

# Your friendly neighborhood reinsurers: A costing view

Marine Forum 2026 – Swiss Re – Mario Ciancarelli & Simon Jenni



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# Marine: Hazards and Accumulation

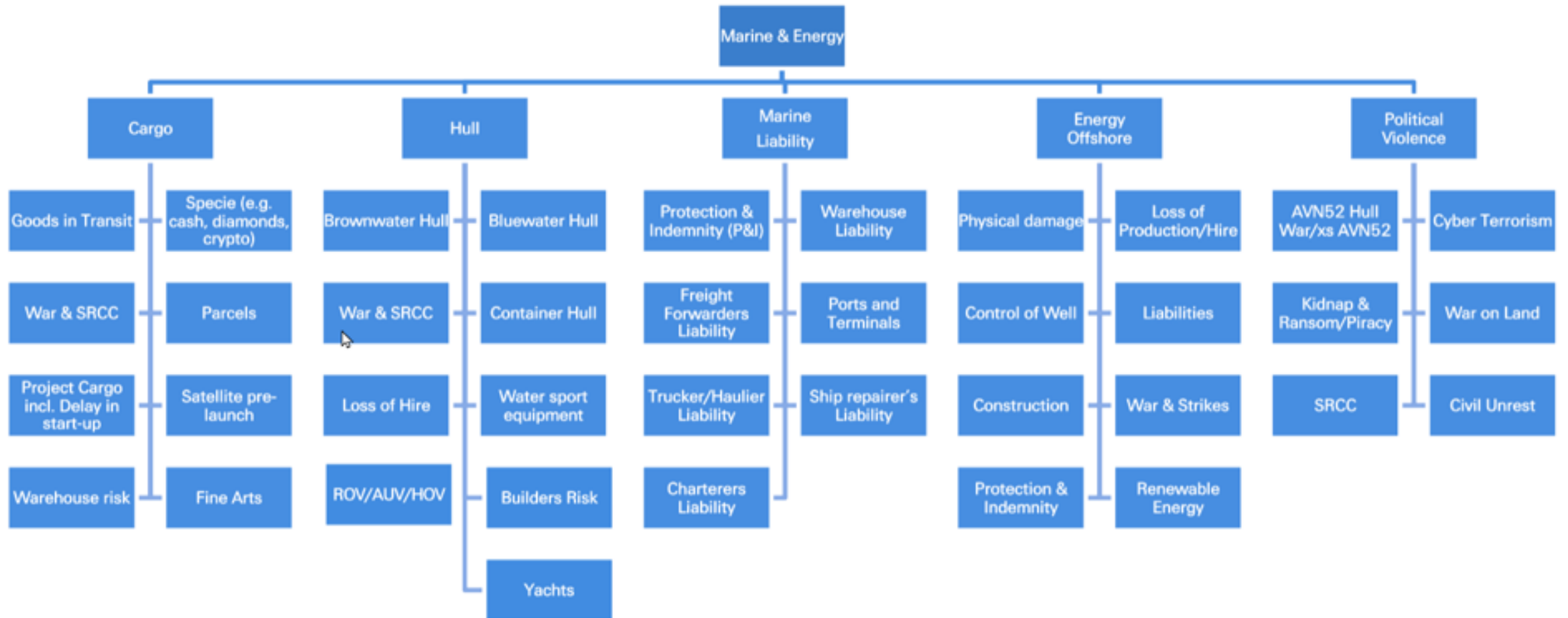
# A Map



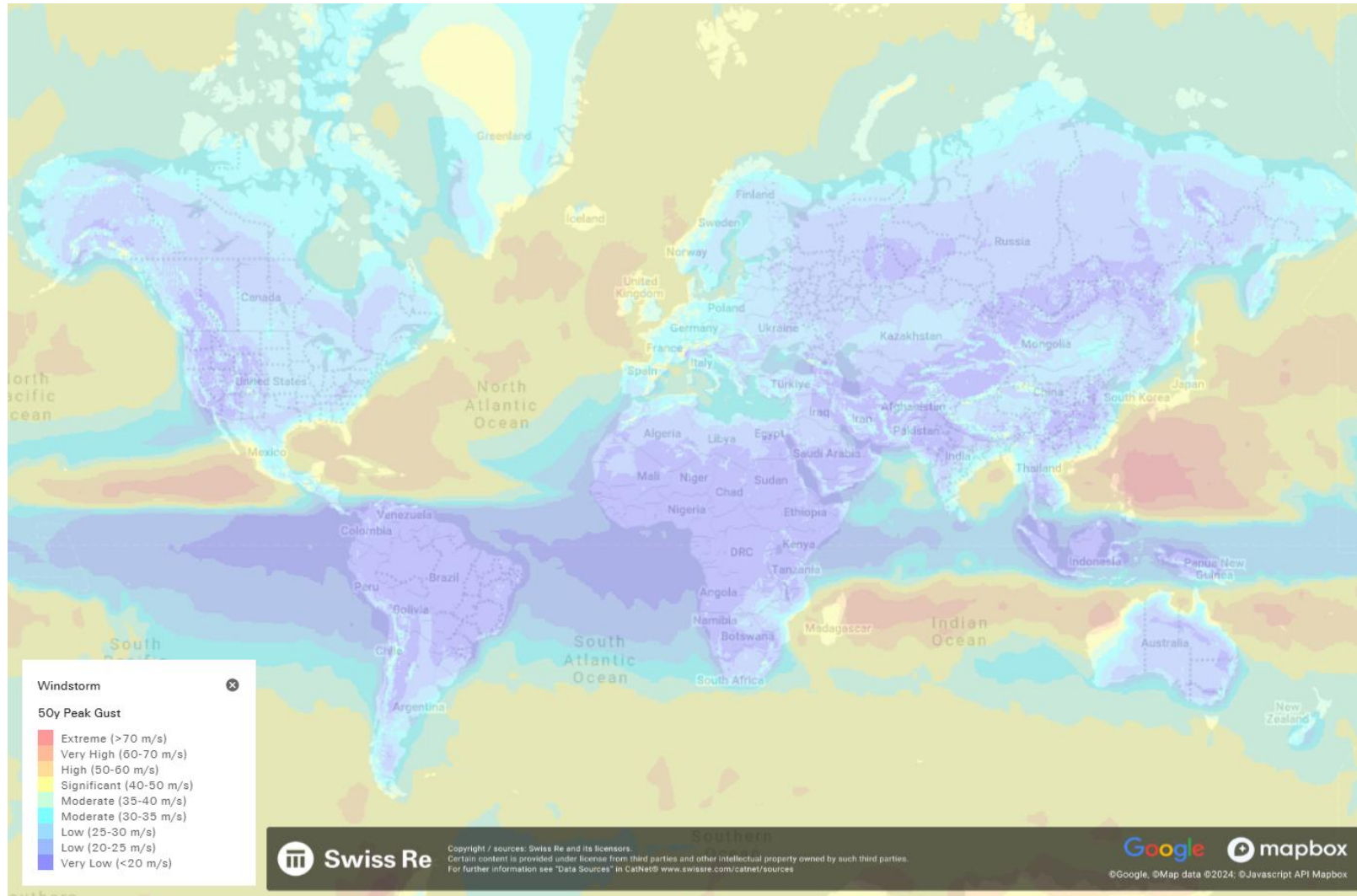
Source: Amazon.com



