

## Parametric Solutions Improve Liquidity Following Major Loss Events

Natural disasters are increasing in frequency and severity, bringing with them unprecedented challenges for businesses. Direct physical damage from severe weather events, earthquakes, wildfires, and other catastrophes can bring business operations to a halt. Even companies that do not suffer physical damages often have to deal with sizable financial losses.

But while natural disasters, and the risks associated with them, are on the rise, traditional forms of insurance do not always sufficiently cover both the physical damage and loss of income associated with business interruption.

In managing the risk of natural hazards, your business can face a three-pronged problem:

- Losses from events that do not trigger insurance coverage. Depending on the nature of a specific loss, some traditional business interruption policies may not cover the resulting operational disruptions.
- Inability to secure coverage for the threat in question. Some perils are more difficult to insure through traditional markets, or may require a higher cost.
- Slow settlement processes. Even when coverage is available, payouts following an arduous and lengthy claims settlement process rarely come close to covering the full extent of losses.

Parametric solutions can enhance your risk-mitigation toolbox by filling gaps in coverage that could leave your company vulnerable, helping you be more resilient following a loss. Marsh specialists have the experience and knowledge to help you build the right parametric solution for your company.

### Supplementing Traditional Coverage

Parametric products — also referred to as event- or index-based solutions — are custom-built to cover a predefined event that could pose a threat to your business (see sidebar). Among other benefits, parametric solutions may:

- Protect your company against indirect economic loss, without the requirement of physical damage.
- Provide an alternative to property coverage that can supplement traditional insurance.
- Typically cover underinsured or uninsurable risks.

#### PARAMETRIC TRIGGER EXAMPLES

- **Earthquake:** shake intensity/ground acceleration at a specific location or magnitude of the quake and location of the epicenter.
- **Windstorm or hurricane:** hurricane wind speed at/within a predefined geographical area, local anemometer wind speed, or interpolated wind speed exceedance.
- **Hailstorm:** hail size, based on locally installed stations or interpolated from satellite data.
- **Drought or excess precipitation:** river height at gauges, ocean height at buoys/gauges, satellite or local station rainfall/snowfall data, satellite flood maps, or vegetation indexes.
- **Crop shortfall:** crop yield indices or satellite rainfall data.
- **Wildfire:** satellite imagery of burned area.
- **Epidemic/pandemic:** mortality/infection rates, sentiment index, or civil authority triggers.
- **Temperature:** local station or satellite data.
- **Solar irradiance or low wind:** on-site solar/wind data.
- **Non-damage business interruption:** above triggers or custom metrics such as revenue per available room (RevPAR), air passenger data, and motor vehicle department data.

Due to their bespoke nature, parametric solutions can be developed for a variety of other traditionally underinsured or uninsurable risks and exposures and generally only require ample third-party data.

- Allow for a simpler and more transparent claims process, typically leading to a quick payout that improves liquidity following a catastrophic event.

Parametric solutions offer a formulaic claims recovery based on agreed triggers and financial parameters that are structured around a transparent third-party index. The indexes can range from simple ones, such as measuring rainfall in a specific location, to multi-trigger programs that merge different parameters — for example, hurricane wind speed and storm surge measurements that may affect a single or multiple locations along the coastal US.

The buyer and seller of an event-based solution agree on a tiered payout formula (see Figure 1). Unlike traditional coverage, which often requires an extensive claims process, parametric payouts are typically made within days, as soon as third-party index data is available to calculate the formulaic payout. If the index is triggered, the agreed payment is made, which enables quick liquidity at a time of need. Coverage can be placed in an insurance or derivative format. If placed as insurance, a buyer is typically required to attest to having losses equal to or larger than the payout made — but only after receiving the payout. If the preference is to place protection in derivative format, our representatives from MMC Securities can assist and explain the coverage and settlement nuances.

## Filling Insurance Gaps

Parametric solutions are typically used to supplement your existing insurance portfolio, filling any coverage gaps that can leave your company vulnerable. These underinsured or uninsurable risks include indirect financial loss, deductibles or exclusions, and non-damage business interruption. Quick payouts can enhance your company's liquidity, reduce revenue volatility, and enable investment in post-loss priorities, such as aiding affected employees.

## Custom-Built Solutions

Marsh specialists have deep experience in developing index-based solutions, and can help you build a program that correlates with your exposures, leading to a reduction of basis risk. We can identify the best verifiable third-party data with extensive history that will allow for historical analysis.

Once we understand your challenges, our specialists can model the relationship/correlations between your historical losses, exposures, and available data, and design a tailored parametric solution. Tests on historical data allow us to define payout formulas, attachment points, and limits, enabling us to provide you with an estimate of the program's cost. We will then negotiate favorable pricing and terms with insurers on your behalf. The process typically takes between four and eight weeks.

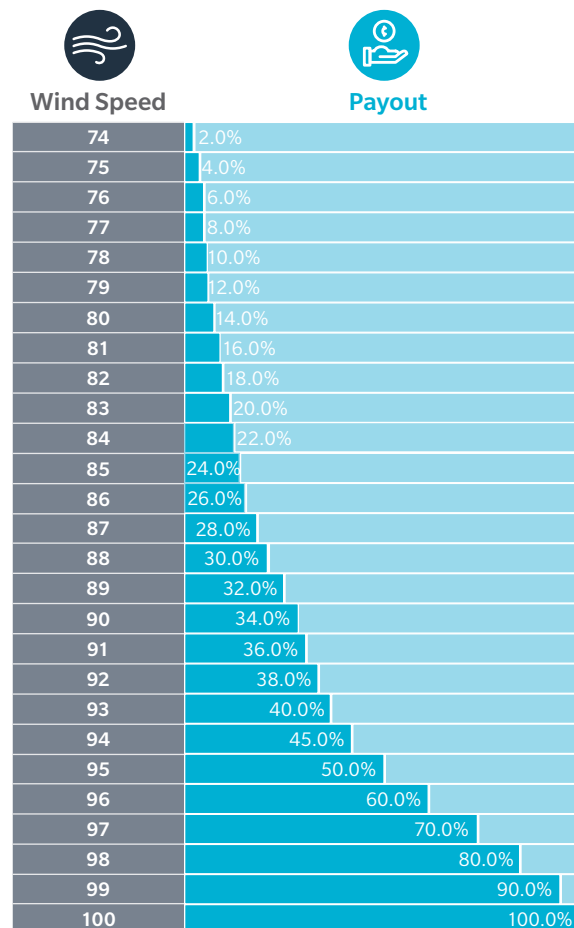
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**FIGURE 1** Parametric solutions typically include staggered payouts.

This example of a parametric solution is based on wind speeds at a specific location. The solution's staggered payment structure will start paying out if the trigger is met.



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