



# QUAKE

## Parametric Solution based on USGS data

Clients exposed to earthquakes often face gaps in coverage in their traditional insurance policies. Swiss Re Corporate Solutions offers tailor made parametric solutions to complement traditional programs that cover a broad range of economic losses related to an earthquake.

### 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 pre-defined 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 event ShakeMap, allowing us to calculate ground shake intensity 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 solutions are highly customizable to insured's exposures. Limits can be spread across multiple locations, 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
- Covering business interruption even if no 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)
- Funding 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

**Transparent loss settlement:** a payout is determined by physical parameters as provided by an independent third party



**No dollar or percentage deductible**

**Broad coverage:** payouts can be used for property replacement, repair costs, business expenses, lost revenue,



**Proof of loss:** simple confirmation of total loss amount, signed by an officer of the insured;



**Coverage terms:**

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

### Sample Client/Scenario

- Single location property seeking parametric EQ cover
- Ground shake intensity at the location provided by USGS
- Trigger Location: 38.275°N 122.297°W
- Limit per occurrence: USD 5M
- Limit per annum: USD 5M
- Term aggregate limit: USD 5M
- Payout is based on the table below

EQ Intensity PSA 0.3s (% of g)*	Payout (% of limit)
30 – 44	10.0%
45 – 59	20.0%
60 – 74	40.0%
75 – 89	60.0%
90 – 114	80.0%
115% +	100.0%

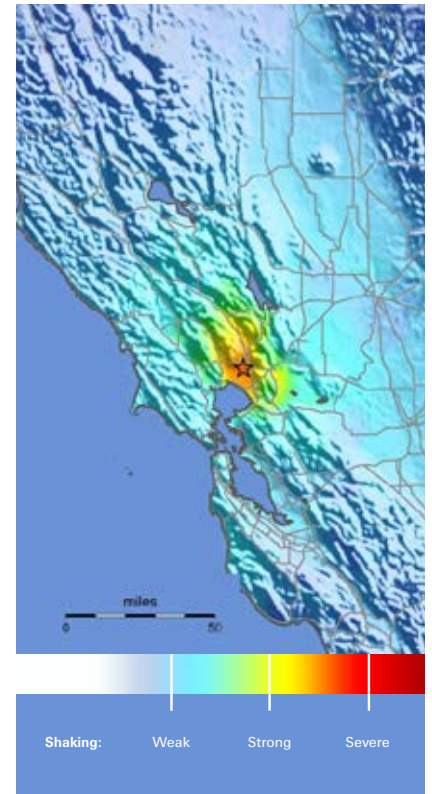
Once terms are agreed and pricing is finalized, the policy is bound. If an earthquake occurs near the client's location and the client sustains a loss, the client notifies Swiss Re Corporate Solutions; we calculate whether there is coverage based on USGS data; and a payout is made.

Sample Single Location impacted by the 2014 Napa Earthquake; ground shake intensity at this location during Northridge was 80% of g (PSA 0.3s), which would have resulted in a 80% policy payout.

60% p/o USD 5M limit = \$3 Million payout within 30 days following the event.

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

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



Shake Map for the 2014 Napa Earthquake. Made available by United States Geological Survey.

### Sample experiencing shaking

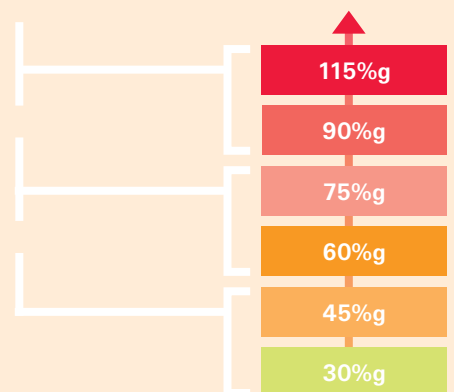
**Severe:** Damage slight in specially designed structure; considerable damage in ordinary substantial buildings with partial collapse. Damage great in poorly build structures; Fall of chimney, factory stacks, columns, monuments, walls. Heavy furniture overturned.

**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.

*Physical description of damage are from USGS and describe average impact; actual observed conditions in individual structures could diverge from average impact.*

### PSAO3 Range



### Questions? Please contact the Innovative Risk Solutions team

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