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**2019**  
Cape Town  
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# Reinsurance workshop

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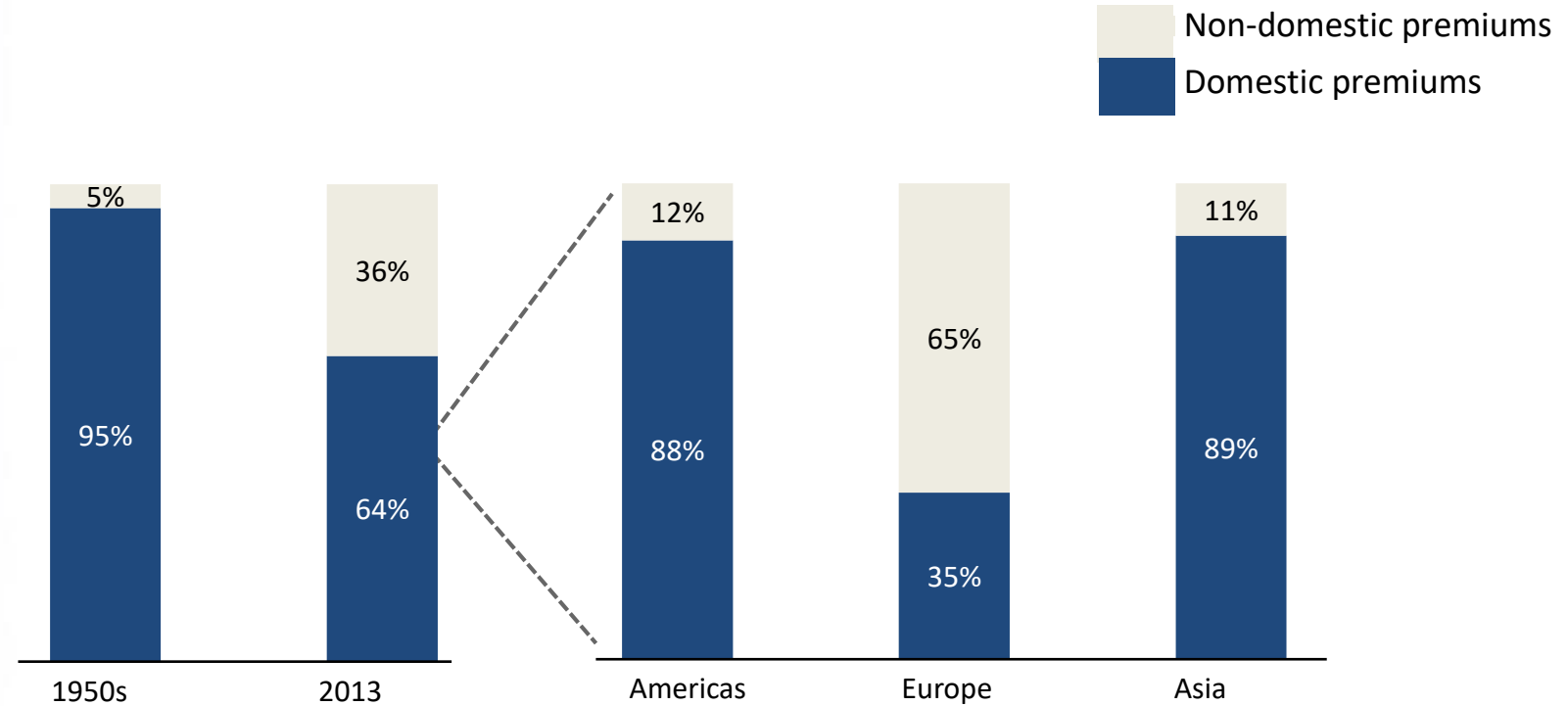




# P&C Reinsurance market

# Insurance has become more global, particularly driven by Europeans

- P&C premium mix, top 40 global carriers by premium written



Source: McKinsey

# Three markets, three different strategies among insurers

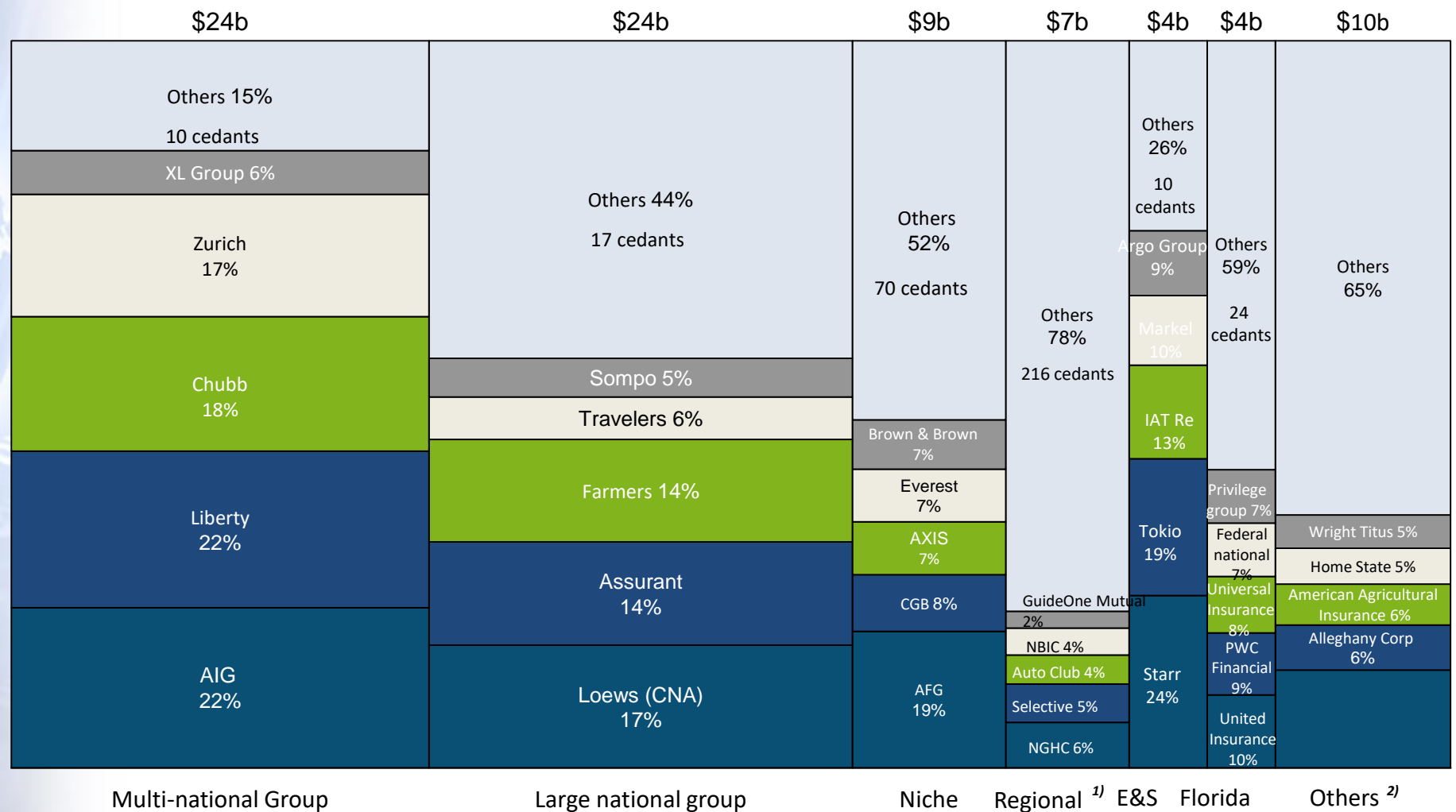
	USA	Europe	Asia
<b>2016 P&amp;C Insurance market size</b> (overall: \$2.1 trillion)	41% of global total	29% of global total	23% of global total
<b>Growth rate</b> (2012-2016)	10%	-7% (Western) -24% (Central & Eastern) <sup>2)</sup>	+31% (Mature) +77% (Emerging)
<b>% premium written outside home market</b>	12%	65%	11%
<b>Typical strategy of large insurers</b>	Grow at home, consolidate in-market	Expand globally: home markets mature	Build high market share in growing home markets



Over 600 notable buyers of reinsurance in the US – many of them being large, strong clients:  
 Top 10 clients cede 42% of total market premium

