

# PRA raises concerns around casualty reserving and exposure management. Praedicat can help. Here's how.

December 2020



## Summary of PRA letter. What's new?

In 2019 and 2020 the PRA increased their focus on understanding general insurance firms' approaches to emerging risk identification, reserving and exposure management practices relating to both natural and man-made catastrophe accumulations.

Following structured review work undertaken in 2020, the PRA published their "[Dear CRO](#)" letter on 13<sup>th</sup> November 2020 which summarized their market findings and insights:

- **Management of man-made catastrophe risk is less developed than that for property catastrophe** – The PRA have urged firms to develop appropriate exposure management frameworks to address improvements to data quality and availability, consider loss from emerging risks, potential for clash risk, and complementing existing traditional approaches using historical experience with a forward-looking exposure-based view of risk. Exposure management frameworks for non-natural-catastrophe risks should translate down to point-of-underwriting to support underwriting control.
- **Concerns around reserving adequacy and weakening of case reserves across portfolio remain salient** – especially for long-tail classes.
- **Uncertainty needs to be more significantly factored in when undertaking reserving, pricing and exposure and accumulation management activities** – the PRA have highlighted the importance of stress testing and back testing (where possible), to demonstrate that uncertainty is adequately considered in all reserving, pricing and exposure management activities. This is an area where they would like to see additional focus from firms.

CROs are required to address these items in their year-end reserving exercise, and when making plans for the 2021 underwriting year. In 2021 the PRA will continue oversight on the areas identified and will be looking for evidence of discussion and progress to address any deficiencies.

## About Praedicat

Praedicat is a liability risk modeling company that has developed a forward-looking exposure-based system to identify and quantify potential future latent casualty catastrophe risks in United States-exposed General Liability and D&O portfolios. Praedicat's framework is built upon a scalable approach to systematically identify emerging latent casualty risks and quantify the probability and severity of resulting litigation. Praedicat also profiles 100,000 global companies matched to emerging risks to facilitate portfolio exposure modeling and point-of-underwriting application of portfolio strategies.

## How can Praedicat help?

The market must now translate the PRA insights into appropriate business actions. From a casualty standpoint, there is much work to do and Praedicat can help!

Praedicat works with 25+ Global insurers and reinsurers, including 9 of the 10 largest US casualty insurers. We've worked closely with the industry to design and implement casualty risk and exposure management frameworks, integrate with casualty insurance workflows, and deliver actionable insights.

Praedicat have developed a matrix (Appendix 1) to help the market think practically about how to translate the PRAs "Dear CRO" insights into business actions and highlights ways in which firms can engage with Praedicat to achieve this.



# APPENDIX

The Appendix provides a detailed description of how Praedicat can help, addressing each of the PRA’s key issues raised.

Exposure Management Specific		
PRA Point Raised	What Needs to be Done (Casualty Focus)	How Praedicat Can Assist
Management of man-made catastrophe risk is less well developed than that for property catastrophe.	Identify materiality of casualty catastrophe risk associated with your firm’s book of business, and where in the book these exposures exist.	<p>Understanding existing latent casualty catastrophe risk: using Praedicat analytics (deterministic scenarios and/or probabilistic analytics) to identify in-force and legacy latent liability accumulations across your firm’s US GL and D&amp;O portfolios.</p> <p>Help your firm to place the materiality of Praedicat modelled risks in context of other risks you face. Consider appropriate actions for managing and monitoring these risks. Use this insight as a basis for building a holistic casualty exposure management framework.</p>
	Review tools and approaches to help identify, monitor and manage man-made (casualty) catastrophe risk – selections need to be appropriate for your firm’s books of business (in relation to materiality).	Set up educational sessions, trainings, and expert briefings. Design trial engagements with defined KPIs and dedicated teams to systematically review the application of Praedicat model outputs and software product-based analytics to your firm’s book of business.
	Develop a casualty exposure management framework containing procedures and processes around the use of these tools and approaches.	Present different ways in which Praedicat analytics can be used to identify, quantify, monitor and manage latent liability risk.
	Ensure that appropriate tools are used to address material risks faced by your firm and are appropriate for managing and monitoring risk in a consistent way, from firm-wide risk appetite setting down to per-risk point-of-underwriting.	Design use case-based engagement plans to support the development and systematic implementation of a holistic casualty exposure management framework, using Praedicat analytics as inputs.
Weaknesses have been identified in underlying casualty data.	Development of a market-wide data standard to facilitate consistent data capture for casualty risks.	Market-wide initiatives addressing minimum data standards for risks exposed to non-natural catastrophes are already underway. Praedicat are providing advice and input where requested.
	Improvement of in-house casualty data availability, accessibility and governance in the absence of a market-wide casualty data standard. Your firm can better understand what basic data are required in order to be able to run relevant models and develop a view of your casualty accumulation risk.	Praedicat can share our data input template. There are minimal inputs required to run the Praedicat models, and the majority of clients have access to the minimum data required to do this.
Emerging casualty risks are not adequately considered in business decision making.	Define a systematic and repeatable way of identifying potential casualty emerging risks and accumulations.	<p>Use Praedicat analytics to inform your firm’s emerging risk list for hazards which have the potential to produce losses resulting from litigation in the U.S.</p> <p>We have an emerging risk list with 250+ perils which we continuously update. Emerging risks can be defined from an economy-wide standpoint (without the need for firm data), and from a firm-specific standpoint using portfolio data (via a portfolio analysis).</p> <p>This approach is repeatable and allows your firm to prioritize emerging risk over time, whilst quantifying whether a risk is in fact important to the firms book of business, which can in turn inform appropriate management actions.</p>
	Create a framework for reviewing, escalating and actioning casualty emerging risks that could have material impact on your firm.	Compare your firm’s existing emerging risk watch list against the Praedicat ‘Emerging Interest, Emerging Damage and Emerging Litigation’ (EI/ED/EL) framework. After identifying material drivers of potential loss for their book of business through a portfolio analysis, firms can directly adopt this framework for reviewing, escalating and actioning latent casualty emerging risks.
	Regularly review and refresh this emerging risk list to prioritize and deprioritize risks over time where appropriate and in line with your firm’s defined framework.	<p>Implement the Praedicat EI/ED/EL Framework to automatically prioritize and deprioritize latent liability risks in line with defined criteria into the 3 actionable phases:</p> <ol style="list-style-type: none"> <li><b>Emerging Interest:</b> “time to measure” – be prepared to estimate limits exposed and other metrics, and think about your exposure.</li> <li><b>Emerging Damage:</b> “time to act” – develop strategies to mitigate and manage the risk.</li> <li><b>Emerging Litigation:</b> “time to defend” – monitoring case emergence and leverage risk insights to defend claims.</li> </ol> <p>Work with firms to identify appropriate management actions on the basis of their exposure.</p>
Casualty risk appetites need to be defined, set and managed against.	Casualty catastrophe risk appetites need to be defined, set and managed against.	Run a portfolio analysis in conjunction with the development of an emerging risk framework, to help your firm identify material accumulations and prioritize and quantify these to define appropriate risk appetites.

