |  |  |  |  |

## Calculation of Profit Commission - Calendar Year

calculation of loss carry forward clause
loss carry forward (lcf): 3 Years


## Calculation of Profit Commission - Calendar Year

calculation of loss carry forward clause
loss carry forward (lcf): 3 Years

| year | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ | $\mathbf{2 0 0 7}$ | $\mathbf{2 0 0 8}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| result | $30.000,00$ | $-500,00$ | $-7.000,00$ | $-1.000,00$ | $5.000,00$ | $9.500,00$ |
| Icf 1st year |  |  |  |  |  |  |
| Icf 2nd year |  |  |  |  |  |  |
| Icf 3rd year |  |  |  |  |  |  |
| total result |  |  |  |  |  |  |

## Calculation of Profit Commission - Calendar

calculation of loss carry forward clause
loss carry forward (lcf): 3 Years

| year | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ | $\mathbf{2 0 0 7}$ | $\mathbf{2 0 0 8}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| result | $30.000,00$ | $-500,00$ | $-7.000,00$ | $-1.000,00$ | $5.000,00$ | $9.500,00$ |
| Icf 1st year |  |  | $-500,00$ | $-7.000,00$ | $-1.000,00$ | 0,00 |
| Icf 2nd year |  | 0,00 |  | $-500,00$ | $-7.000,00$ | $-1.000,00$ |
| Icf 3rd year |  |  |  |  | $-500,00$ | $-2.500,00$ |
| total result | $30.000,00$ | $-{ }^{-1}$ | $-7.500,00$ | $-8.500,00$ | $-3.500,00$ | $\mathbf{- 2 . 7 0 0 , 0 0}$ |

[^0]
## Profit Commission Calculation Underwriting Year(U/Y)

 Method
## Calculation of Profit Commission - U/Y Year Agenda

01Differences between the calendar year and the $\mathrm{U} / \mathrm{Y}$ method

Loss carry forward clause

## Example

Example with loss carry forward

## Calculation of Profit Commission - U/Y Method

## Differences between the calendar year and the U/Y methods:

> The calculations have to be drawn up for each underwriting year separately.

- In other words:

In the various calendar years, calculations must be drawn up for each underwriting year.
> Unearned Premiums

- They are taken into consideration in the case that the calendar year and the $\mathrm{U} / \mathrm{Y}$ are identical or as long as unearned premium are established.
- In the case of 12- month policy all the premiums of a given $U / Y$ are earned at the end of the second year after the commencement of that underwriting year


## Calculation of Profit Commission - U/Y Method

Differences between the calendar year and the U/Y methods:
$>$ All figures i.e. Unearned Premiums.

- Outstanding losses remain in the given $\mathrm{U} / \mathrm{Y}$
(i.e. not carried over from one calendar year to the next)


## Calculation of Profit Commission, U/Y Method

Munich RE

Profit Commission Calculation - Underwriting-Year (U/Y) Method

| Class of business: Marine $-1^{\text {st }}$ Surplus Currency: € | $\mathrm{U} / \mathrm{Y}=$ underwriting year |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | U/Y | amount | Debit | Credit |
| premium | 2002 | 50.000 |  | 50.000 |
| commission | 2002 | 15.000 | 15.000 |  |
| losses paid | 2002 | 7.000 | 7.000 |  |
| Balance due to you |  |  |  | 28.000 |
| unearned premiums as at 31.12.2002 | 2002 |  |  | 17.500 |
| outstanding losses as at 31.12.2002 | 2002 |  |  | 3.000 |

## Calculation of Profit Commission, U/Y Method



## Calculation of Profit Commission, U/Y Method

Munich RE

| Treaty conditions: |  |
| :--- | ---: |
| Loss carried forward: | 3 years |
| Management Expenses: | $5 \%$ |
| Profit commission: | $10 \%$ |
|  | 2002 |
| Calendar year |  |
| Income | 50.000 |
| premiums written | 0 |
| unearned premiums p.y. | 0 |
| outstanding losses p.y. | 50.000 |
| Total Income | 15.000 |
| Outgo | 7.000 |
| commission | 17.500 |
| losses paid | 3.000 |
| unearned prem. c.y. | 2.500 |
| outstanding losses c.y. | $\mathbf{4 5 . 0 0 0}$ |
| managem. expenses 5 \% | 5.000 |
| Total Outgo | 500 |
| Result of the calend. y. |  |
| Profit commission |  |