**Who cedes reinsurance by segment - 2016**

Total: \$81b



Multi-national Group

Large national group

Niche

Regional <sup>1)</sup>

E&S

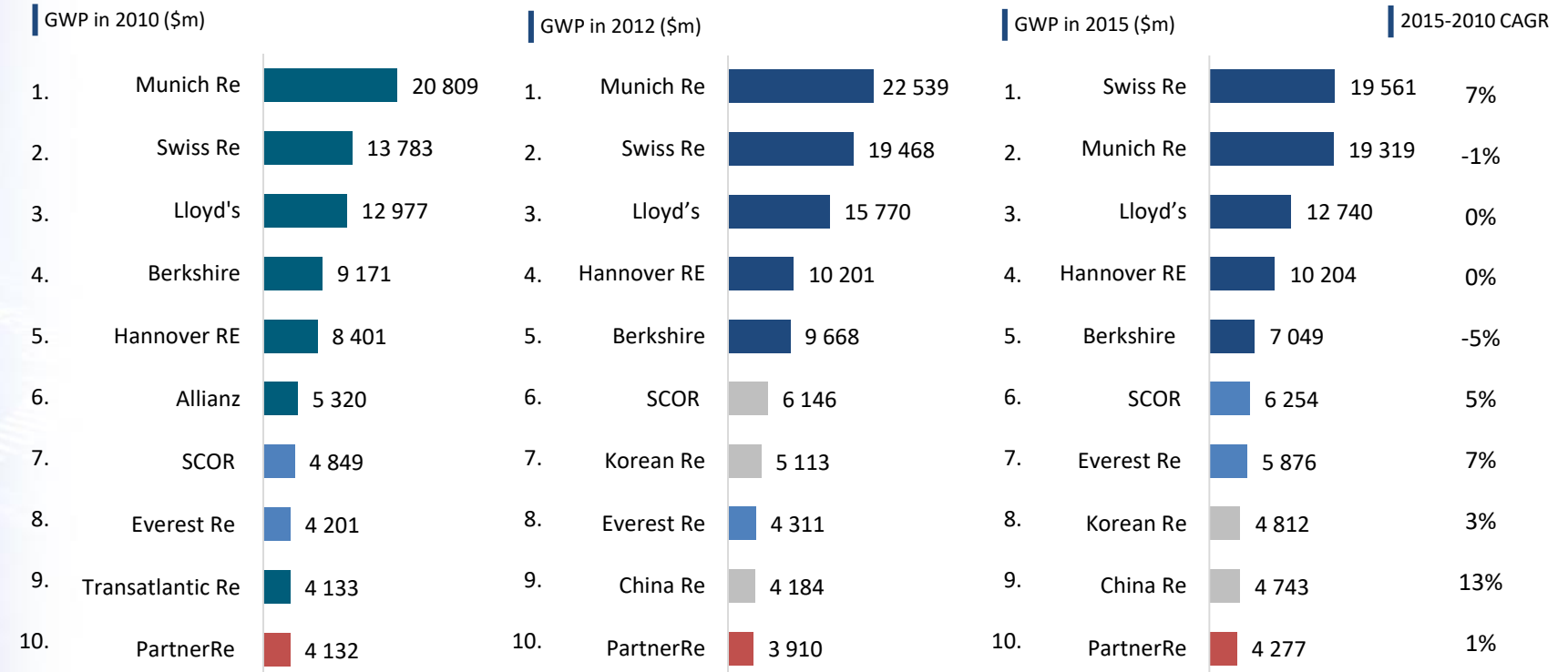
Florida

Others <sup>2)</sup>



# P&C Reinsurance split by company

## Non-Life Reinsurance Premium

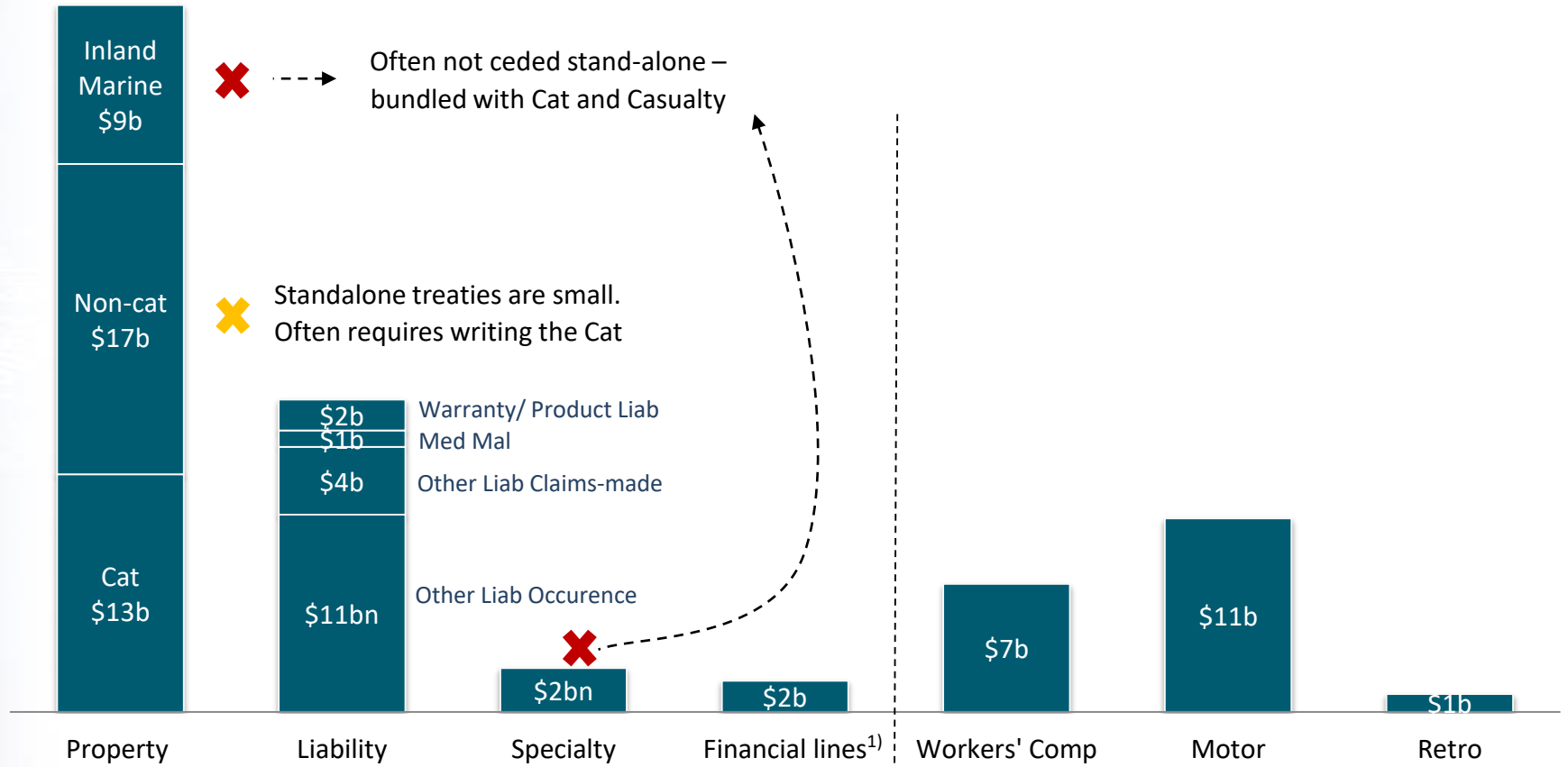


Source: A.M. Best data

Note: GWP figures of EUR reinsurers impacted by USDEUR exchange rate fluctuations; Korean Re and China re mostly focused on their local market; Growth in Everest supported by increased Cat Exposure