<sup>1</sup> Praedicat have an emerging risk framework which categorizes all of our 250+ agents into actionable ‘phases’ from 1 to 3. Each one of these phases has a set of associated business actions that could be taken by firms to manage their risk appropriately. The first phase, Emerging Interest (EI), is the “time to measure,” to identify the risks and be prepared to estimate limits exposed and other metrics. The last phase, Emerging Litigation (EL), is the “time to defend,” when case emergence is monitored, experts are identified, and scientific and legal arguments are developed. The middle phase, Emerging Damage (ED), is where opportunities are made. It is the “time to act,” to develop underwriting strategies, to exclude and write-back, and to manage and cede aggregations.

Exposure Management Specific		
PRA Point Raised	What Needs to be Done (Casualty Focus)	How Praedicat Can Assist
Underwriting control weaknesses identified for casualty risks.	Casualty catastrophe risk appetites should then translate from portfolio level appetites down to account underwriting, and should be measurable in a consistent way across teams and use cases.	Run a portfolio analysis in the Praedicat software to drill-down into risk drivers from aggregated firm level down to individual account underwriting level. This provides a consistent view of risk across all use cases, facilitating risk management and setting of risk appetites at all levels.
	Underwriting authorities put in place to try to mitigate exposure and remain within defined risk appetite thresholds at point of underwriting.	Run a marginal contribution analysis within the Praedicat software to appreciate the impact of writing an individual account on specific terms and conditions to the overall portfolio loss (requires a portfolio analysis to be run).  This can be performed dynamically, allowing underwriters to apply different policy terms to arrive at a representation of the risk that is within tolerances.
	Where accumulations are found to exist, implementing appropriate risk transfer to mitigate risk where needed.	Use the portfolio analysis to identify where in your firm's portfolio there may be risk that is found to breach defined appetites. Build strategies out to manage risk appetite breaches like this.  Appropriate cover can be sought from specialist markets, which improves contract certainty and helps address issues around the potential for RI not responding as expected.
	Future considerations: business planning, prospecting new business, re-underwriting a book of business, underwriting new latent casualty catastrophe insurance and reinsurance products.	Input Praedicat analytics to inform future business planning, to consider, for example, the risk associated with prospecting new business in new industries, designing new and innovative casualty insurance and reinsurance products, or looking at risk associated with changing the composition of a firms book of business.
Potential cross line and cross class clash risk is not adequately considered.	Start with within-line clash potential – focusing on GL exposure across different industries or companies that perform different business activities, where a link may well not be immediately obvious.  Develop an appreciation for systemic risk and how that manifests.	Employ Praedicat's GL deterministic scenarios and probabilistic models to quantify the impact from cross-industry and cross-company clash. This can give a clear indication of where accumulations might exist to a single hazard that is used in multiple settings in sometimes disparate industries, or across companies performing very different business.
	Continue to investigate cross-line clash (within casualty).	Praedicat have recently developed a suite of GL and D&O cross-line clash scenarios as part of the <a href="#">Lloyd's Lab Cohort 5</a> , which your portfolio can be run against to start to appreciate within-class cross-line clash potential for these lines.