## Calculation of Profit Commission, U/Y Method

## Profit Commission Calculation - Underwriting-Year (U/Y) Method



## Calculation of Profit Commission, U/Y Method

## Profit Commission Calculation - Underwriting-Year (U/Y) Method

| Treaty conditions: <br> Loss carried forward: <br> Management Expenses: <br> Profit commission: | $\begin{aligned} & 3 \text { years } \\ & 5 \% \\ & 10 \% \end{aligned}$ |  | Currency: € |  |
| :---: | :---: | :---: | :---: | :---: |
| Calendar year | CY 2002 | CY 2003 | CY 2004 | Total |
| Income premiums written unearned premiums p.y. outstanding losses p.y. | $\begin{array}{r} 50.000 \\ 0 \\ 0 \end{array}$ | $\begin{array}{r} 10.000 \\ 17.500 \\ 3.000 \end{array}$ | 22.000 | 60.000 |
| Total Income | 50.000 | 30.500 | 22.000 | 60.000 |
| Outgo commission | 15.000 | 3.000 |  | 18.000 |
| losses paid | 7.000 | 8.000 | 11.000 | 26.000 |
| unearned prem. c.y. | 17.500 | 0 |  |  |
| outstanding losses c.y. | 3.000 | 22.000 | 3.000 | 3.000 |
| managem. expenses $5 \%$ | 2.500 | 500 |  | 3.000 |
| Total Outgo | 45.000 | 33.500 | 14.000 | 50.000 |
| Result of the calend. y . |  |  |  | 10.000 |
| Profit commission already paid in previous years correction |  |  |  | $\begin{array}{r} 1.000 \\ -200 \\ \hline 800 \end{array}$ |

## Calculation of Profit Commission, U/Y Method

## Profit Commission Calculation - Underwriting-Year (U/Y) Method

| Treaty conditions: Loss carried forward: Management Expenses: Profit commission: | $\begin{aligned} & 3 \text { years } \\ & 5 \% \\ & 10 \% \end{aligned}$ |  | Currency: € |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Calendar year | CY 2002 | CY 2003 | CY 2004 | CY 2005 | Total |
| Income premiums written unearned premiums p.y. outstanding losses p.y. | $\begin{array}{r} 50.000 \\ 0 \\ 0 \end{array}$ | $\begin{array}{r} 10.000 \\ 17.500 \\ 3.000 \end{array}$ | 22.000 | 3.000 | 60.000 |
| Total Income | 50.000 | 30.500 | 22.000 | 3.000 | 60.000 |
| Outgo commission | 15.000 | 3.000 |  |  | 18.000 |
| losses paid | 7.000 | 8.000 | 11.000 | 1.800 | 27.800 |
| unearned prem. c.y. | 17.500 | 0 |  |  |  |
| outstanding losses c.y. | 3.000 | 22.000 | 3.000 | 2.000 | 2.000 |
| managem. expenses $5 \%$ | 2.500 | 500 |  |  | 3.000 |
| Total Outgo | 45.000 | 33.500 | 14.000 | 3.800 | 50.800 |
| Result of the calend. y. |  |  |  |  | 9.200 |
| Profit commission already paid in previous years correction |  |  |  |  | $\begin{array}{r} 920 \\ -1.000 \\ -80 \\ \hline 80 \end{array}$ |

## Calculation of Profit Commission, U/Y Method

## Profit Commission Calculation - Underwriting-Year (U/Y) Method

| Treaty conditions: Loss carried forward: Management Expenses: Profit commission: | $\begin{aligned} & 3 \text { years } \\ & 5 \% \\ & 10 \% \end{aligned}$ |  | Currency: € |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Calendar year | CY 2002 | CY 2003 | CY 2004 | CY 2005 | CY 2006 | Total |
| Income premiums written unearned premiums p.y. outstanding losses p.y. | $\begin{array}{r} 50.000 \\ 0 \\ 0 \end{array}$ | $\begin{array}{r} 10.000 \\ 17.500 \\ 3.000 \end{array}$ | 22.000 | 3.000 | 2.000 | 60.000 |
| Total Income | 50.000 | 30.500 | 22.000 | 3.000 | 2.000 | 60.000 |
| Outgo commission losses paid unearned prem. c.y. outstanding losses c.y. managem. expenses $5 \%$ | $\begin{array}{r} 15.000 \\ 7.000 \\ 17.500 \\ 3.000 \\ 2.500 \end{array}$ | $\begin{array}{r} 3.000 \\ 8.000 \\ 0 \\ 22.000 \\ 500 \end{array}$ | $\begin{array}{r} 11.000 \\ 3.000 \end{array}$ | 1.800 2.000 | 1.500 300 | $\begin{array}{r} 18.000 \\ 29.300 \\ 300 \\ 3.000 \end{array}$ |
| Total Outgo | 45.000 | 33.500 | 14.000 | 3.800 | 1.800 | 50.600 |
| Result of the calend. y . |  |  |  |  |  | 9.400 |
| Profit commission already paid in previous years correction |  |  |  |  |  | $\begin{array}{r} 940 \\ -920 \\ 20 \end{array}$ |