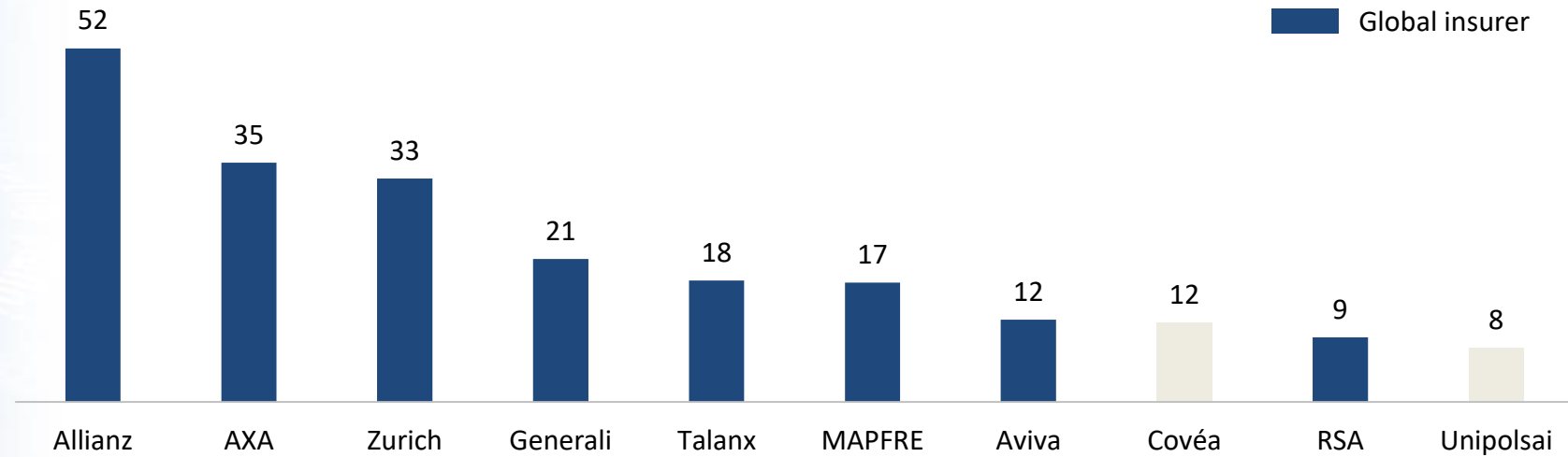
# US insurers buy mostly Property Cat and « Heavy » Casualty

The \$81bn US reinsurance market split by line



# Europe's top insurers, having strong shares in mature markets, have been driven to globalize

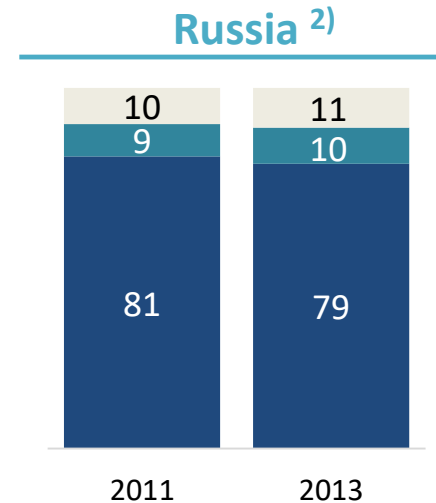
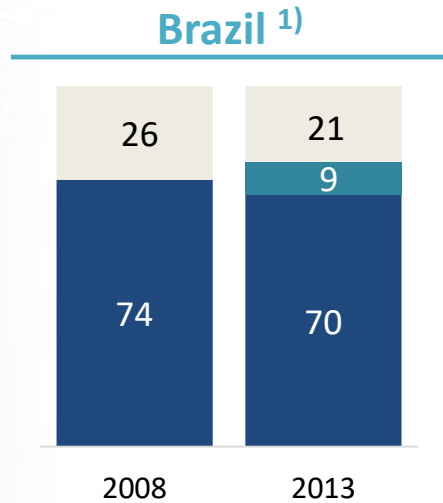
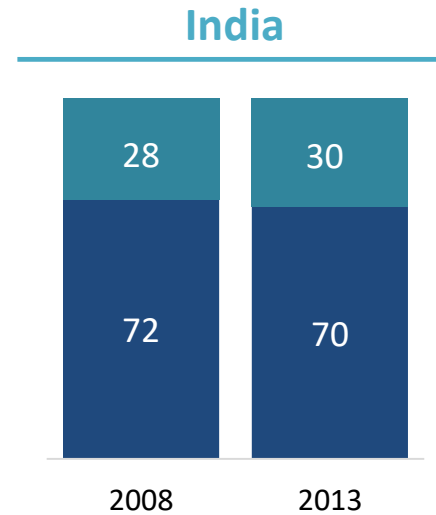
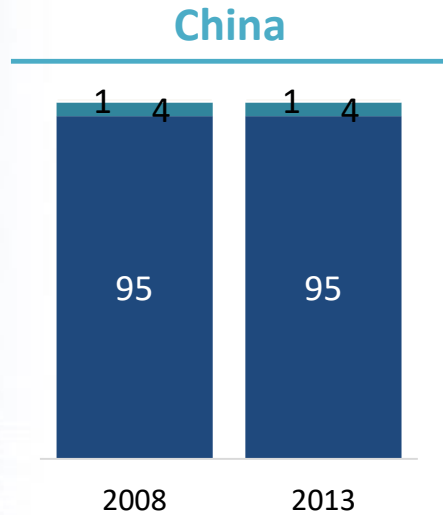
- 2015 main European insurers P&C GWP (€bn)
  - Companies shown: ~50% of the European market



Source: SNL, Bain & Company. Market shares assessed using Swiss Re sigma's 2015 insurance premium estimates for Europe. SCOR, Swiss Re, Munich Re, Hanover Re, Lloyd's excluded from analysis. ROE average include all Global insurers worldwide.

# National champions dominate high-growth emerging markets

- Market share of foreign vs. domestic players (Total business) In %



Foreign  
 Joint-Venture  
 Local

Source: McKinsey

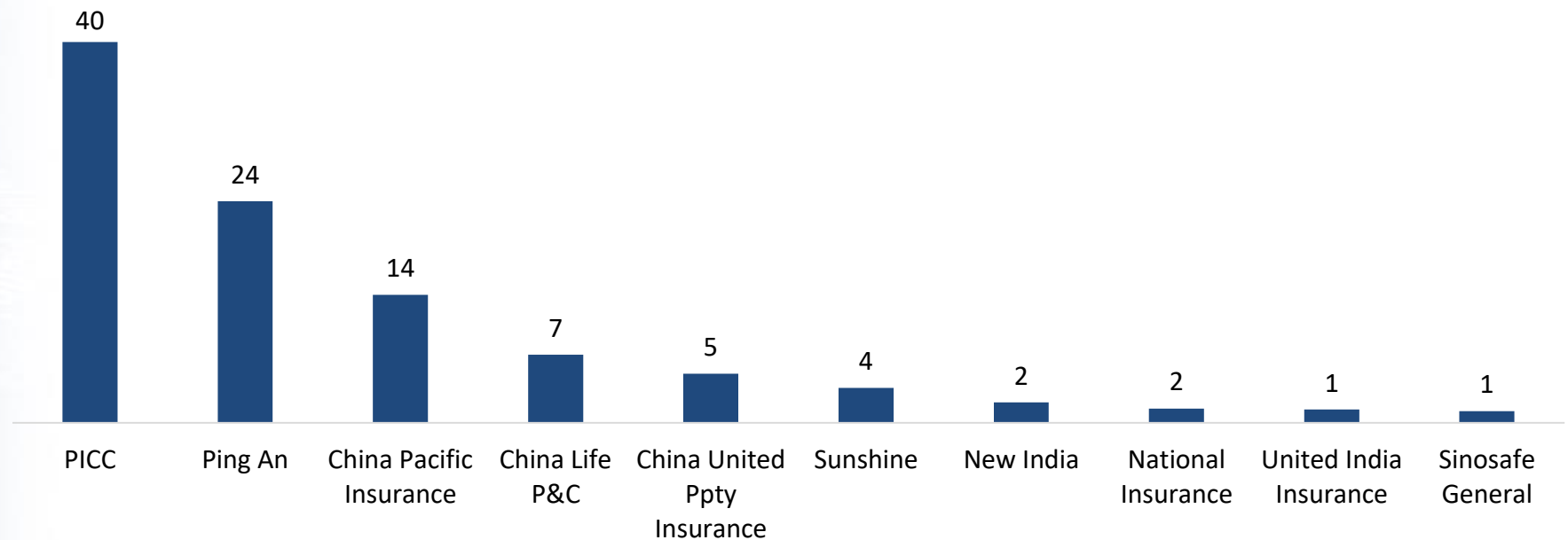
1) Shift from Foreign to Joint-Venture due to move from Mapfre to create a JV with Banco do Brasil

2) Data for earlier historical years not available

# A handful of large insurers are dominating China, which by far Asia's largest insurance market

- 2015 main emerging Asia insurers – P&C GWP (€bn)

➤ Companies shown = 60% of the Emerging Asia market and 66% of China & India



**Source:** SNL. Market shares assessed using Swiss Re sigma's insurance premium estimates for Emerging Asia and China & India for 2015. China Re & GIC Re excluded

# In developed Asian markets (as with Europe), large carriers are seeking growth abroad

## EXAMPLE



TOKIO MARINE

Home market  
growth rate: 5%  
(2011-15, JPY)

### Acquired (since 2006)

Asia General  
Holdings Ltd.

