

QUAKE for Engineering and Construction Industry

Fast Parametric Earthquake Insurance

Construction Projects exposed to earthquakes often face gaps in coverage in their traditional insurance policies. Swiss Re Corporate Solutions offers tailor made parametric insurance to complement traditional programs that cover a broad range of economic losses related to an earthquake with limits increasing in line with the construction project schedule.

What is parametric insurance?

- Parametric insurance policies are products that pay out when an earthquake meets or exceeds a certain ground shake intensity at a defined location, and the insured incurs losses.

Key differences from traditional insurance

- Traditional insurance is indemnity based, and coverage is based on deductibles, sublimits, precise policy terms and conditions. Claims are paid when losses exceed the retention held by the insured, and settlement can take months or years.
- Parametric insurance is index-based, meaning coverage is triggered if predefined event parameters are met or exceeded. There is no claims adjustment process to determine the value of the loss. The parametric trigger is set in a manner that if it is triggered, it is highly likely the insured would sustain actual loss.

About QUAKE

- Our proprietary QUAKE product is unique in the marketplace. We tailor each policy to closely mirror the insured's experience during an earthquake by using USGS as the third party data provider. Following an earthquake, USGS produces an ShakeMap, allowing ground shake

intensity to be calculated closest to the insured's location(s). The policy pays out based on the intensity of the event as the insured experiences it.

- QUAKE parametric insurance are highly customizable to insured's exposures. Limits and triggers can be adjusted to reflect the insured's insurable interests and budget.
- Once terms are agreed and pricing is finalized, the policy is bound. If an earthquake occurs near the insured's location and the insured sustains a loss, they notify Swiss Re Corporate Solutions, we determine whether there is coverage based on third party data, and a payout is made.

What can the payout be used for?

- Fill in the traditional insurance deductible.
- Cover business interruption even if there is no direct physical loss or damage (i.e. physical property is not significantly damaged, but revenues decrease due to temporary loss of attraction).
- Fund losses from sublimited or excluded coverage including debris removal, sidewalks, land repair, and others can be recovered using the parametric payout.
- Cover increased costs following an event.
- Recover quickly following the event with a quick payout.

Key facts & benefits



Policy limits

Up to USD 50m per event; larger limits can be explored.



Payout

Within 30 days following an event.



Broad coverage

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



Transparent loss settlement

A payout is determined by physical parameters as provided by an independent third party.



Proof of loss

Simple confirmation of total loss amount, signed by an officer of the company; no receipts required.



Coverage terms

Can cover the length of a multi-year project



No dollar or percentage deductible



Build up of Values: Values can be built up in line with the construction project schedule



Annual Reset Clause: In the case of delays, the build up of values can be readjusted at each anniversary

Our proprietary QUAKE product uses USGS as a third party data provider. The USGS produces a granular Shake Map, allowing ground shake intensity to be determined at the insured's location(s). For insureds with multiple locations, limit can be allocated based on their needs.

Case Study: Hydro Dam Nepal

- Construction of a Hydrotam in Nepal seeking parametric EQ cover
- Ground shake intensity at the location provided by USGS
- Limit per occurrence / per annum / term aggregate limit: as per schedule of monthly values declared and subject to Annual Reset Clause, example provided below
- Payout is based on the table below

EQ Intensity PSA 0.3s (% of g)*	Payout (% of limit)
30–44	10%
45–59	20%
60–74	40%
75–89	60%
90–114	80%
115%+	100%

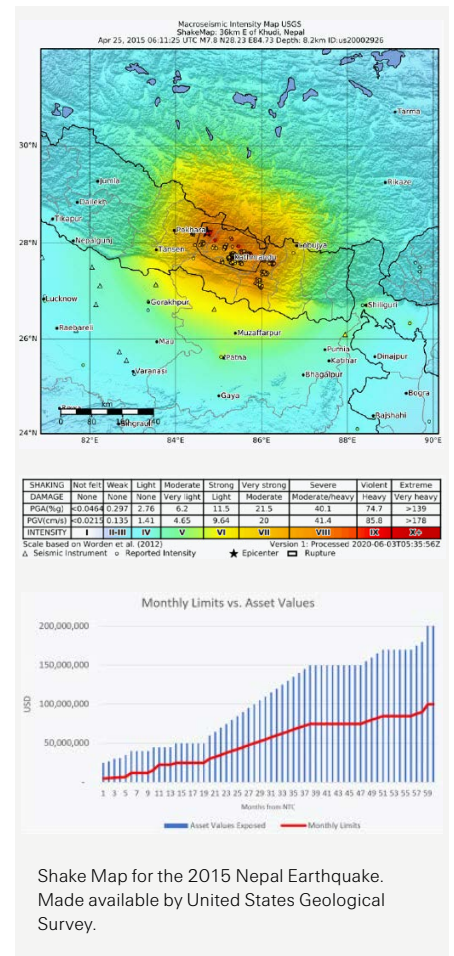
Once terms are agreed and pricing is finalized, the policy is bound. If an earthquake occurs near the client's location and the client sustains a loss, the client notifies Swiss Re Corporate Solutions; we calculate whether there is coverage based on USGS data; and a payout is made.

Client's motivation was lack of EQ capacity in the traditional market due to 2015 EQ which impacted the construction site location. It was a requirement of the World Bank for Earthquake cover to be in place and this was the first time a parametric policy was accepted as evidence of cover.

60% p/o USD 5m limit = USD 3m payout within 30 days following the event.

Remainder of the annual limit available for future events during the policy term.

* Pseudo-spectral acceleration, a measure of ground shaking intensity provided by the USGS Shake Map



Sample experiencing shaking

Severe

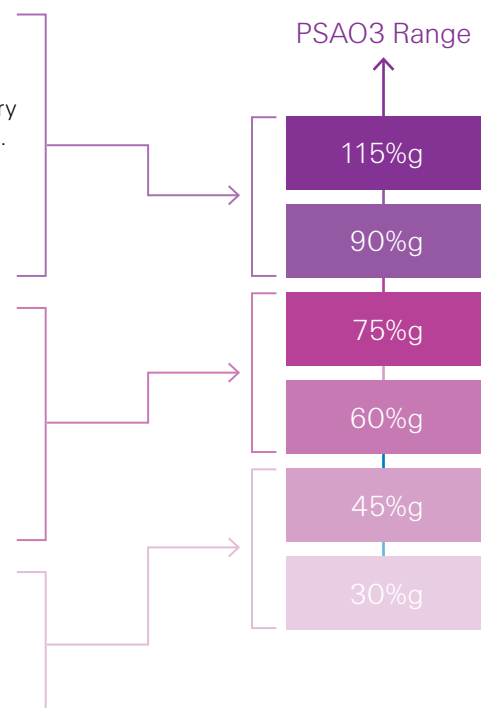
Damage slight in specially designed structure; considerable damage in ordinary substantial buildings with partial collapse. Damage great in poorly built structures; Fall of chimney, factory stacks, columns, monuments, walls. Heavy furniture overturned.

Very Strong

Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable damage in poorly built or badly designed structures; some chimneys broken.

Strong

Felt by all, many frightened. Some heavy furniture moved; a few instances of fallen plaster. Damage slight.



Questions?

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