Proprietary analysis key to active ILS management

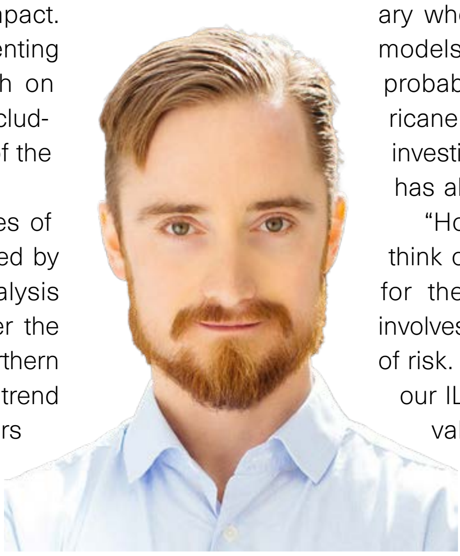
Interview with Jake Weber

The peak perils of hurricane and earthquake receive the most attention when catastrophe risk gets transferred in the insurance-linked securities (ILS) market. However, non-peak perils can contribute risk to ILS investments that may be difficult to quantify and easy to overlook. This is one reason why proprietary analysis is critical in this space.

"The recent wildfires in California and winter storms in Texas prove the exposure is real," highlights Jake Weber, Partner and Head of Analytics at Elementum Advisors, LLC. Noting the comprehensive nature of the firm's view of risk, "we consider each investment's exposure to any covered perils of consequence. When risk metrics for a transaction are presented to us that exclude the impact of non-peak perils, we perform due diligence to recalculate the metrics using our own assumptions, under which no catastrophe should show up by surprise."

He explains that the most commonly used catastrophe models have not yet evolved to the point where they directly contemplate the effects of the global warming trend, leaving each manager to depend on their internal analytics capabilities to quantify the impact. "Elementum has been actively implementing ways to incorporate the latest research on climate change into our view of risk, including carrying out our own investigations of the source data.

"We performed an analysis of decades of wildfire activity using information compiled by various government agencies. Our analysis showed a meaningful upward trend over the period analysed in the area burned in Northern California and the Pacific Northwest – a trend that was not contemplated by the builders of the market's most widely used wildfire model. Our firm's comprehensive view of risk for US wildfire is now based on a stochastic event catalogue, which we have augmented with additional simulated fires in order to reflect the heightened risk."



Proprietary views on risk

So, although all ILS market participants have access to risk metrics generated by the same catastrophe models, it is the responsibility of each investment manager to understand a model's underlying assumptions and to know how to interpret its results. Weber describes how Elementum performs work to validate how a model was built: "We make adjustments to a model's output when we can confidently quantify something that the model builders have not incorporated. In cases where the available catastrophe models leave a peril unmodelled, we develop our own method for probabilistically simulating losses that the peril could cause to ILS investments."

Weber goes on to acknowledge that the ILS market is opaque. Therefore, he believes in-house analytics capabilities are essential for an investment manager to be able to confidently quantify catastrophe risk. He elaborates: "A typical investment opportunity will be brought to the ILS market by an intermediary who has used sophisticated catastrophe models to estimate certain metrics, like the probability of default due to a covered hurricane. To the uninitiated, this might feel like investing in a world where the analytics work has already been carried out by an expert.

"However, dedicated ILS managers will think of those estimates as the starting point for their own quantitative analysis, which involves the development of a proprietary view of risk. Because Elementum actively manages our ILS portfolios in our drive to find relative value, the investment opportunities we consider must be analysed within a consistent framework. Harmonising a transaction's risk metrics to

Elementum's view is an important part of the investment process, providing a coherent foundation that can help us find profitable trades–and avoid losses."

Importance of active management

The perennial challenge for all investment managers is to find investments that generate the best risk-adjusted returns without simply buying-and-holding the market's flow of investment opportunities at the market's terms. This is also the case in the ILS market.

In Weber's view: "A new ILS manager would not need much expertise or discipline to put capital to work by passively holding any investment with the potential to generate a positive return during a catastrophe-free year. However, to truly know the relative value of each ILS transaction, a breadth of experience is needed to carry out the due diligence of independently analysing catastrophe risk. In addition, a sustained mindset of active yet disciplined management must be in place for managers to construct a balanced portfolio."

In view of this, Elementum aims to help solve challenges for both capital providers and transaction counterparties. Discussing the way the firm creates investment opportunities toward the goal of generating desirable expected returns, Weber focuses on Elementum's privately negotiated transactions: "We believe that our long-term relationships with certain counterparties have enabled us to source investments with more favourable terms and conditions than those generally presented to the broader ILS market."

In addition, the firm's use of relative-value investing enables the manager to adapt to changing circumstances. Weber comments: "Looking at the market dynamics that emerged as the 2021 Atlantic hurricane season was about to get underway, relative to other ILS investments, we saw a significant re-pricing of ILWs, which are investments whose payout would be triggered by industry-wide insurance claims. In our experience, a manager who assumed risk via ILWs would be agreeing to a less attractive risk/return trade-off than before. We reacted by dynamically tilting the construction of certain portfolios, using ILWs as relatively inexpensive hedges in order to cede a portion of the catastrophe risk and avoid potential losses."

Considering the role ILS plays in portfolios, Weber underscores the enduring value of ILS continues to be its ability to generate return streams which are largely independent of those generated by traditional asset classes: "As the global economy emerges from the effects of the pandemic, capital allocators are focused on the unprecedented challenge of identifying the sectors with the most pent-up demand but the fewest supply-chain headaches, all while forecasting the response of central bankers to unknown inflationary pressures.

"In our view, having an actively-managed ILS investment that seeks to generate attractive, risk-adjusted returns continues to be an important counterbalance to the other types of risk that can stress an investment portfolio, whether from old sources or new." ■

Jake Weber
Partner and Head of Analytics, Elementum Advisors

Jake Weber is Partner and Head of Analytics at Elementum Advisors, LLC. Jake is responsible for Elementum's view of risk, leading the firm's research on how to best quantify the impact of hurricanes, earthquakes, and other perils on catastrophe bonds and collateralised reinsurance investments. He also leads Elementum's work on how climate change affects the way catastrophe risk is modelled. Prior to the founding of Elementum, Jake was a member of the reinsurance and risk-linked investments team at Stark Investments. He started his career at Aon in 1999, working in catastrophe modelling, catastrophe bond securitisation, and catastrophe bond trading. Jake holds an MBA in Finance and Econometrics from the University of Chicago, a Diploma in Economics from the London School of Economics, and a BA in Economics from the University of Illinois.