Life & P&C - Singapore &  
Malaysia



Lloyd's insurance group



US P&C insurer



US Life & P&C insurer



US specialty insurer

### Launched (since 2005)

Tokio Marine  
Global Ltd

UK reinsurance company

Hong Leong TM  
Takaful

Takaful insurer

Tokio Marine  
China

China subsidiary

**Note:** Tokio Marine pure life acquisitions and branch launches excluded.

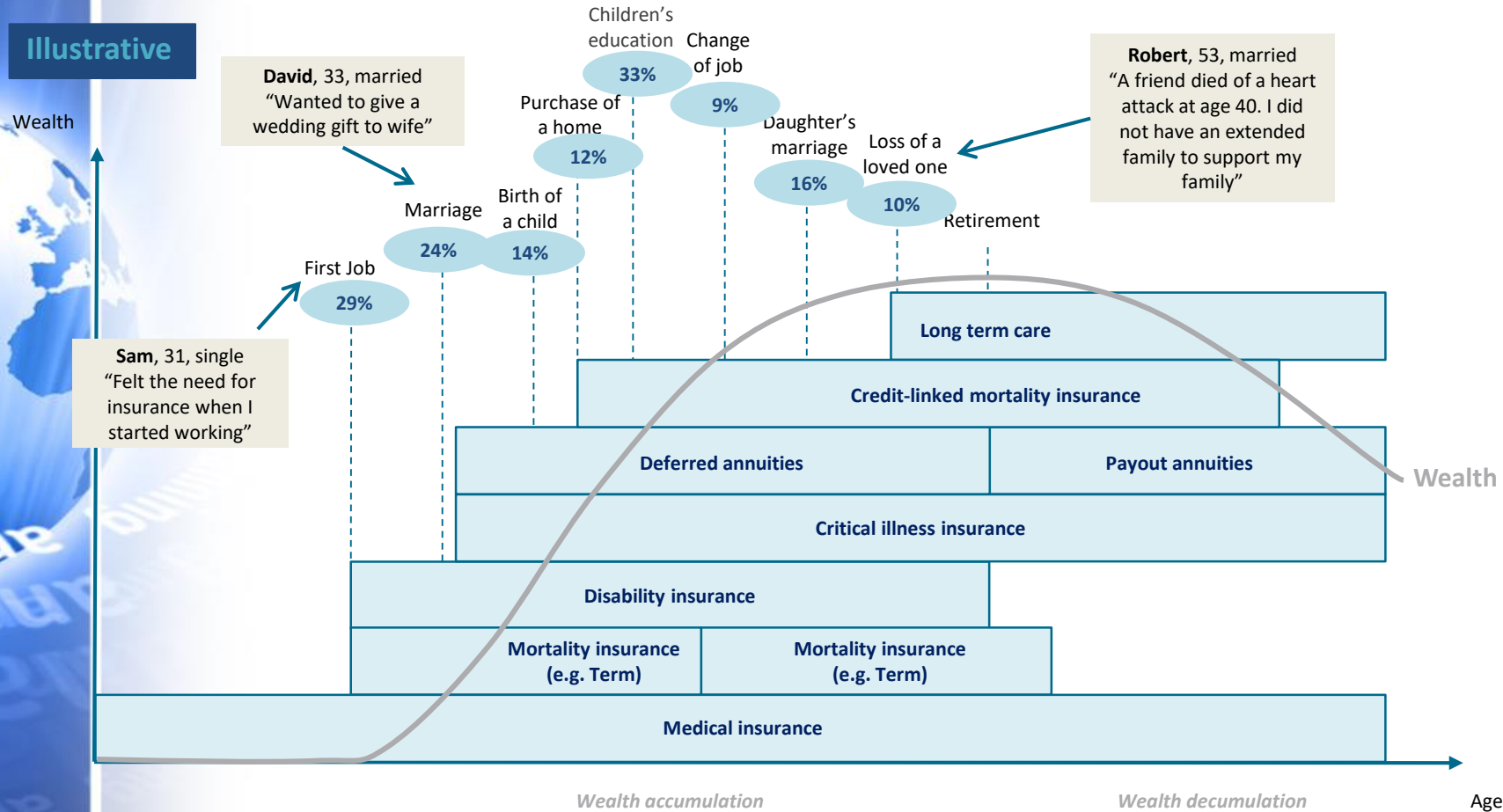
**Source:** Swiss re Sigma, company reports



# Life Reinsurance market

# Life insurance needs are typically triggered by key “life events”

**Illustrative**



Source: SCOR Global Life analyses

1) BCG Insurance Survey 2013—LI = Life insurance

% of customers<sup>1)</sup>

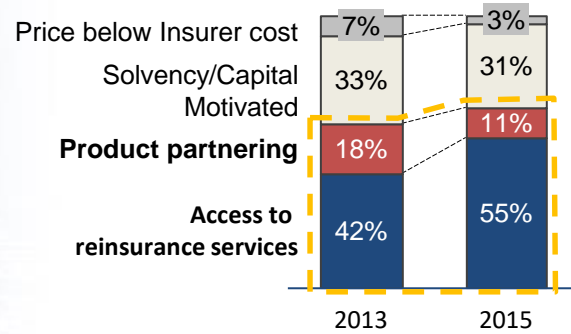
# Drivers of reinsurance purchase remain focused on access to reinsurer support & services, but vary widely among geographies

“Principal Motivations for reinsurance usage”

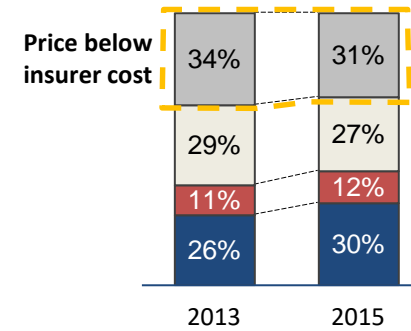
Protection – Excluding Medical<sup>1)</sup>



