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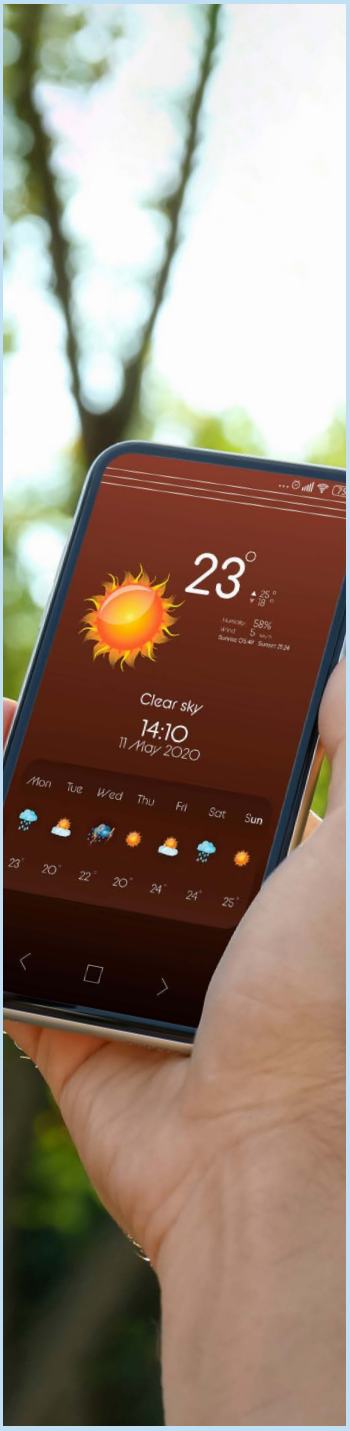

PARAMETRIC INSURANCE: A TOOL TO INCREASE CLIMATE RESILIENCE

Abstract

With the climate crisis coming to a head, and associated weather catastrophes becoming a repeated phenomenon in the last few years, companies need to be weather-proof against business disruptions. Parametric insurance offers a direct and innovative solution for both businesses and insurers and complements traditional insurance solutions so companies can build resilience against climate change

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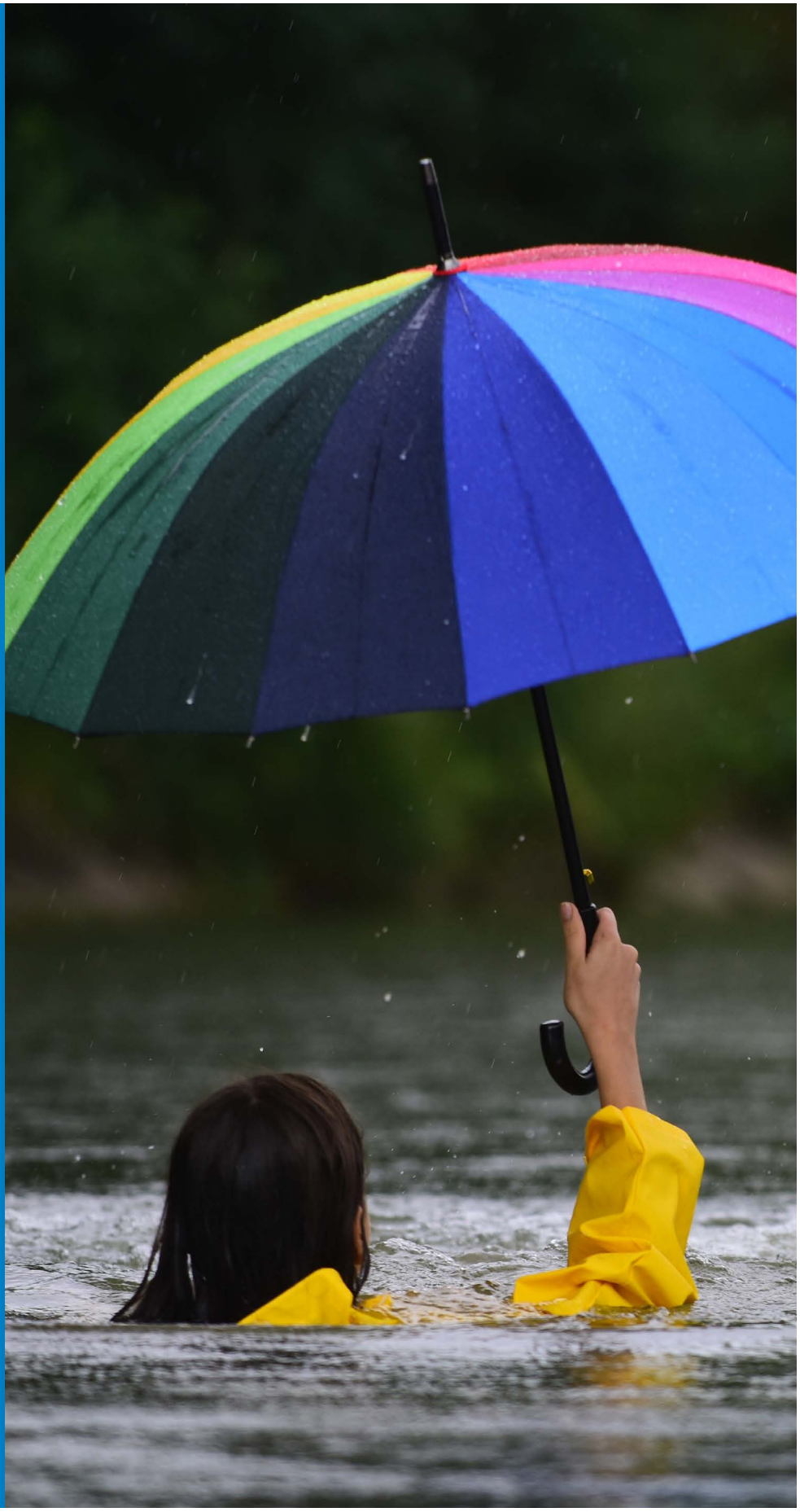
Natural disasters have been estimated to cause global economic losses of $380 billion in 2023. In terms of consumption losses that encompass human and economic losses, the World Bank estimates a staggering $520 billion – far more than the commonly reported losses in assets. While it was expected that the climate crisis would fuel natural disasters, the actual outcome is far worse. Natural disasters impact the business world for several reasons. Chief amongst these are a loss of assets and infrastructure, disruption of production, unexpected losses, spend on repair and rework, broken supply chains, and a slew of other reasons. Building resilience to climate change and disasters is required for businesses to be able to bounce back.