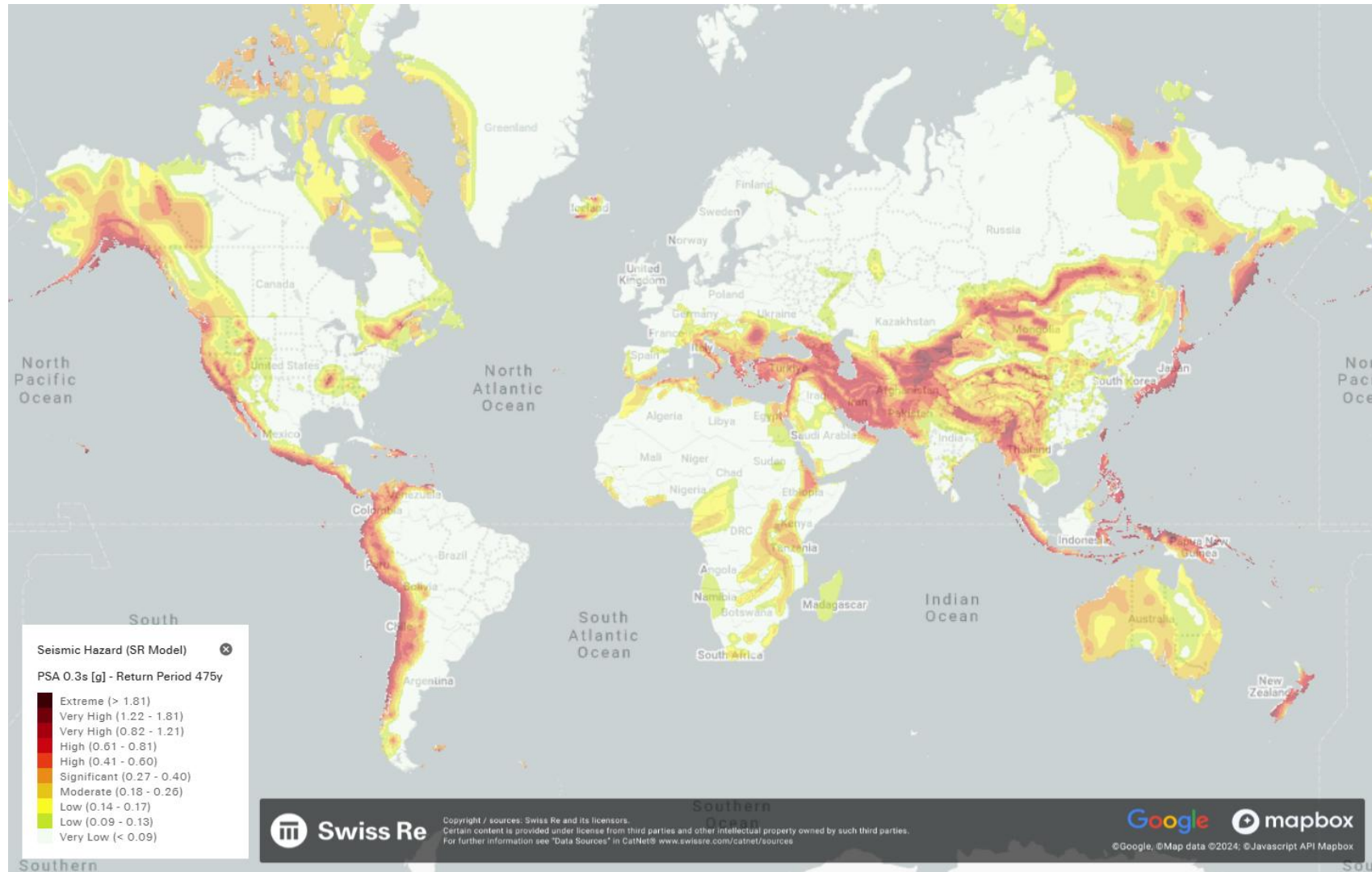
# The Marine landscape



# Wind Storm Hazard Map



# Earthquake hazard map



# Cargo insurance: Accumulation

## Exposure to Nat Cat



### Marine Liabilities

- Ship-owner /-managers Liability (P&I)
- Terminal Operators Liability
- Marina Operators Liability
- Charterers' Liability
- Yacht TPL