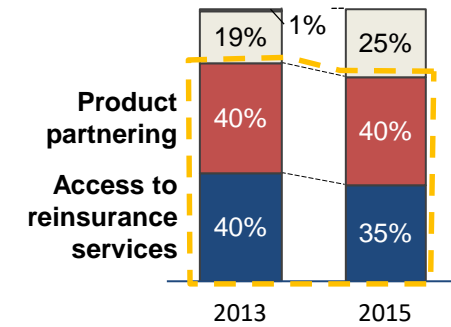
## US



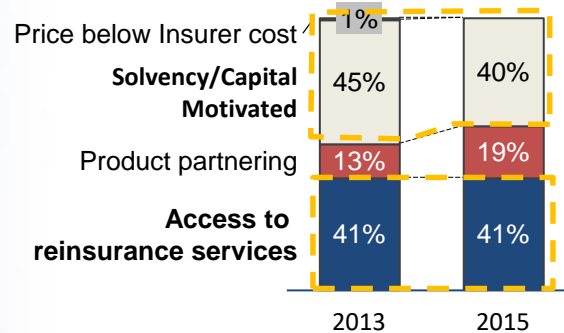
## UK & Ireland



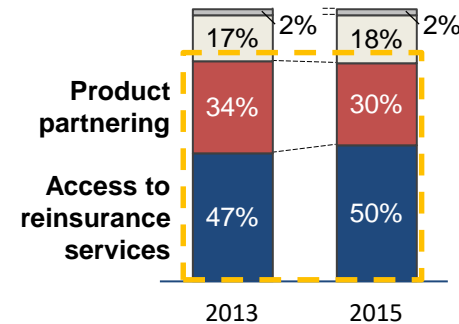
## China



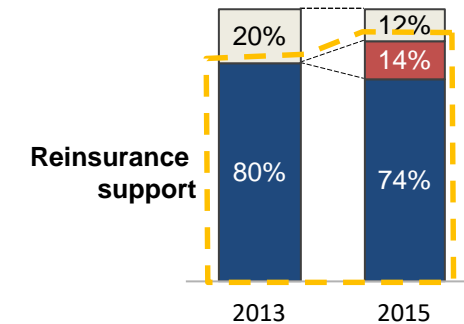
## Australia & NZ



## France



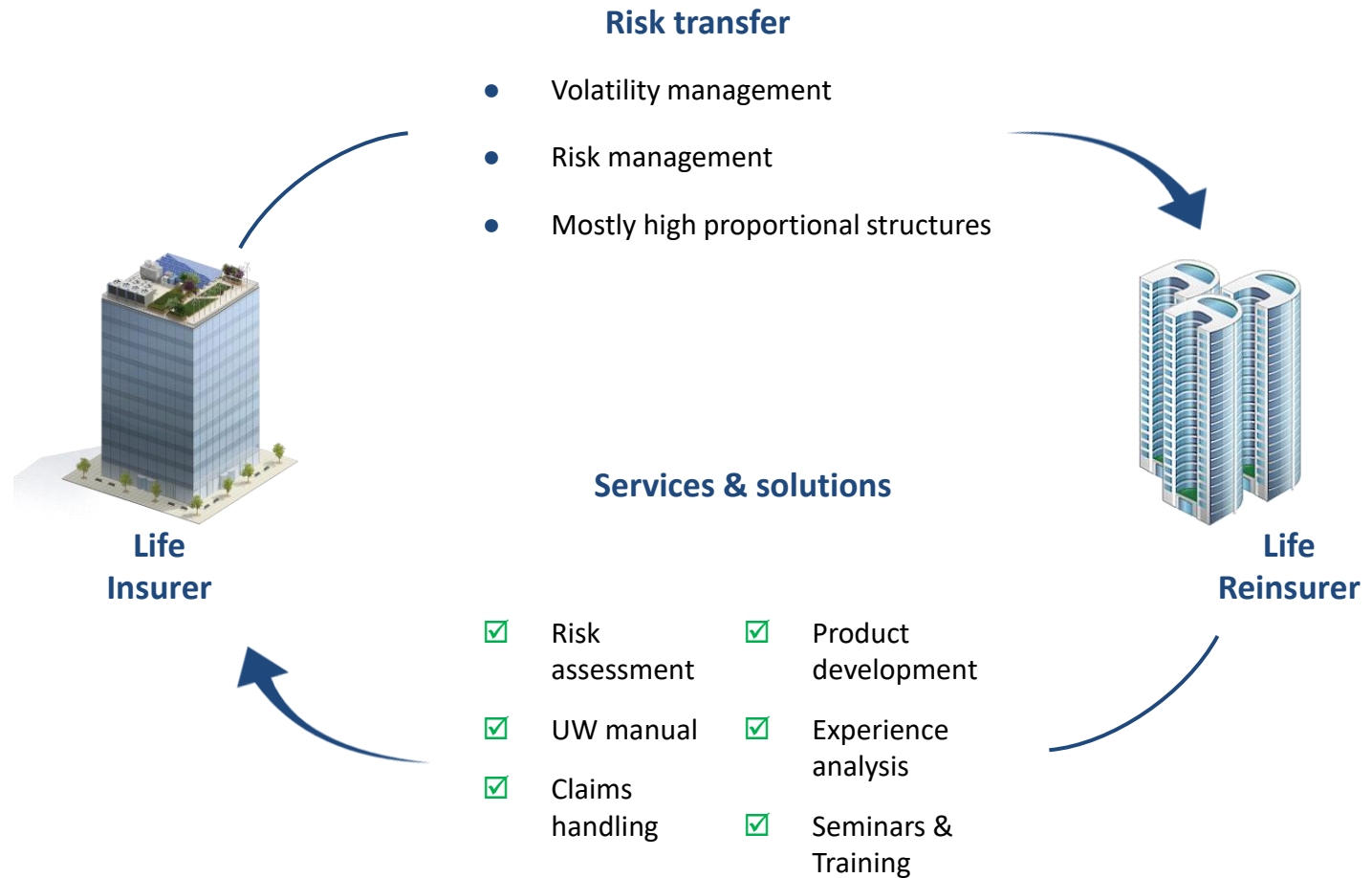
## Middle East



Source: NMG; individual market

1) Mortality, Long-term care, Disability and Personal accident; Medical only included for Middle East

# Risk Solutions: very often, life reinsurance is a way to trade risk transfer against various value-adding services



Source: SCOR Global Life



# Reinsurance products

# Proportional Reinsurance – Quota Share

## Characteristics

- The reinsurer assumes an agreed percentage of all insurance policies by the reinsured as defined by the treaty. This percentage determines how the liability, premium, costs and losses are shared between reinsured and reinsurer.

## Benefits

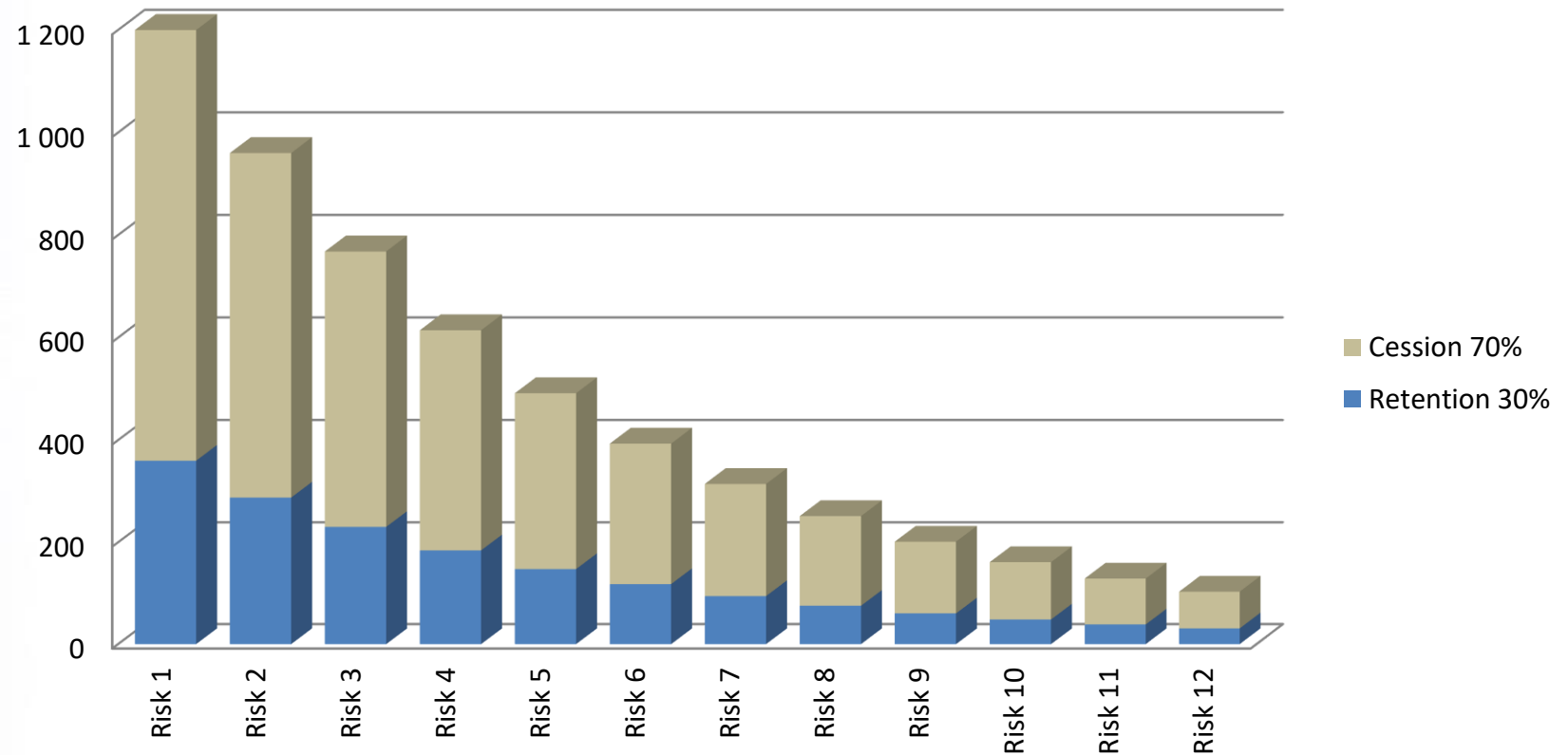
- Comparably simple and cost efficient and provides attractive capital relief to the reinsured
- Protection against high frequency

## Limitations

- Protection against severity (e.g. very large loss) is limited

# Proportional Reinsurance – Quota Share

## Quota Share - Risk Sharing



# Proportional Reinsurance – Quota Share

## Example

- A ceding company writes a QS contract for a total premium of EUR 1,000,000 with a 70% cession rate to the reinsurer.
- During this duration, there is a loss and the ceding company has to indemnify the beneficiary with EUR 600,000.
- The ceding company manages to recover EUR 200,000 and pays EUR 20,000 for the claims handling. The ultimate loss results in EUR 420,000 which is shared between the ceding company with EUR 126,000 and the reinsurer with 294,000.

