

# AESIS Conference

## An Introduction to Parametric Nat Cat

September 22 – Martin Hotz



# Swiss Re – we make the world more resilient



## Our Vision

We have a distinct mission: Together, we apply fresh perspectives, knowledge and capital to manage risk. That's how Swiss Re creates **smarter solutions** for our clients, helping the world rebuild, renew and move forward. Since 1863.



## Our Setup

Swiss Re is organized into three Business Units, with the **Corporate Solutions** unit serving commercial insurance customers across the globe.



## Our Advantage

Swiss Re Corporate Solutions is the **leader** in Commercial Parametric Nat Cat Insurance, with more than 200 policies underwritten in 2022.

Para ... what?

## Parametric Insurance:

An insurance policy where a pre-agreed payment is made based on an event parameter meeting a pre-defined severity



# Parametric Nat Cat Insurance

## What is parametric insurance?

Parametric policies **pay out when an event parameter meets or exceeds a pre-defined value**, and the insured incurs a financial loss.

Nat Cat Peril Examples: Earthquake, Tropical Cyclone, Hail, Flood.

The parametric trigger is set in a manner that if it is triggered, it is highly likely the insured would sustain **financial** loss

## Structure

- **Transparent loss settlement:** payout is determined by physical parameters as provided by an independent 3<sup>rd</sup> party
- **Proof of loss:** Financial interest cover (pre agreed value – EU) or simple confirmation of total loss amount (US)
- No dollar or percentage deductible
- Coverage terms: 1-3 years

## Key benefits



**Quick payout:** typically, within **30 days** of an event



**Broad coverage:** Payouts can be used for property replacement, repair costs, business expenses, lost revenue, and other immediate economic needs.



**Flexibility** in structuring the cover.

# Backbone of a Parametric Insurance Policy



## Location

Defined by a geographic coordinate or area



## Limit

Specified for the location in question



## Data Provider

Definition of an independent 3<sup>rd</sup> party

Wind Speed	% of Limit
100	25%
120	50%
140	75%
160	100%

## Payment Scheme

Based on the reported parameter

# Parametric Insurance: Claims Process

A quick and transparent settlement

Event intensity is reported through agreed data source

Payment of the pre-agreed amount is made within 30 business days



Trigger event occurs e.g. Earthquake of certain intensity

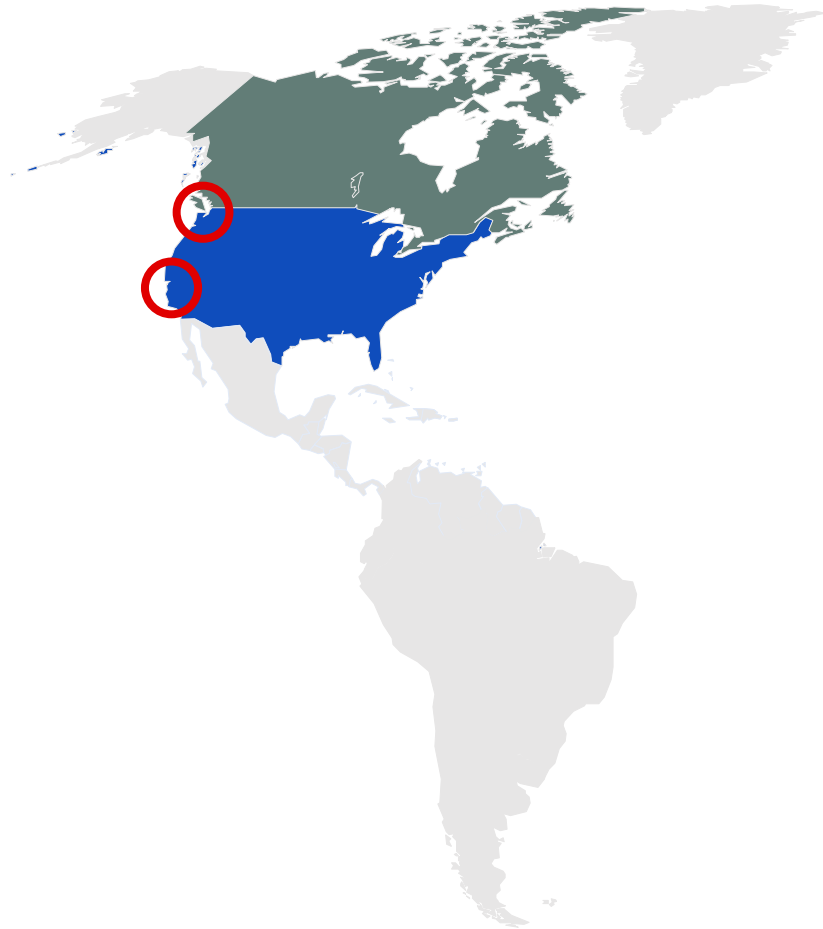
The trigger event exceeds the pre-agreed threshold