### Hull

- Blue Water
- Brown Water (incl. Fishing Vessels)
- Pleasure Crafts
- Ship Builders risk
- *Shipyards & Boatyard Accumulation*
- *Vessels under construction and repair*

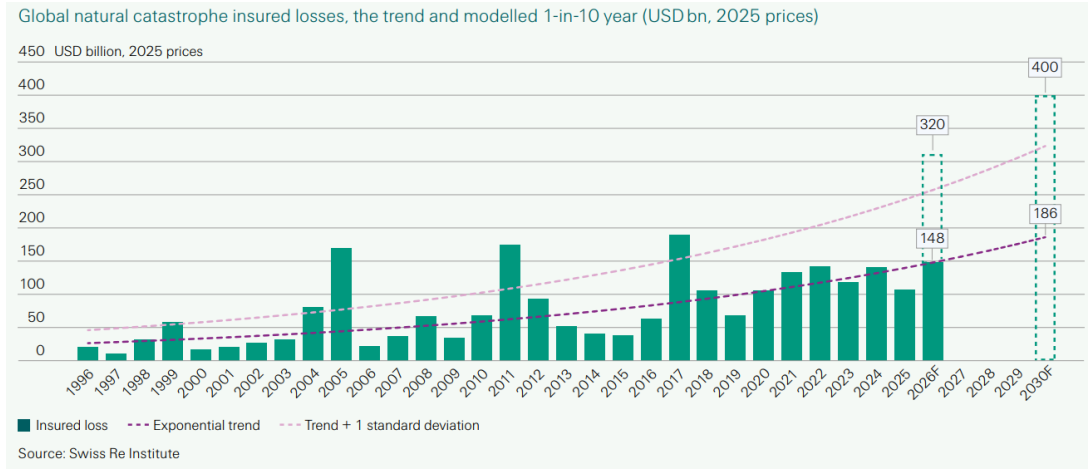
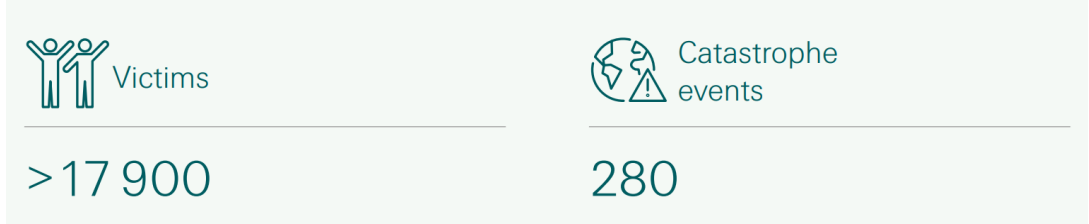
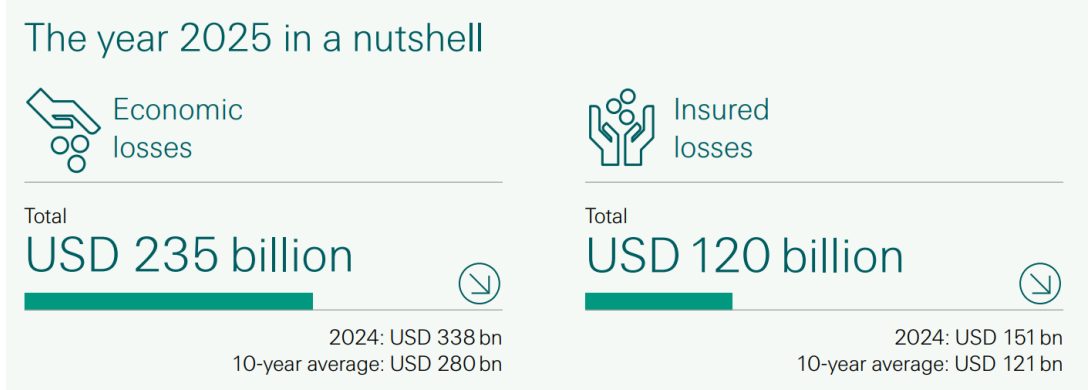
### Cargo

- Goods in Transit and storage
- Specie and Fine Art
- *Port/Warehouse Accumulation*