## Calculation of Profit Commission, U/Y Method

Profit Commission Calculation - Underwriting-Year (U/Y) Method

| Treaty conditions: Loss carried forward: Management Expenses: Profit commission: | $\begin{gathered} 3 \text { years } \\ 5 \% \\ 10 \% \end{gathered}$ |  | Currency: € |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Calendar year | CY 2002 | CY 2003 | CY 2004 | CY 2005 | CY 2006 | CY 2007 | Total |
| Income premiums written unearned premiums p.y. outstanding losses p.y. | $\begin{array}{r} 50.000 \\ 0 \\ 0 \end{array}$ | $\begin{array}{r} 10.000 \\ 17.500 \\ 3.000 \end{array}$ | 22.000 | 3.000 | 2.000 | 300 | 60.000 |
| Total Income | 50.000 | 30.500 | 22.000 | 3.000 | 2.000 | 300 | 60.000 |
| Outgo commission losses paid unearned prem. c.y. outstanding losses c.y. managem. expenses $5 \%$ | $\begin{array}{r} 15.000 \\ 7.000 \\ 17.500 \\ 3.000 \\ 2.500 \end{array}$ | $\begin{array}{r} 3.000 \\ 8.000 \\ 0 \\ 22.000 \\ 500 \end{array}$ | 11.000 3.000 | 1.800 2.000 | 1.500 300 | 200 0 | $\begin{array}{r} 18.000 \\ 29.500 \\ 0 \\ 3.000 \end{array}$ |
| Total Outgo | 45.000 | 33.500 | 14.000 | 3.800 | 1.800 | 200 | 50.500 |
| Result of the calend. y. |  |  |  |  |  |  | 9.500 |
| Profit commission already paid in previous years correction |  |  |  |  |  |  | $\begin{array}{r} 950 \\ -940 \\ 10 \end{array}$ |

## Profit Commission Calculation - Underwriting-Year (U/Y) Method

| Treaty conditions: Loss carried forward: Management Expenses: Profit commission: | $\begin{gathered} 3 \text { years } \\ 5 \% \\ 10 \% \end{gathered}$ | Currency: € |
| :---: | :---: | :---: |
|  | U/Y 2002 | U/Y 2003 |
| premium unearned premiums previous year loss reserves previous year | $\begin{array}{r} 60.000 \\ 0 \\ 0 \end{array}$ | $\begin{array}{r} 60.000 \\ 0 \\ 0 \end{array}$ |
| Total Income | 60.000 | 60.000 |
| commissions losses paid unearned premiums current year loss reserves current year management expenses: 5 \% | $\begin{array}{r} 18.000 \\ 15.000 \\ 0 \\ 22.000 \\ 3.000 \end{array}$ | $\begin{array}{r} 18.000 \\ 2.000 \\ 21.000 \\ 20.000 \\ 3.000 \end{array}$ |
| Total Outgo | 58.000 | 64.000 |
| Result of the calender year | 2.000 | -4.000 |
| Profit commission already paid in previous years Amount due to (-)/ due by reinsurer | $\begin{array}{r} 200 \\ -500 \\ -300 \end{array}$ | $\begin{aligned} & 0 \\ & 0 \\ & 0 \end{aligned}$ |

## Calculation of Profit Commission - U/Y Method

## Differences between the calendar year and the U/Y methods:

> Loss carry forward clause:

- A negative result (= loss) in a given year $(u / y)$ is carried forward from one $U / Y$ to the next $\mathrm{U} / \mathrm{Y}$ within the respective calendar year
the calculation has to be drawn up each following calendar year