In 2023 alone, 63 out of 66 natural disasters were caused by weather-related events and resulted in billions of dollars of losses across the globe. However, only 40 per cent of businesses had insurance coverage for weather and climate-related disasters. According to Aon CEO Greg Case, climate risk is a certainty, and no longer just a probability. Companies must insure themselves against climate risk, and this is where parametric insurance comes in. Parametric insurance can prove to be a vital part of the climate resilience strategy for any business. It is also important for insurers to build resilience against climate change so that they can adapt to the changing risk landscape.



Parametric insurance – an overview

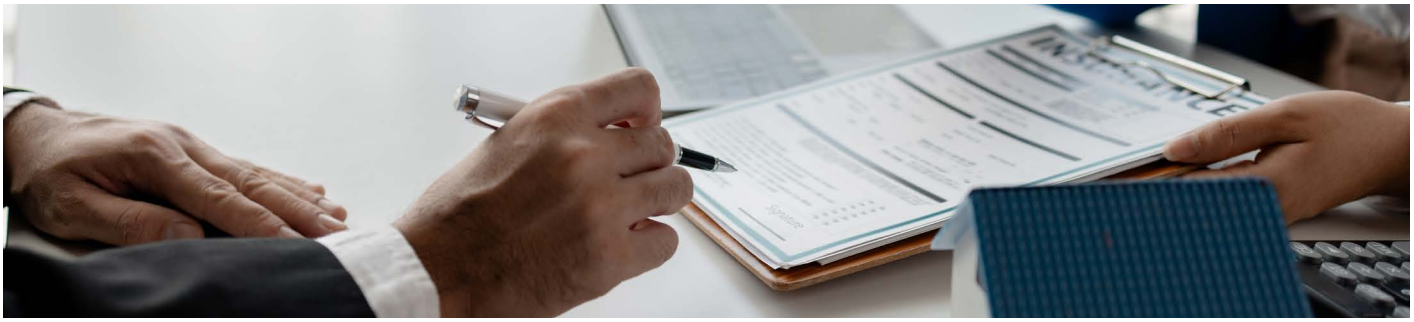
Traditional commercial property insurance requires a premium to be paid to the insurer, who in turn promises to cover the loss incurred due to the occurrence of an insured event. However, the insurer would carry out a detailed investigation of the incident, and only then approve the payouts. Delayed payouts result in slower recovery of organisations.