### Energy

- Offshore / Upstream
- Onshore / Downstream

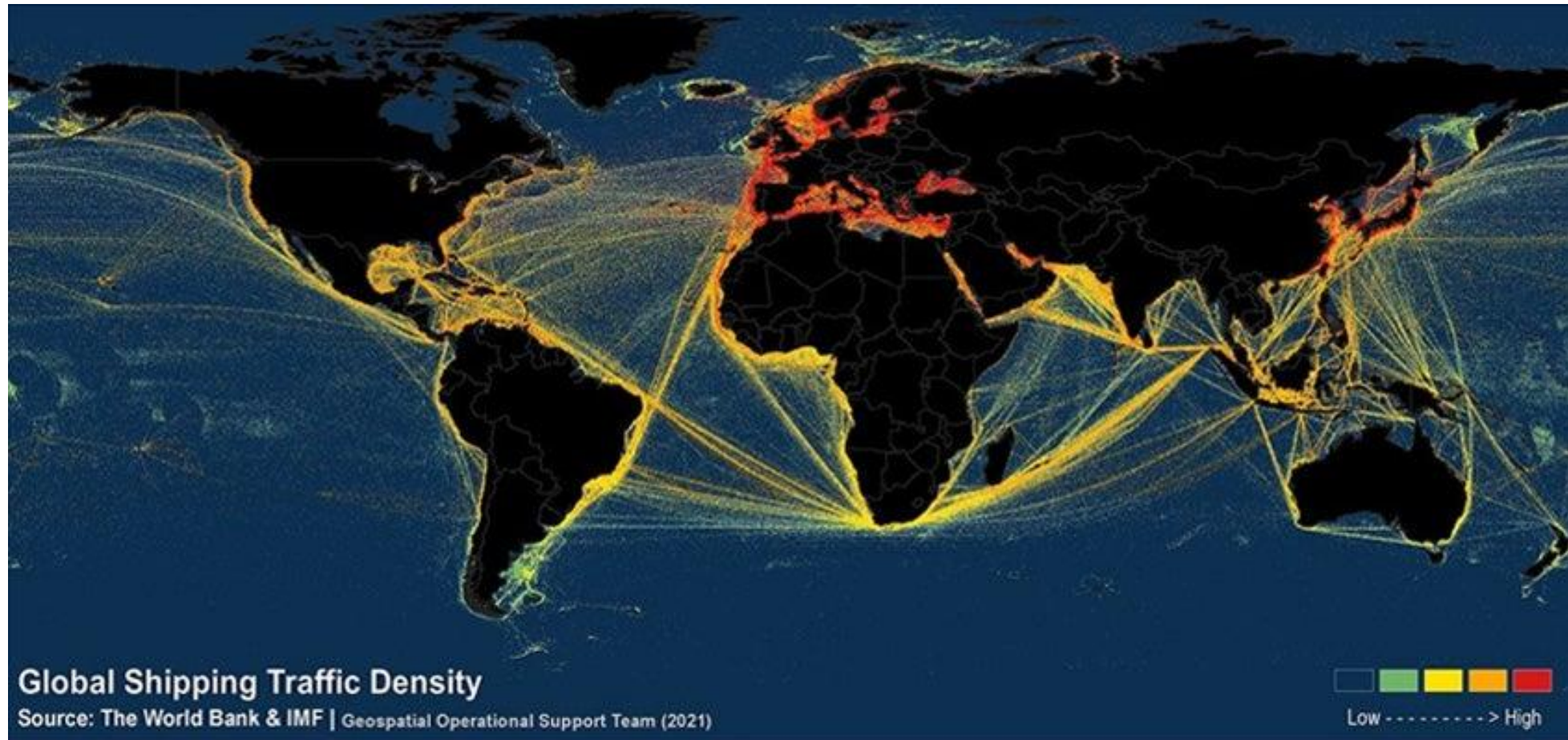
# Global Nat Cat losses: A Trend



# Cargo Risk accumulation: The 50 largest ports in 2024



# Global Shipping Traffic



# Why are we telling you all this?

# Types of Losses



## Frequency

As a rule, these are losses with a low loss amount that occur frequently. Frequency losses are generally easy to calculate and remain relatively stable in large portfolios.



## Large Losses

They differ from frequency losses in that they involve significantly higher loss amounts. Accordingly, such losses are associated with higher volatility. The definition of a large loss varies from insurer to insurer and from portfolio to portfolio.



## Nat Cat & Accumulation

Accumulation losses, which are composed of multiple individual risks that were affected by a single event (storm, hail, fire, total loss of a container vessel, etc.).

# The Challenge for Reinsurers

## Types of losses



## Loss models

Looking back



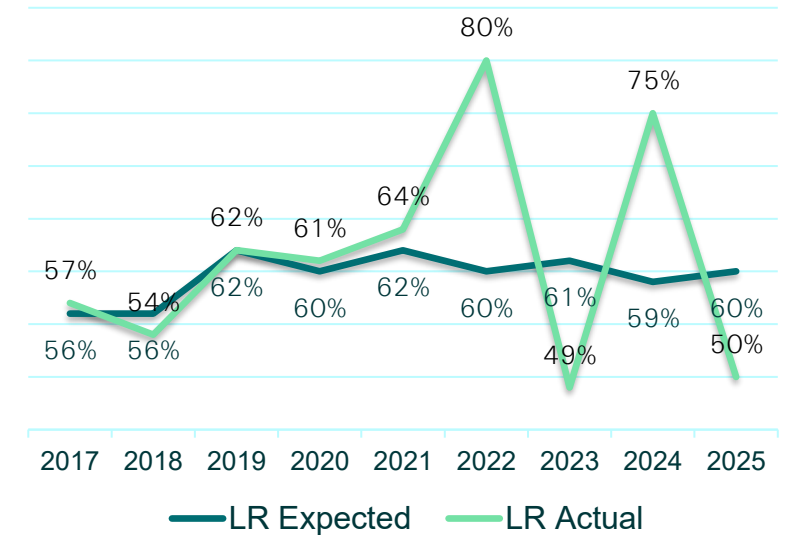
- Claims experience (minimum 5 years, including date, cause, policyholder, damaged good, location, vessel type, owner, age, type of damage)

Looking forward



- Strategy, capacity
- Leading or Follower
- Underwriting authority delegation
- Expansion plans
- Decision-makers
- Portfolio breakdown, market environment
- Perils, premium level