## Calculation of Profit Commission, U/Y Method

Munich RE

Profit Commission Calculation - Underwriting-Year (U/Y) Method

| Treaty conditions: Loss carried forward: Profit commission: | $\begin{aligned} & 3 \text { years } \\ & 10 \% \end{aligned}$ |  | Currency: € |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | UY 2002 | UY 2003 | UY 2004 | UY 2005 | UY 2006 | UY 2007 | UY 2008 |
| Result of $\mathrm{U} / \mathrm{Y}$ | 9.500 | - 35.750 | -3.700 | 24.400 | - 12.300 | 12.250 | -29.000 |
| Loss carry forward $1^{\text {st }}$ year |  |  |  |  |  |  |  |
| Loss carry forward $2^{\text {nd }}$ year |  |  |  |  |  |  |  |
| Loss carry forward $3{ }^{\text {rd }}$ year |  |  |  |  |  |  |  |
| Total result 2008 |  |  |  |  |  |  |  |

## Calculation of Profit Commission, U/Y Method

## Profit Commission Calculation - Underwriting-Year (U/Y) Method

| Treaty conditions: Loss carried forward: Management Expenses: Profit commission: | $\begin{gathered} 3 \text { years } \\ 5 \% \\ 10 \% \end{gathered}$ |  |  | Currency: € |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 3. | 2. | 1. |  |  |  |  |
|  | UY 2002 | UY 2003 | UY 2004 | UY 2005 | UY 2006 | UY 2007 | UY 2008 |
| Result of $\mathrm{U} / \mathrm{Y}$ | 9.500 | - 35.750 | - 3.700 | 24.400 | - 12.300 | 12.250 | - 29.000 |
| Loss carry forw. 1st year Loss carry forw. 2nd year Loss carry forw. 3rd year |  |  | - 35.750 | $\begin{array}{r} -3.700 \\ -35.750 \end{array}$ |  |  |  |
| Total result 2008 | 9.500 | - 35.750 | - 39.450 | - 15.050 |  |  |  |
|  |  |  | UY 2002 <br> UY 2003 <br> UY 2004 | $\begin{array}{r} 9.500 \\ 24.400 \\ -35.750 \\ \hline-11.350 \\ -3.700 \end{array}$ | profits are the profit re <br> to be carried to be carried | ing carried the olde ward to UY ward to UY |  |

## Calculation of Profit Commission, U/Y Method

## Profit Commission Calculation - Underwriting-Year (U/Y) Method

| Treaty conditions: Loss carried forward: Management Expenses: Profit commission: | $\begin{gathered} 3 \text { years } \\ 5 \% \\ 10 \% \\ \hline \end{gathered}$ |  |  | Currency: € |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{U} / \mathbf{Y}$ | UY 2002 | UY 2003 | UY 2004 | UY 2005 | UY 2006 | UY 2007 | UY 2008 |
| Result of $U$ / Y | 9.500 | - 35.750 | - 3.700 | 24.400 | - 12.300 | 12.250 | -29.000 |
| Loss carry forw. 1st year Loss carry forw. 2nd year Loss carry forw. 3rd year |  |  | - 35.750 | $\begin{array}{r} -3.700 \\ -35.750 \end{array}$ | $\begin{array}{r} 0 \\ -3.700 \\ -11.350 \end{array}$ | - |  |
| Total result 2008 | 9.500 | - 35.750 | - 39.450 | - 15.050 | - 27.350 |  |  |

## Calculation of Profit Commission, U/Y Method

## Profit Commission Calculation - Underwriting-Year (U/Y) Method

| Treaty conditions: Loss carried forward: Management Expenses: Profit commission: |   <br> 3 years <br> $5 \%$ Currency: $€$ <br> $10 \%$  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 3. | 2. | 1. |  |  |  |
| $\mathbf{U} / \mathbf{Y}$ | UY 2002 | UY 2003 | UY 2004 | UY 2005 | UY 2006 | UY 2007 | UY 2008 |
| Result of $U$ / $Y$ | 9.500 | - 35.750 | - 3.700 | 24.400 | - 12.300 | 12.250 | - 29.000 |
| Loss carry forw. 1st year Loss carry forw. 2nd year Loss carry forw. 3rd year |  |  | - 35.750 | $\begin{array}{r} -3.700 \\ -35.750 \end{array}$ | $\begin{array}{r} 0 \\ -3.700 \\ -11.350 \end{array}$ | $\begin{array}{r} -12.300 \\ 0 \\ -3.700 \end{array}$ |  |
| Total result 2008 | 9.500 | - 35.750 | - 39.450 | - 15.050 | - 27.350 | -3.750 |  |