Parametric or index insurance addresses risks related to weather and climate by directly linking the payouts to the triggers related to the risks, such as the amount of rainfall. It covers the probability of the occurrence of a natural disaster, rather than indemnifying the actual loss incurred. There are two parts to parametric insurance: The trigger and associated parameter, and the mechanism for the payout.

Triggers and Parameters: The triggering event could be a natural disaster such as a cyclone, earthquake, flood, etc. Each event has a corresponding measurable parameter or index, such as, for example, wind speed for cyclones, magnitude for earthquakes, level of water for floods, and so on. A parameter is basically an objective measure that can be associated with an incident impacting the business, and that is ultimately tied in with the financial loss incurred by the business. The event and the associated parameters should be one that cannot be influenced by either the insurer or the insured. Besides natural catastrophes, parametric triggers can be associated with disease outbreaks (such as Ebola and COVID-19), or unexpected business losses such as a sudden drop in customer sentiment due to a cyber threat.

The payout: In parametric insurance, the payout mechanism is a fixed pre-agreed sum that is given once the threshold of the parameter or index is reached.

For example, let's say the parametric insurance policy for company Y states that USD 5 million is the payout if the region has an earthquake exceeding a magnitude of 5.5. The insurer would have to make the payout within weeks of such an event, providing the magnitude of the earthquake exceeds 5.5.



Comparing parametric vs. traditional insurance solutions

One of the main differences between traditional and parametric insurance is the speed of the payout. Traditional insurance claims might take a few months or even years to process, depending on the magnitude of the event. On the other hand, in the case of parametric insurance policies, payouts are usually given within weeks of the occurrence of the trigger, and when the value of the parameter crosses the threshold.

In parametric insurance, the amount of compensation is agreed upon based on the threshold value of the index. In the above example, the payout for an earthquake of magnitude 5.5 could be USD 5 million, and the magnitude of 6.5 and more could be USD 8 million, and so on. Whereas, in traditional insurance, the payout will be the actual losses sustained by company Y due to the earthquake. When natural catastrophes occur, it often becomes difficult to estimate the financial impact of the event, and hence parametric insurance can fill this gap.

Parametric insurance minimises basis risk. Basis risk is the risk exposure for the insured company, which happens when a catastrophic event occurs but does not reach the prescribed threshold. This results in the insured company suffering losses. Basis risk can be managed by a staggered payout structure, or by defining payouts for different threshold values, as the case may be. Traditional insurance policies have several exclusions, and conditions, often leaving the insured company with some amount of risk exposure.

Parametric insurance policies are usually customised based on several factors such as the region/location of the company, the kind of risk that the company is exposed to based on the risk, and several other factors that are likely to impact the business. Additionally, these tend to be multi-year contracts. Traditional insurance policies are usually standardised products, with minimal customisation, and tend to be annual contracts.

Mitigating climate risks with parametric insurance

Parametric insurance streamlines the insurance claims process, by linking the triggers and parameters with the payouts. Predefined thresholds and payouts help minimise the need for lengthy insurance investigations when it comes to claims processing. Weather catastrophes prompted by climate-related events can result in massive business disruptions. A clean and tidy claims processing can help businesses rebuild and recover to get back on their feet as fast as possible. While parametric insurance offers several benefits to weather climate-related disasters, businesses must seek insurers with strong data analytics capabilities and familiarity with regulatory compliance requirements in their region. Additionally, businesses should also conduct a cost-benefit analysis to understand the cost of premiums vs. the likelihood of catastrophes.

Artificial Intelligence (AI) and Machine Learning (ML) technologies in insurance offer hazard modelling for climate-related events, helping businesses and insurers arrive at better forecasts and predictions for triggering events and appropriate thresholds. With extreme weather events being predicted for 2024 and beyond, parametric insurance offers an innovative and direct solution to businesses for building climate resilience.

How can Infosys BPM help?

The robust Infosys BPM Insurance practice offers transformative insurance outsourcing solutions. We have partnered with over 45 insurers to curtail their operational expenditures strategically. Our innovative parametric insurance and reinsurance solutions help insurers and businesses increase resilience to climate change, resulting in improved disaster preparedness and risk tolerance.

For more information, contact infosysbpm@infosys.com

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