Reserving Specific		
PRA Point Raised	What Needs to be Done (Casualty Focus)	How Praedicat Can Assist
Address bias in reserve estimates and weakening of case reserves across portfolios.	Provide appropriate justification for reserving assumptions made. Consider alternative appropriate assumptions.	Use of Praedicat analytics to consider 'blind' spots in casualty reserving. By understanding potential casualty catastrophes by named peril on an ultimate basis, loads can be explicitly accounted for both for risks where claims have already emerged (e.g. COVID-19 or PFAS) and where claims have yet to occur (e.g. nanotechnology).
Inadequate claims inflation allowance for long-tail classes in reserves.	Understand and quantify latency periods associated with hazards with potential to drive mass litigation events in the future. Quantify potential claims inflation associated with loss latency.	Praedicat simulates a robust set of latency patterns for a portfolio (when claims may arise) which can help inform assumptions for loss development factors and create more informed assumptions around claims inflation over time, in particular for those highly latent risks.
Not enough consideration for latency in claims within reserves.	Create a quantitative input to reserves (and pricing), which considers losses emanating from latent liability claims impacting your firm's book. Have an understanding of legacy risk and how this impacts reserves.	Run a Praedicat portfolio analysis as an exposure-based method to complement historical approaches, to get an independent assessment of the latency inherent in your firm's portfolio.  Upload all your historical policy year portfolios in Praedicat's tool to output complementary loss development patterns. Praedicat's model outputs implied incurred loss development patterns to help not underestimate the latency present in the portfolio and uncover areas to consider for improvement in existing reserves.
Firms are typically slow to react to bad news in their reserving.	Remain up to date with any reserve deterioration which might occur in light of an event unfolding. Develop a process to address reserving inadequacies as they emerge.	Praedicat develops rapid response loss quantification when claims arise. COVID-19 liability is an example. Praedicat can help you understand how losses incurred relate to projected ultimate losses. Help close the gap on actual vs expected analyses.  Track the actual litigation arising in the Praedicat Litigation Tracker, and have access to a suite of scenarios which helps you quantify ultimate portfolio losses quickly after events occur (or even before it hits your portfolio).
Uncertainty around RI adequacy and potential failure to respond is to be considered within reserves, where it currently isn't.	Understand existing weaknesses of current reinsurance terms, and where they may produce contract uncertainty if an event does occur to factor into reserves.	Use Praedicat's loss model to quantify casualty accumulation exposures both net and gross of reinsurance. Consider contract uncertainty around the definition of named perils and occurrences and stress test assumptions. Praedicat's deep knowledge of the underlying risk and how it might manifest can help in understanding contract uncertainty and stress testing how reinsurance might respond.

General		
PRA Point Raised	What Needs to be Done (Casualty Focus)	How Praedicat Can Assist
Approaches to man-made catastrophe risk management to also consider forward-looking exposure-based considerations.	Supplementing using historical experience to quantify casualty loss with adoption of methodologies that consider forward-looking future loss potential. Assessing how future losses could impact a regulated firm's current and past book of business (where written on the occurrence form).	Praedicat's modelled losses consider the potential for economic and insured loss from future mass litigation events, which might impact policies written both now and in the past where there is still exposure. Praedicat's model is focused on emerging risk and not what has happened in the past as a predictor of future litigation. Praedicat's approach leverages the world's scientific community to identify where the next litigation might emerge and produce loss in an insurer's portfolio.  Running a portfolio analysis using the Praedicat models provides both forward-looking and exposure-based analytics on a firm's book of business, to inform risk management strategy at any granularity.
Uncertainty around reserving, pricing and exposure and accumulation management activities for non-natural catastrophe perils isn't currently adequately considered.	Quantify uncertainty using stress testing and back testing. Apply an appropriate and justifiable uncertainty metric to reserving, pricing, and exposure and accumulation management metrics.	Understanding and quantifying uncertainty requires having access to robust data to help you quantify loss events your portfolio might be subject to. Having a well-rounded approach to understanding casualty accumulation risk is critical. In addition to improving internal models and assumptions, Praedicat's model can be used to better understand the uncertainty by quantifying those low frequency, high severity events. Praedicat has a suite of scenarios in addition to its probabilistic loss estimates to help you stress test your portfolio and get a better handle on the uncertainty, which could be used to inform loss reserve ranges estimated by actuaries and accumulation tolerances by exposure management. These scenarios can also be input to your capital models.
Boards need to show evidence of challenge relating to review of reserving assumptions, loss ratios, and consideration of uncertainty.	Produce appropriate Board MI with quantitative reasoning for reserving assumptions made. Demonstrate Board level feedback and challenge on uncertainty metrics and loadings.	Praedicat analytics can be fed into Board Management Information packs to help provide quantitative data driven justification for reserving and exposure management decisions. These can be provided and studied over time to track the performance of the portfolio and reserves.