## Actual vs. Expected



# Costing Challenge

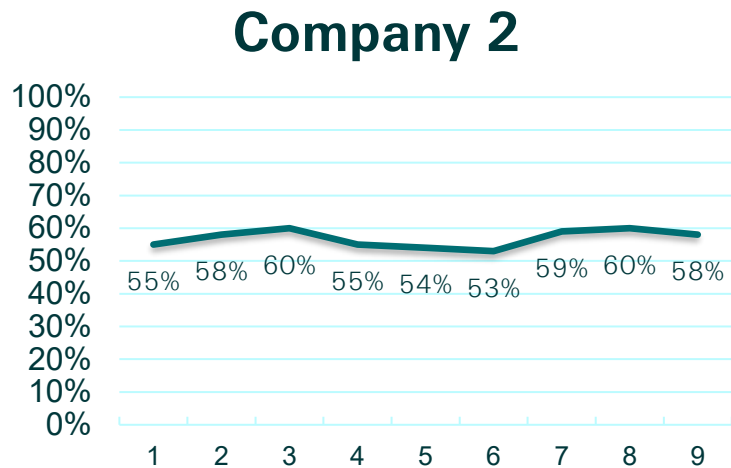
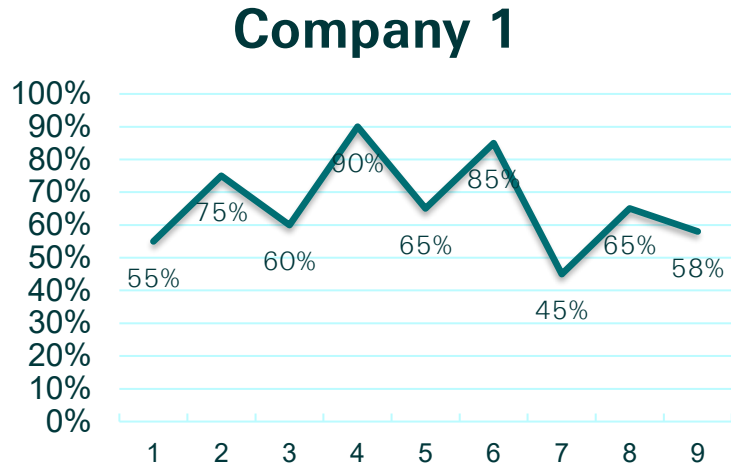
- Reinsurance underwriters require the same information as the primary insurer to calculate the risk premium.
- Reinsurers may impose or waive additional clauses, exclusions, and conditions as part of the negotiations.
- **The reinsurance structure must be aligned with the underlying risk.**



ICC(A) All risk	ICC(B) Named perils +	ICC(C) Named perils
Unknown acc. Nat. Cat. L		
Large L	Unknown acc. Nat. Cat. L	Unknown acc. Nat. Cat. L
Basic L	Large L	Large L
	Basic L	Basic L

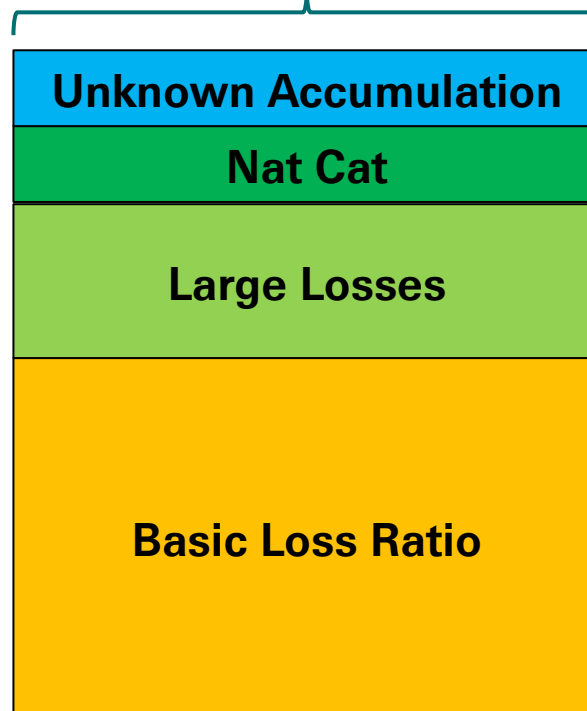
Is the calculated risk premium by the primary insurer sufficient in relation to the given exposure?