# Proportional Reinsurance – Quota Share

## Example of Cession and Loss Allocation

	Gross	Cedent	Reinsurer
Retention and Cession	100%	30%	70%
Premium	1'000'000	300'000	700'000
Ceding Commission (Rate of 32%)			224'000
Initial Loss	600'000	180'000	420'000
Claims Handling Costs	20'000	6'000	14'000
Recovery	200'000	60'000	140'000
<b>Ultimate Loss</b> (excl. Premium and Commission)	420'000	126'000	294'000

# Agenda

1	Proportional Reinsurance
2	Non-Proportional Reinsurance
4	Structural Features <ul style="list-style-type: none"><li>- Reinstatement</li><li>- Annual Aggregate Deductible</li><li>- Interlocking Clause</li></ul>

# Non-Proportional Reinsurance – Per Risk Excess of Loss

## Characteristics

- ❑ The Per Risk Excess of Loss is a common protection to supplement the Quota Share treaty.
- ❑ The reinsurer indemnifies the reinsured by paying the portion of a loss which exceeds a threshold. This threshold is defined as the reinsured's deductible. The reinsurance premium is usually expressed as a percentage of the GNPI<sup>1)</sup>.

## Benefits

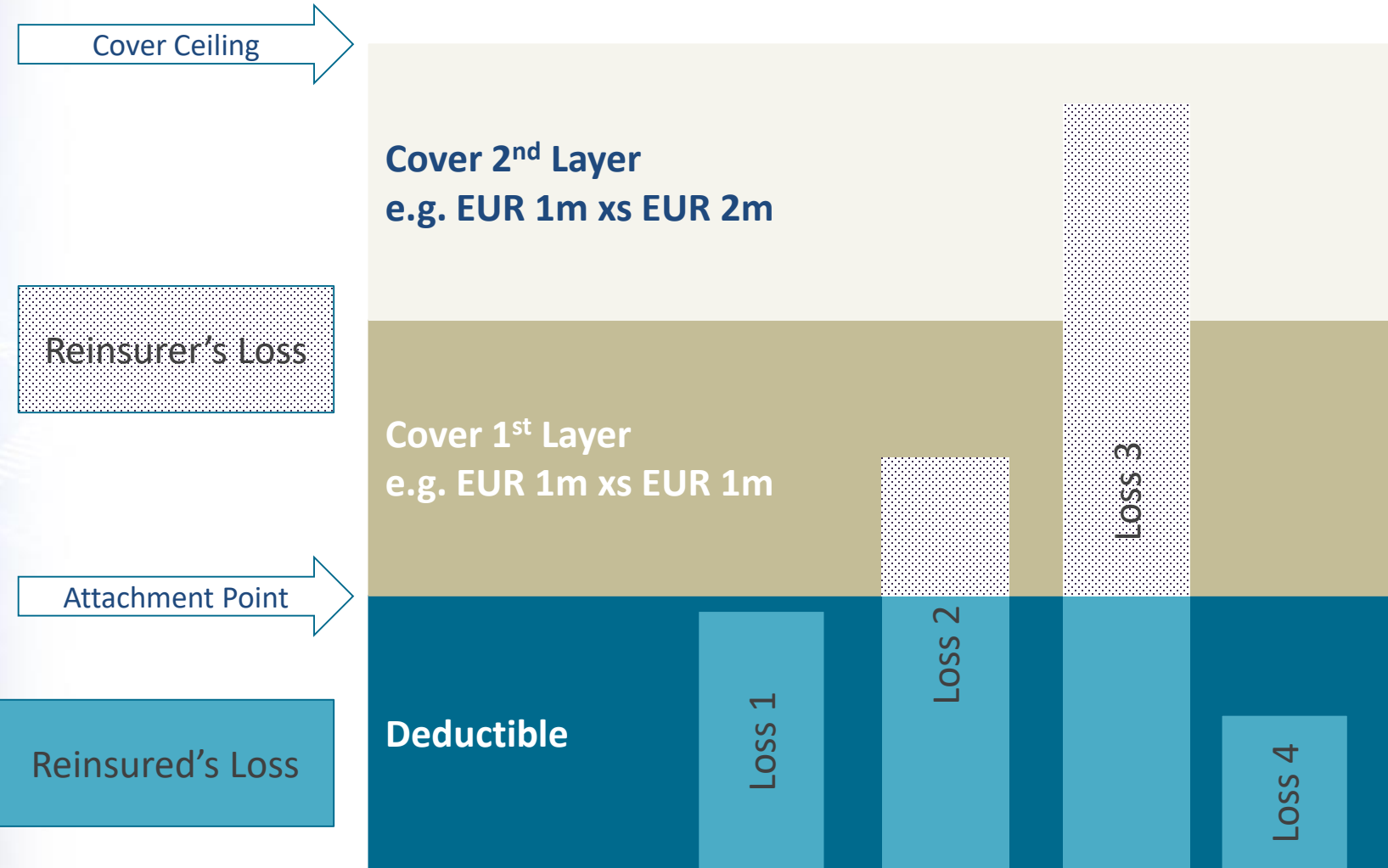
- ❑ Protection against severity
- ❑ The reinsured receives protection while retaining a comparably high portion of premium.

## Limitations

- ❑ Depending on the structure, the reinsured retains the risk of misestimating the PML.

1) Gross Net Premium Income, i.e. premium retained by the ceding company after the proportional reinsurance cession; Subject Premium is used as a synonym.

# Non-Proportional Reinsurance – Per Risk Excess of Loss



# Non-Proportional Reinsurance – Per Risk Excess of Loss

## Example 1 (linked to Proportional Example)

- As illustrated in the proportional example, the ultimate loss results in EUR 420,000 which is shared proportionally between the ceding company with EUR 126,000 and the reinsurer with 294,000.
- The ceding company's portion of EUR 126,000 is within the deductible of the XoL programme and hence is retained by the ceding company:

	Gross	Cedent	XoL-Reinsurer
Deductible		1'000'000	
Ultimate Loss	420'000	126'000	
Loss Allocation		126'000	0

# Non-Proportional Reinsurance – Per Risk Excess of Loss

## Example 2

- ❑ The ceding company is confronted with a gross loss of EUR 6,000,000. After ceding 70% proportionally, its ultimate net loss (i.e. after QS cession) amounts to EUR 1,800,000.
- ❑ The ceding company's retains the deductible of the XoL programme and receives indemnification for the loss exceeding EUR 1,000,000 from the XoL-Reinsurer :

	Gross	Cedent	XoL-Reinsurer
Deductible		1'000'000	
Ultimate Loss	6'000'000	1'800'000	
Loss Allocation		1'000'000	800'000