Proceeds can be used at the full discretion of the insured

# Parametric Insurance: Why consider it, and for who is it?



## Parametric Nat Cat Coverage – Use Case Example: Trade / Transportation



**Cargo ships are so stuffed that ports are struggling to unload them**



- Ports are extremely vulnerable to Earthquakes (soft soil / landfill)
- West Coast ports (e.g. Vancouver, Los Angeles) already operate at or beyond capacity
- Following a major Earthquake, importing activity (building material, furniture, electronics, appliances, ...) will spike, causing dramatic supply chain issues and further aggravating ongoing inflation

→ West Coast mega-CBI potential

→ Financial impact can be addressed via parametric EQ coverage



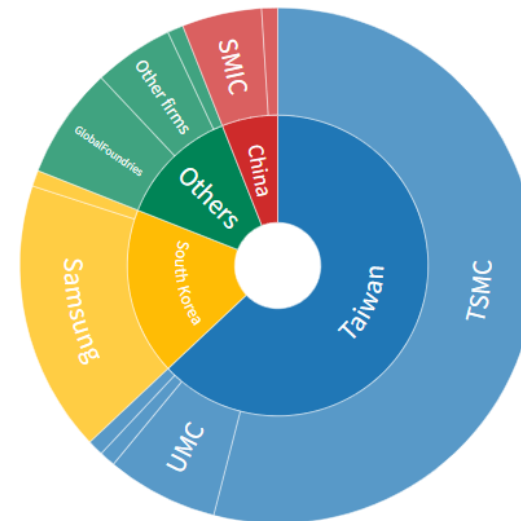
# Parametric Nat Cat Coverage – Use Case Example: Semiconductor Value Chain

- The world depends on Taiwan for Semiconductors
- Already now, value chains are impaired due to the global chip shortage (e.g., car industry).
- Sprinkle this situation with a strong EQ in Taiwan

→ global CBI event of colossal dimensions  
→ financial impact can be addressed via parametric EQ coverage