# Loss Elements



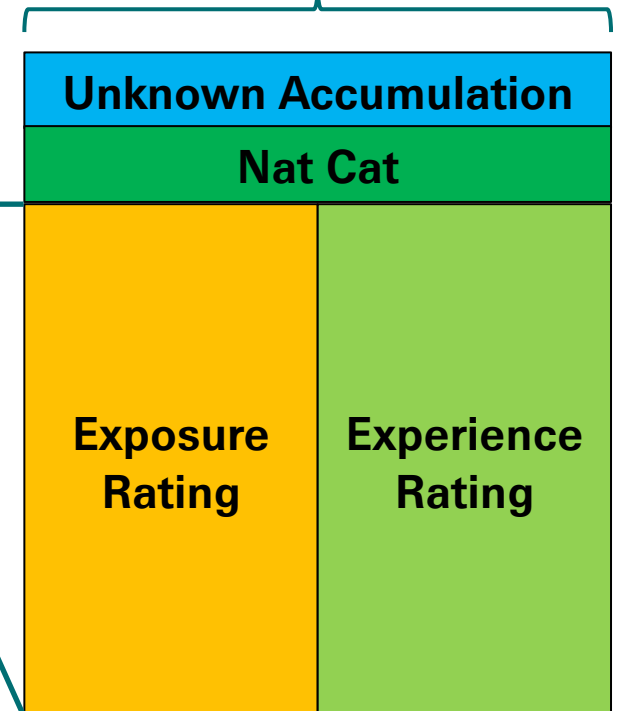
## Proportional Treaties

Costed Loss Ratio



## Non-Proportional Treaties

Costed Loss Ratio



# Experience Rating

## Loss Elements - Large Losses



## Loss Elements - Large Losses



Total Loss: R5'000

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Period: 4 years

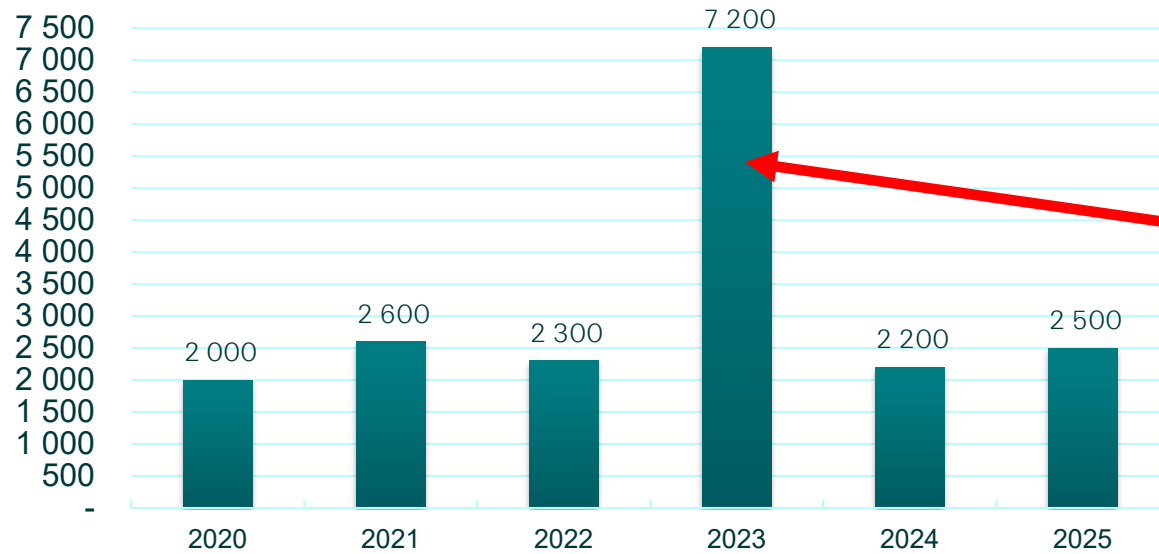
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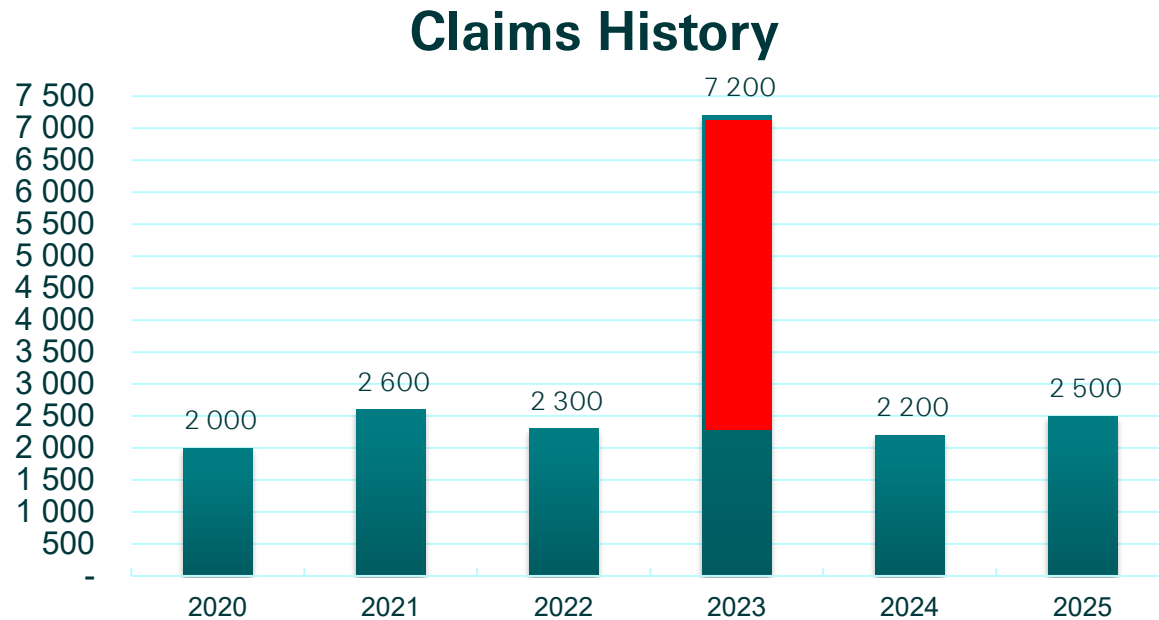
Expected Loss:  
 $R5'000 / 4 = R1'250$

# Loss Elements - Large Losses

## Claims History



# Loss Elements - Large Losses



Assumption:

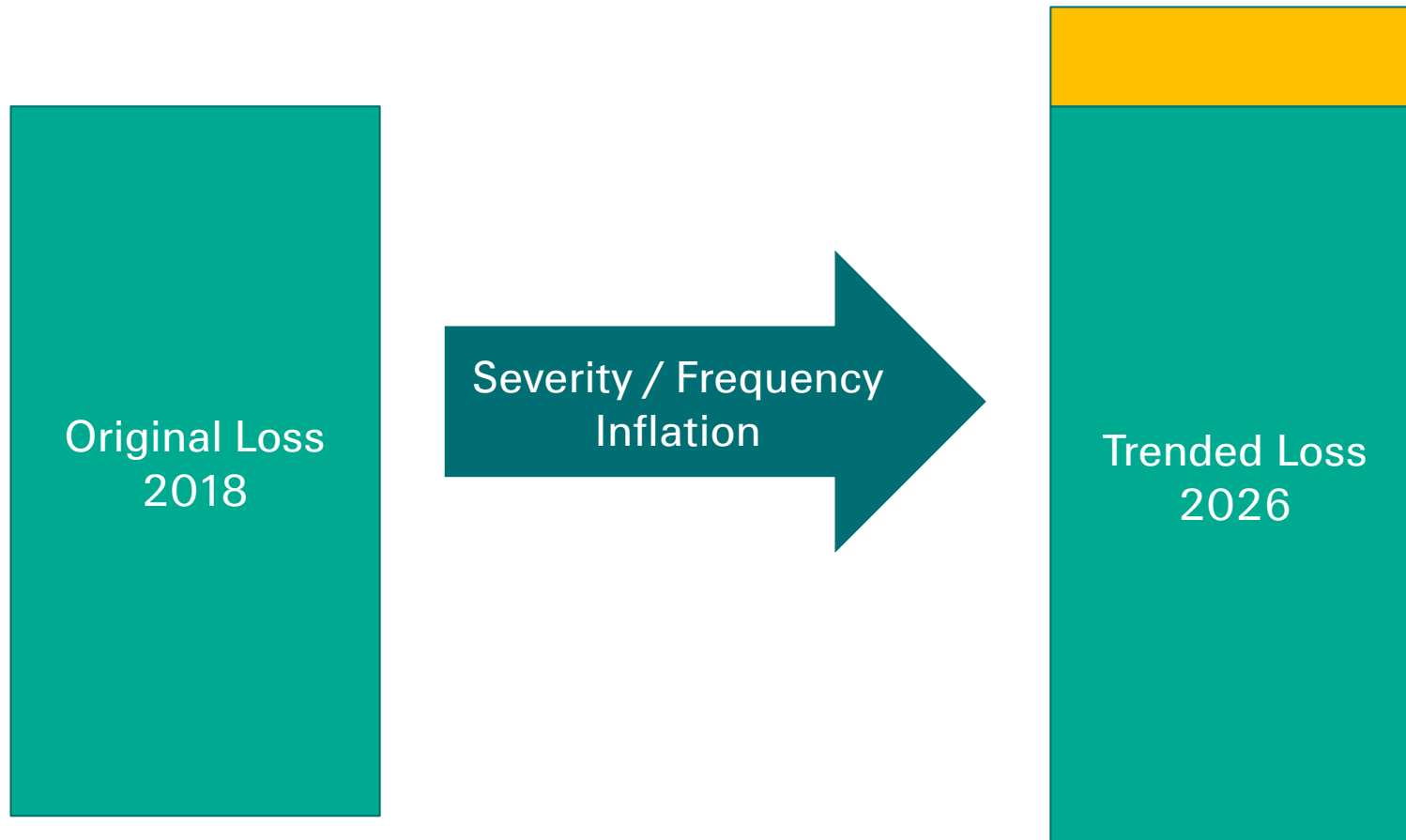
1 Total Loss every 4 years

Basic Losses: R2'300

Large Losses  $R5'000/4 = R1'250$

**Expected Loss: R3'550**

# Loss Trending



## Severity Inflation:

- General Inflation
- Claims Cost Inflation
- Legal Inflation
- Social Inflation

## Frequency Inflation:

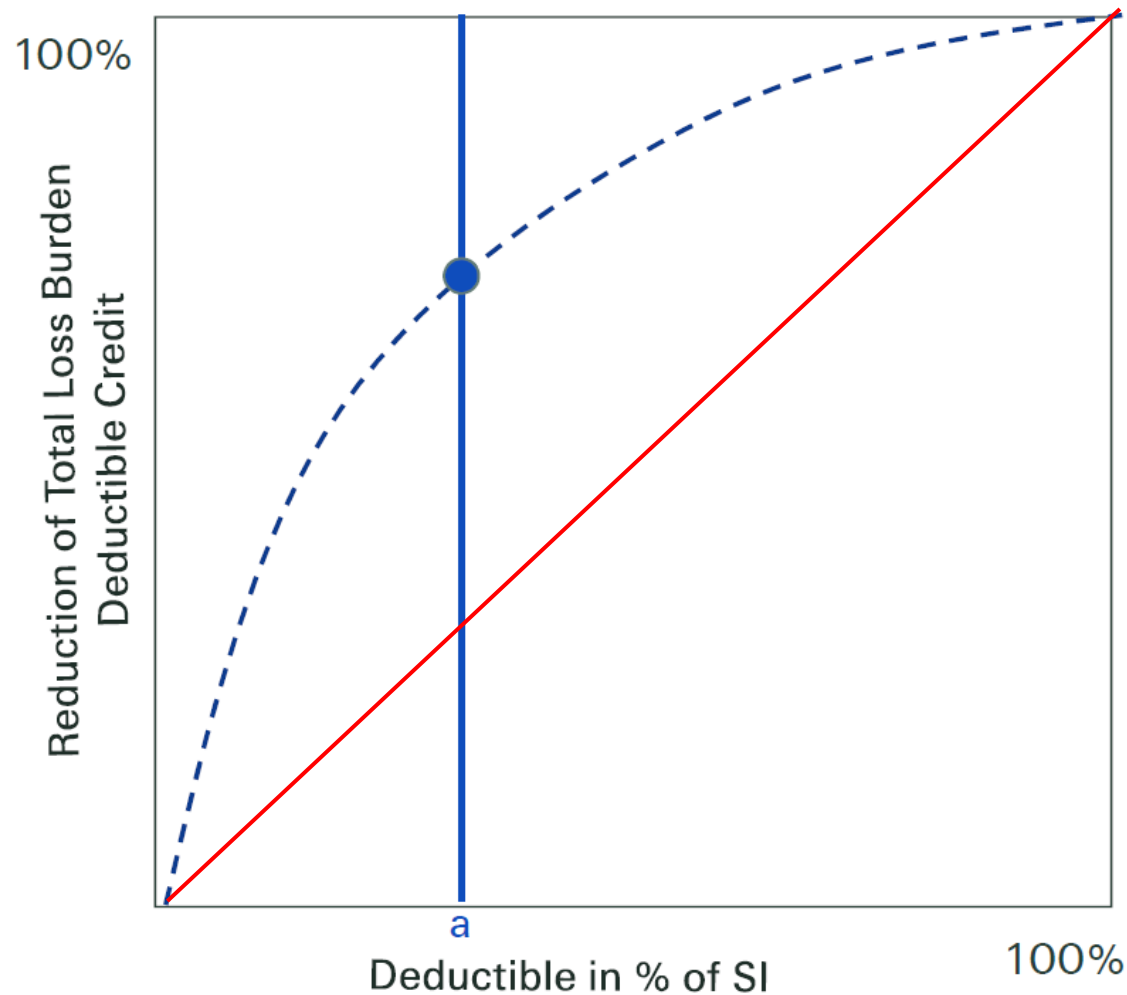
- Exposure density
- Portfolio Mix
- Safety Standards
- Operational Practices