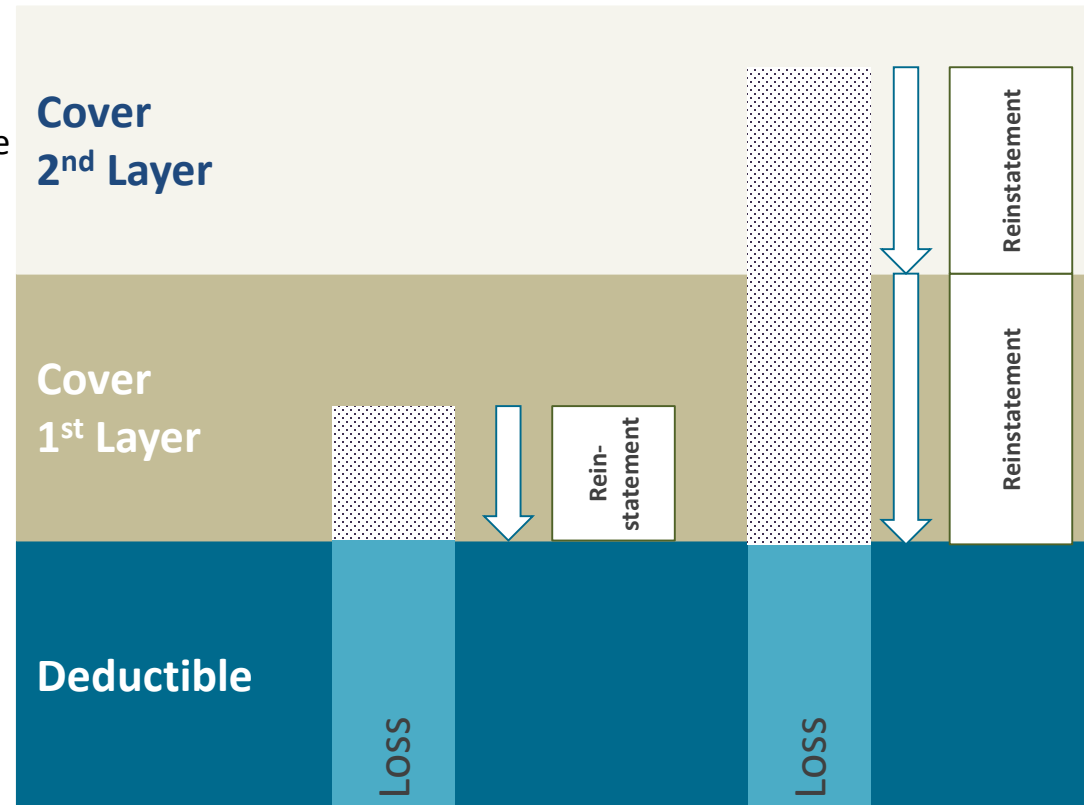
# Agenda

1	Proportional Reinsurance
2	Non-Proportional Reinsurance
4	<b>Structural Features</b> <ul style="list-style-type: none"><li>- Reinstatement</li><li>- Annual Aggregate Deductible</li><li>- Interlocking Clause</li></ul>

# Structural Features

## Reinstatement

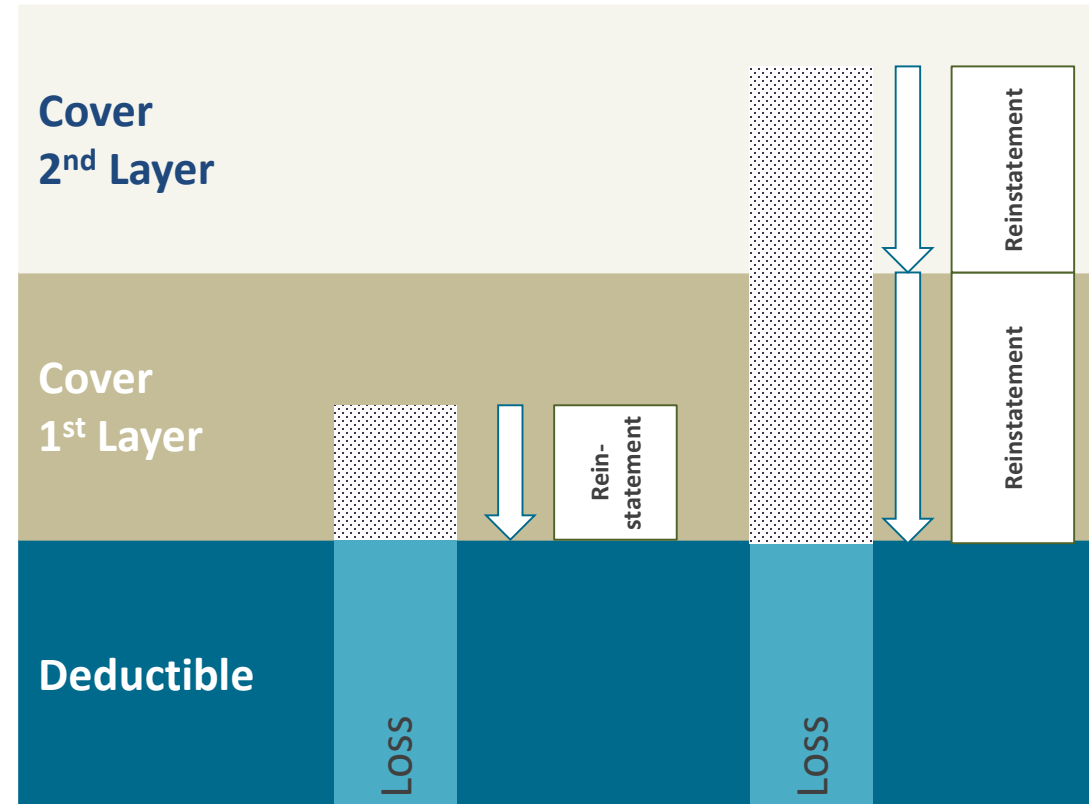
- Contractual agreement whereby provision is made to reinstate limit of reinsurance cover to its original level when cover is eroded by a loss.
- Reinstated amount is typically based on Paid Losses (i.e. not Incurred Losses).
- The number of reinstatements is defined (e.g. two).
- An additional premium is typically payable, pro-rata for the reinstatement cover.



# Structural Features

## Reinstatement – Example 1

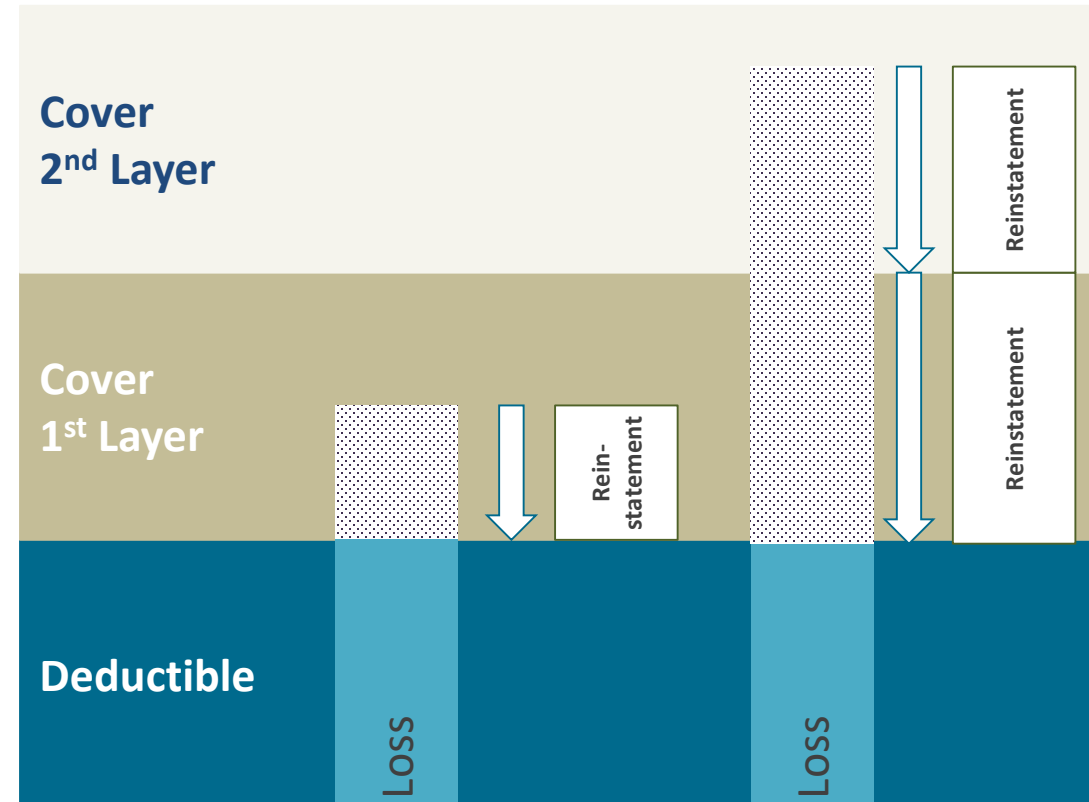
- ❑ Gross Loss: EUR 1,500,000
- ❑ Deductible: EUR 1,000,000
- ❑ Cover 1<sup>st</sup> Layer: EUR 1,000,000
- ❑ Loss in 1<sup>st</sup> Layer: EUR 500,000
- ❑ Pro-Rata Reinstatement: 50% of Cover
- ❑ Basic Premium: EUR 100,000
- ❑ Additional Premium (at 100%): 50% of EUR 100,000 = EUR 50,000