## Calculation of Profit Commission, U/Y Method

## Profit Commission Calculation - Underwriting-Year (U/Y) Method



## Calculation of Profit Commission, U/Y Method

## Profit Commission Calculation - Underwriting-Year (U/Y) Method

| Treaty conditions: Loss carried forward: Management Expenses: Profit commission: | $\begin{aligned} & 3 \text { years } \\ & 5 \% \\ & 10 \% \end{aligned}$ |  |  | Currency: € |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{U} / \mathbf{Y}$ | UY 2002 | UY 2003 | UY 2004 | UY 2005 | UY 2006 | UY 2007 | UY 2008 |
| Result of $\mathrm{U} / \mathrm{Y}$ | 9.500 | - 35.750 | - 3.700 | 24.400 | - 12.300 | 12.250 | -29.000 |
| Loss carry forw. 1st year Loss carry forw. 2nd year Loss carry forw. 3rd year |  |  | - 35.750 | $\begin{array}{r} -3.700 \\ -35.750 \end{array}$ | $\begin{array}{r} 0 \\ -3.700 \\ -11.350 \end{array}$ | -12.300 0 -3.700 | $\begin{array}{r} 0 \\ -3.750 \\ 0 \end{array}$ |
| Total result 2008 | 9.500 | -35.750 | - 39.450 | - 15.050 | -27.350 | - 3.750 | - 32.750 |

## QUESTIONS ??

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$\overline{\overline{\overline{\underline{E}}}}$




## Loss Participation

If the effective losses exceed a certain percentage of the earned premiums (loss ratio), the primary insurer pays a contractually agreed share of the losses exceeding this percentage up to a defined maximum.

In the statement of account, this item is posted separately as a credit for the reinsurer.


## Fire Quota Share

## Treaty information:

„In case the incurred losses of one year exceed $90 \%$ of the earned premiums of the same year, the ceding company will pay $50 \%$ of the difference (in addition to its self retention)"


## Loss participation - Example

Fire Quota Share

|  |  | EUR |
| :---: | :---: | :---: |
| + Written Premium 2012 |  | 46,000 |
| + Unearned Premium entry as at 01.01.2012 |  | 9,400 |
| - Unearned premium as at per 31.12.2012 |  | -9,600 |
|  | Earned Premium: | ........... |
| - Claims paid during 2012 |  | -38,900 |
| + Loss reserve as at 01.01.2012 |  | 16,800 |
| - Loss reserve as at 31.12.2012 |  | -27,700 |
|  | Incurred Losses: | ........ |

Question:
How much is the original insurer's loss participation ( in EUR)? In which reinsurance account should the reinsurer be credited with that amount?

## Fire Quota Share

|  | EUR |
| :--- | :--- |
| Earned premiums: |  |
| Incurred losses: |  |

How much is the cedent's Loss participation?
Incurred Losses
Less 90\% of the earned premiums
Exceeding loss
50 \% Loss participation:

When will the Reinsurer be credited with this loss participation?

## Loss participation - Example

Fire Quota Share

|  |  | EUR |
| :---: | :---: | :---: |
| + Written Premium 2012 |  | 46,000 |
| + Unearned Premium entry as at 01.01.2012 |  | 9,400 |
| - Unearned premium as at per 31.12.2012 |  | -9,600 |
|  | Earned Premium: | 45800 |
| - Claims paid during 2012 |  | -38,900 |
| + Loss reserve as at 01.01.2012 |  | 16,800 |
| - Loss reserve as at 31.12.2012 |  | -27,700 |
|  | Incurred Losses: | 49800 |

## Question:

How much is the original insurer's loss participation ( in EUR)? In which reinsurance account should the reinsurer be credited with that amount?

## Loss participation - Example

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|  | EUR |
| :--- | ---: |
| Earned Premium | 45,800 |
| Incurred Losses | -49800 |
| Loss Ratio | $108.73 \%$ |
|  |  |
| Less 90\% of the earned premiums | 50\% Loss Participation |
| Exceeding Loss |  |
|  |  |

The amount of EUR 4287 (EUR 45800 *9.36\%) due to reinsurer in 4th Qtr 2012 account

## QUESTIONS ??

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$\overline{\overline{\overline{\underline{E}}}}$


## Thank you for your attention!

March 2023
Naren Lalloo

## NOT IF, BUT HOW




[^0]:    * 800: Partial reduction of the loss to be carried forward amounting -2.500 („oldest" loss, from 2005), no further carrying forward of the difference of -1.700!
    * I.e.: Loss to be carried forward to 2009: - $\mathbf{1 . 0 0 0}$ from 2006 (instead of -2.700,00) because of the limitation of 3 years.