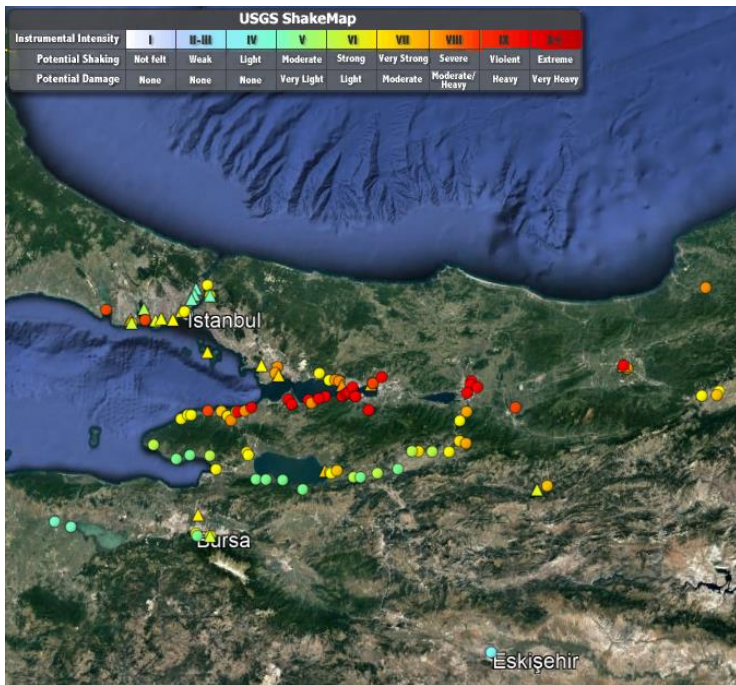


**Semiconductor contract manufacturers by market share**  
Total foundry revenue stood at \$85.13 billion in 2020

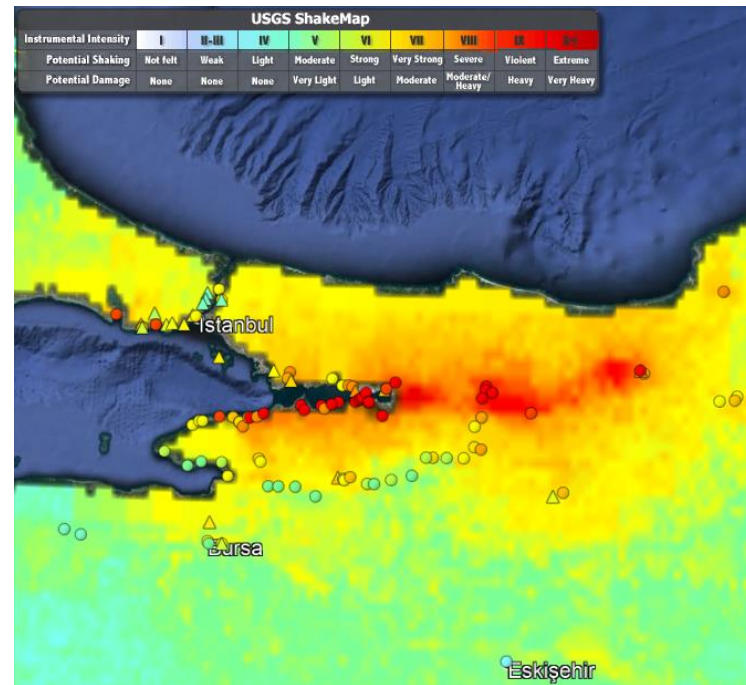


# Parametric Earthquake - Swiss Re QUAKE

- **3<sup>rd</sup> Party Data Provider:** US Geological Survey, providing a shaking intensity footprint for every significant earthquake
- **No box:** The parameter is the reported acceleration at defined locations
- **No limit to the number of locations:** Works for a single site or an entire portfolio. Also works for non-owned assets (e.g. critical suppliers, critical infrastructure)



Station Measured and Reported Intensity Data for the 1999 Izmit Earthquake



Interpolated to a Seamless Grid (ShakeMap), covering every location

## Questions we often get

1. How can it be ensured the trigger has been set at the right level and limits are sufficient?
2. How independent and reliable are the data sources and can they be verified by the client?
3. Are there any limitations with regards to covered perils which can be covered?
4. What is, if a reporting station gets destroyed during an event and is not able to deliver data?
5. What parametric limits can be provided?
6. Are Long Term Agreements (LTA) possible?
7. Do you have examples where the cover paid out?

# Thank you!

## Contact us



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## Follow us



# Appendix

# Parametric Nat Cat – The Swiss Re Corporate Solutions Value Proposition



## PEOPLE

Innovative Risk Solutions (IRS) and dedicated Parametric Nat Cat UW working hand-in-hand, combining decades of experience from 100s of closed transactions, supported by legal, claims, finance experts



## SOLUTIONS

Award-winning solutions (STORM, QUAKE, HAIL) as well as more “vanilla” covers (e.g. CIB / CIC), done in bespoke fashion as well as via platforms, always with the goal to provide covers that work



## LONG-TERM COMMITMENT

Substantial, 100% Swiss Re Group capacity, deployed in insurance and derivative form, with ability to support multi-year contracts

# Testimonials & Thought Leadership Articles

## Testimonials

HAIL US:

<https://corporatesolutions.swissre.com/insights/knowledge/parametric-HAIL-automotive-customer-success.html>

EQ Japan:

<https://corporatesolutions.swissre.com/insights/knowledge/customer-case-study-parametric-quake-japan.html>

EQ US:

<https://corporatesolutions.swissre.com/insights/knowledge/customer-case-study-parametric-quake.html>

Typhoon Philippines:

<https://corporatesolutions.swissre.com/insights/knowledge/parametric-typhoon-case-study.html>

## Thought Leadership

Ports – Earthquake exposed Supply Chain Bottlenecks:

<https://corporatesolutions.swissre.com/insights/knowledge/earthquake-preparedness-at-critical-ports.html>

Small chips, big role: How earthquakes can hurt supply chains:

<https://corporatesolutions.swissre.com/insights/knowledge/how-earthquakes-can-hurt-supply-chains.html>

How to save money with parametric insurance:

<https://corporatesolutions.swissre.com/insights/knowledge/how-to-save-money-with-parametric-insurance.html>



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