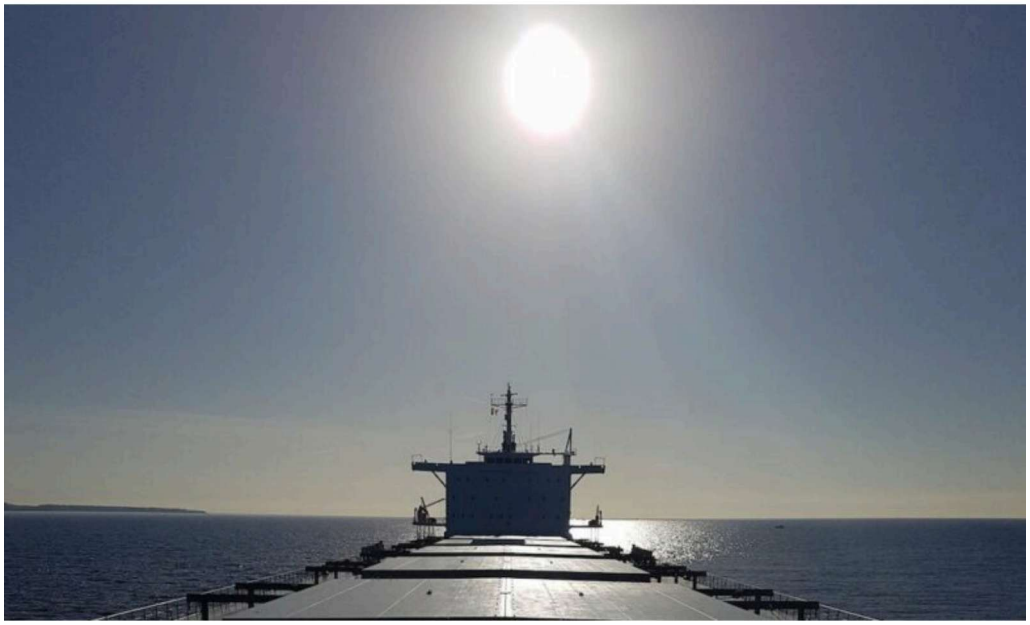
Contributions Environment Finance and Insurance Operations

Rising climate risks and the evolving role of marine insurance

Splash • December 2, 2024 1,037 3 minutes read



Robert Mackay from FDR Risk writes for Splash today.

Extreme weather events triggered by climate change are becoming more frequent and severe, reshaping operational risk and creating unprecedented challenges for shipowners and operators. The recent floods in Valencia, Spain, only served to refresh the urgency – if any were needed – of adapting to this new reality. In a single week, torrential rains submerged infrastructure, halted port operations, and caused widespread logistical delays, not to mention the huge toll it took on the local population. For the maritime sector, recent events such as this, as well as Hurricanes Milton and Helene in the USA, are no longer 'acts of god' but the norm; bringing into sharp focus the financial and operational vulnerabilities that climate instability brings.

The risk to maritime operators of climate impact is very much here today. Global temperatures have already exceeded critical thresholds, driving erratic conditions from hurricanes to heatwaves, and escalating the probability of disruption. For shipowners, these challenges come with significant costs, including vessel damage, delayed deliveries, and

unplanned re-routing. While traditional indemnity-based insurance remains indispensable, its limitations in addressing the speed and scale of modern risks are becoming increasingly apparent.

Parametric insurance de-risks climate's new normal

As the effects of climate change reap destruction, so the marine insurance market is starting to adapt. Unlike traditional insurance policies that require a lengthy assessment of actual losses, parametric insurance provides predefined payouts based on specific, measurable events such as wind speeds, rainfall thresholds, or wave heights. This rapid-response model is particularly valuable in the aftermath of extreme weather, enabling operators to secure funds quickly.

For example, when the city of Valencia experienced its catastrophic flooding, local businesses and shipping operators such as Valencia's Port, faced extensive damages that could take months to resolve through traditional claims processes. With parametric insurance, predefined triggers—such as verified rainfall exceeding agreed thresholds—would have enabled immediate payouts, accelerating recovery.

Building resilience

For shipowners, adapting to climate risks requires proactive engagement with emerging insurance solutions, particularly as climate-driven storms and typhoons become more frequent. Standard P&I reports indicate that such weather events now account for a 46% rise in weather-related disasters since 2000, often leading to complex, high-value claims related to cargo delays or damage.

This is especially true for smaller business models, where increased risks can heighten volatility. Parametric insurance provides a solution by offering revenue protection and stabilising cash flows during disruptions, enabling operators to avoid the protracted claims processes typical of traditional insurance.

Advanced technology also plays a pivotal role in the effectiveness of parametric insurance. Satellite imagery, weather data, and real-time

monitoring systems are used to define precise trigger points, reducing disputes and ensuring transparency. This data-driven approach not only enhances trust between insurers and policyholders but also demonstrates how thinking outside the box can drive resilience.

For instance, in the offshore renewable sector, parametric insurance provides a crucial safeguard against delays caused by adverse weather conditions. Offshore wind farms, particularly during their construction phases, are highly susceptible to extreme weather, with studies indicating that 20-30% of operational downtime can be attributed to adverse conditions. In these situations, parametric insurance is activated when independent weather data confirms that predefined thresholds—such as wind speeds or wave heights—have been exceeded. This triggers a swift payout, helping to cover the costs incurred due to project delays and ensuring the financial stability of the project.

Adapting to the evolving risk landscape requires innovative solutions, especially as climate change increasingly reshapes the maritime industry. Extreme weather events are no longer rare occurrences but recurring disruptions, highlighting the need for a rethinking of traditional insurance models. Parametric insurance, with its speed, transparency, and adaptability, offers a forward-looking solution to the growing complexities of climate-driven risks. While premium increases are likely, data analytics and digitisation are playing an increasingly vital role in marine insurance, enabling insurers to model potential risks with greater precision and better manage costs.

Investing in adaptable, forward-thinking insurance models not only provide critical financial protection, but also assures owners and operators that they are equipped to navigate future challenges with resilience and foresight.