# Structural Features

## Reinstatement – Example 2

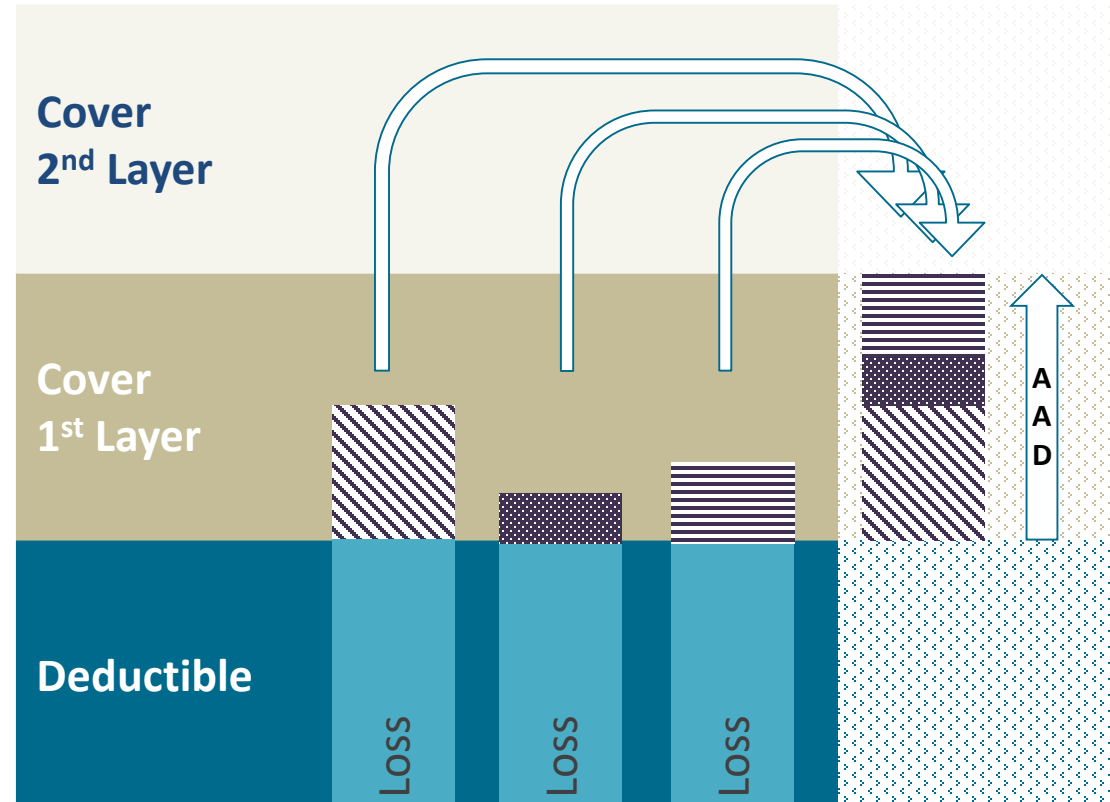
- ❑ Gross Loss: EUR 2,900,000
- ❑ Deductible: EUR 1,000,000
- ❑ Cover 1<sup>st</sup> Layer: EUR 1,000,000  
Cover 2<sup>nd</sup> Layer: EUR 1,000,000
- ❑ Loss in 1<sup>st</sup> Layer: EUR 1,000,000  
Loss in 2<sup>nd</sup> Layer: EUR 900,000
- ❑ Pro-Rata Reinstatement:  
100% of Cover 1<sup>st</sup> Layer  
90% of Cover 2<sup>nd</sup> Layer
- ❑ Basic Premium 1<sup>st</sup> Layer: EUR 100,000  
Basic Premium 2<sup>nd</sup> Layer: EUR 50,000
- ❑ Additional Premium (at 100%):  
1<sup>st</sup> Layer 100% of EUR 100,000 = EUR 100,000  
2<sup>nd</sup> Layer 90% of EUR 50,000 = EUR 45,000



# Structural Features

## Annual Aggregate Deductible (AAD)

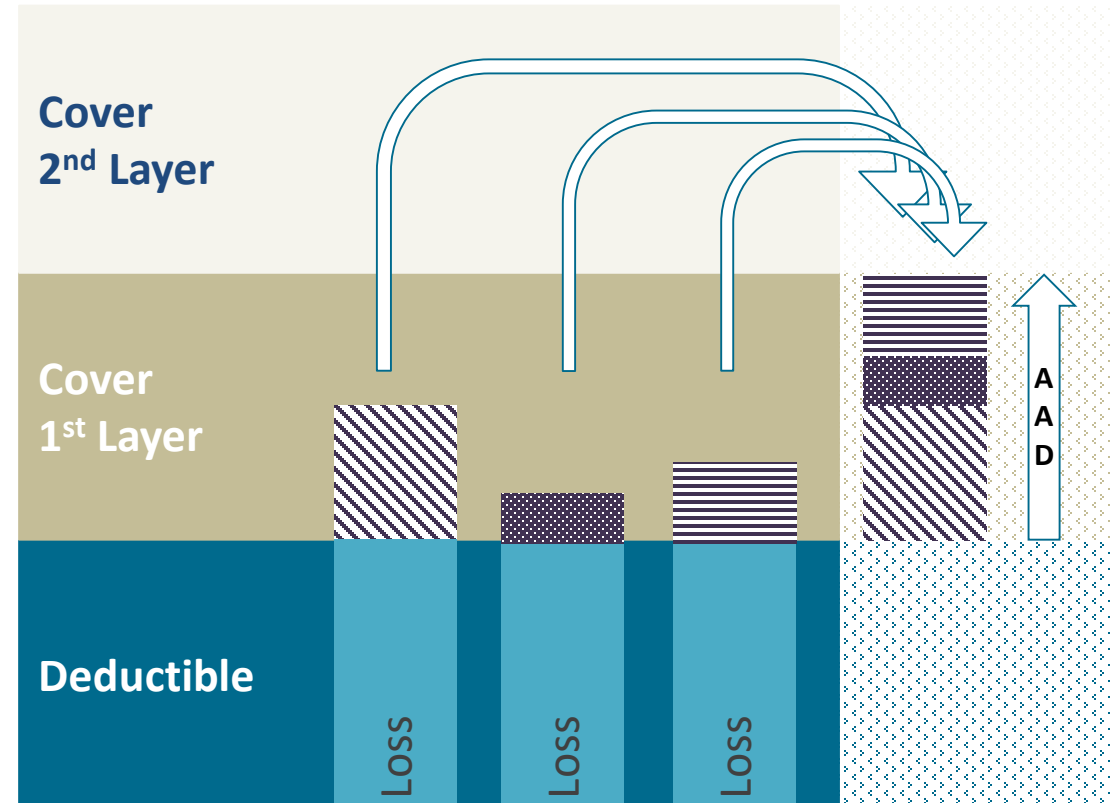
- Contractual agreement whereby the Ceding Company retains a defined amount of aggregate losses impacting the defined reinsurance cover **before** the reinsurer becomes liable.
- This type of retention on losses otherwise attributable to the cover is usually expressed as a fixed amount or rarely as a percentage of the Ceding Company's Subject Premium.



# Structural Features

## Annual Aggregate Deductible (AAD) – Example

- ❑ AAD: EUR 1,000,000
- ❑ Loss 1: EUR 1,500,000  
Deductible: EUR 1,000,000  
AAD 1<sup>st</sup> Layer: EUR 500,000  
Remaining AAD: EUR 500,000
- ❑ Loss 2: EUR 1,200,000  
Deductible: EUR 1,000,000  
AAD 1<sup>st</sup> Layer: EUR 200,000  
Remaining AAD: EUR 300,000
- ❑ Loss 3: EUR 1,300,000  
Deductible: EUR 1,000,000  
AAD 1<sup>st</sup> Layer: EUR 300,000  
Remaining AAD: EUR 0
- ❑ The next loss in the 1<sup>st</sup> Layer is paid by the reinsurer.





Thank you



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