## Exposure Trend:

- Change in Total Sum Insured
- Change in Limits
- Change in Portfolio Size

# Exposure Rating

# Exposure Rating



The Exposure Curve describes how frequent different loss sizes / loss degrees are.

In other words, it indicates the reduction in the expected loss due to a deductible.

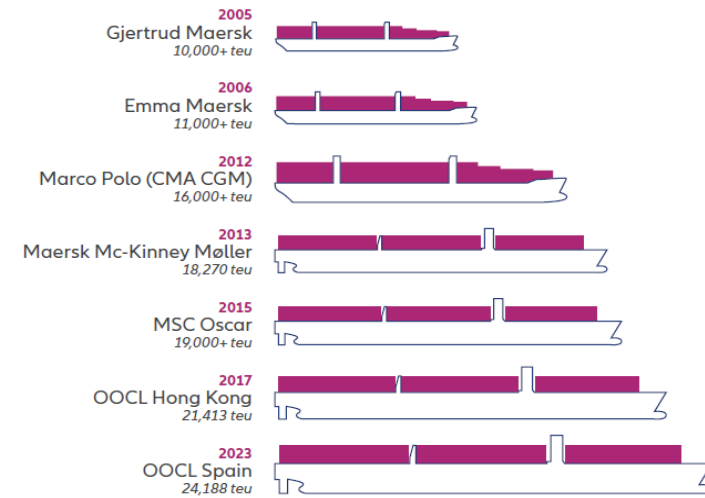
Different curves are applied depending on:

- Probability of **Partial** / **Total** Loss
- Exposure of the risk

# Accumulation

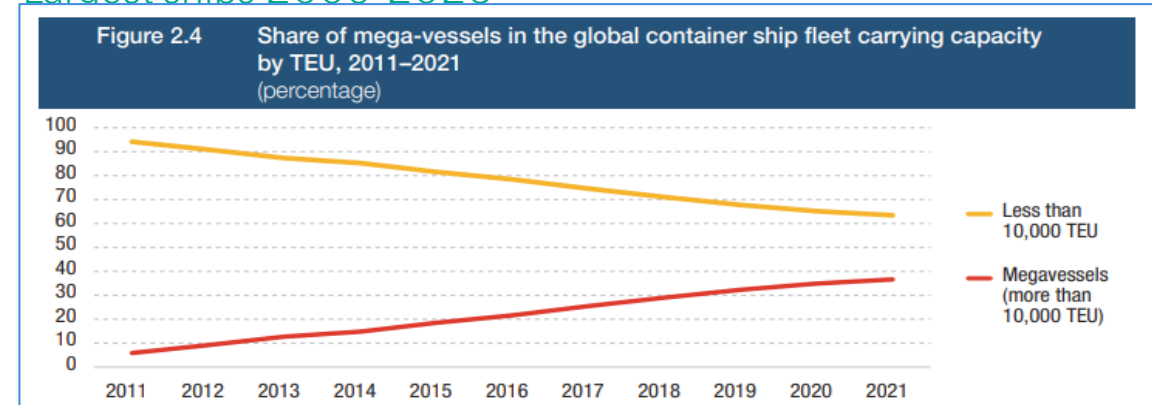


## 20 years of container ship growth



Capacity of the largest container vessels has doubled in the last 20 years.  
 Source: AGCS Safety and Shipping Review 2023

## Largest ships 2005-2023



Source: UNCTAD calculations, based on data from Clarksons Research

## Conclusion

**Interest & Any Exclusions:**

This Contract is in respect of all business underwritten by the Reassured and allocated to their Net Retained Energy Account.

Off-shore or on-shore energy businesses written by or through the Exploration and Production segment of the Reinsured or Policy Issuing Company's energy practice, including oil and/or gas and/or other extractive businesses and similar or affiliated properties including but not limited to drilling rigs, platforms, pipelines, barges, vessels, cost of control, drilling equipment, wind farms and supplies, liabilities, removal of debris, contractual liability associated with this class of business and such other insurances and/or reinsurances as are normally required by companies engaged in energy businesses, including oil and/or gas and/or other extraction, exploration, production, development, distribution or storage wherever underwritten, anywhere in the world.

Any  
questions?



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