

CAPCO

MANAGING UNDERWRITING PORTFOLIO EXPOSURE

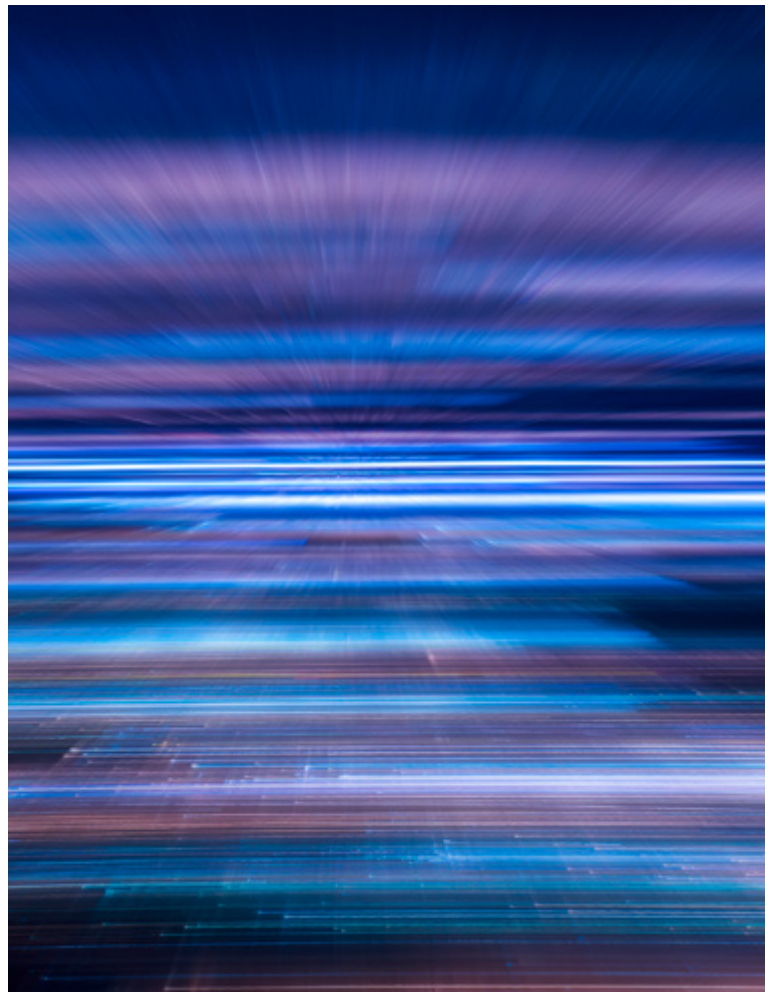


INTRODUCTION

Exposure management remains a core discipline for all insurers in order to determine their portfolio underwriting strategy and has implications on pricing, solvency capital adequacy and capital management. The world is increasingly become more complex with both an increase in frequency and severity of natural catastrophe perils and man-made events, which makes the ability of insurers to rapidly assess their exposure more challenging due to the limitations of the current operating model.

Insurers are increasingly prioritising the need to implement automation and rigorous data models across their exposure management business workflows, and recent events such as COVID-19 and the war in Ukraine are a reminder of the need for timely and accurate exposure data to manage losses and thrive in times of uncertainty. A mature data capability is increasingly being identified as a necessary means to improve loss and expense ratios through empowering timely, informed underwriting as well as, removing time and cost inefficiencies in business processes¹.

In this article, we look at the specific challenges facing the industry around exposure data, and how the latest innovations in data capabilities can help organisations transition to more intelligent and value-driven ways of working.



DATA CHALLENGES IN EXPOSURE MANAGEMENT

When it comes to exposure management, insurers face a number of data-related challenges.

Inconsistent Data Format

Handling multiple different clients with a wide range of needs leads to incoming exposure data being provided in a vast spectrum of formats and configurations. This presents considerable challenge in being able to accurately import and aggregate new risks into the exposure models due to the complexity of the data, as well as the variability. Therefore, a substantial amount of manual effort is required in order to write business.

Manual Effort

Within the exposure management lifecycle, there are multiple points where significant manual effort and data entry tasks act as constraints in both accuracy and efficiency for critical business processes². The multiple manual entry data points throughout the process increases the scope for human error to diminish the quality of the data. Another key challenge tied to this is that it is often difficult to gauge the accuracy of data being input into the exposure models and so some level of error is assumed, though the quantity is not known. A knock-on effect of these manual input errors is the effort required to remediate and correct them, which deteriorates business productivity and slows turnaround times.

Lengthy Turn-Around Times

In the business of writing risks and competing for business from brokers, the time taken to return with a quote for a request from a broker can have a significant impact on being successful in securing policies³. This means that there is notable value to be gained as decreasing this time lag will increase the prospects of winning business and writing informed and timely policies. Moreover, underwriters are being pushed to move from historic decision making, to forecasting which require predictive capabilities. This can only be done by being able to evaluate the risk of the book in real-time therefore, decreasing turnaround time from receiving risk data to modelling can deliver significant value.

Operational Costs

Often, due to the amount of manual effort required, the tasks of cleansing and moving data through business processes are outsourced to third party providers. Typically, the operational costs involved can be inflexible as well as significant due to the size and scope of the business needs. This model is accordingly often difficult to scale and can leave the insurer with an added risk burden if volumes or load differ materially throughout the year⁴. These cleansing and modelling costs increase the operating expenses for each risk that is written, resulting in each policy being less profitable and thus impacting the bottom line.

Distributed and Incomplete Data Model

Where data is cleansed and modelled externally, to optimise for cost and time, only business critical data elements are captured and imported. Risks may be sent from the broker with up to 1000 data points on a given risk; however, due to this necessary optimisation and prioritisation, only a small portion are captured. It is this reduced data set that then makes up the exposure models that inform pricing. From an underwriting perspective, these other data elements would have great value, as the exposure models would be more complete. It is also important to note that these data elements are often valuable across multiple lines of business. The benefit of capturing these data items is twofold. Firstly, there are data points on a given risk, meaning that the underwriter is better informed and empowered to price competitively. Secondly, this data set on all risks can be aggregated to form an exposure model across lines of business, allowing for exposure data/knowledge-sharing throughout the business and yielding a much more complete view on business exposure as a whole.

HOW TO INNOVATE

What then are the next steps in terms of enhancement and innovation around exposure management systems and processes?

Standardised Data Model

Due to the way the business is structured, it is common for data across the organisation to be siloed and hence difficult to easily transfer, merge and transform. Defining a desired data model gives a much greater degree of data consistency and a uniformity that allows for easy integration, thereby unlocking the potential to run analytics across multiple data assets rather than individually in a distributed architecture. This also lays the building blocks for being able to innovate and release new products far quicker, as the data model provides pliability to manipulate data easily.

Training to Improve Data Quality at Source

The priority of underwriters is often to rapidly respond to market demands, which in turn can lead to less of a priority being placed on ensuring that data is complete and accurate, with implications for downstream exposure reporting. Exposure reporting teams are left to make assumptions in order to address data quality issues, leading to less accurate results and a delay in reporting. Firms can help to improve data quality at source by educating underwriters on the importance of the data being captured and the ramifications of failing to capture critical data elements.

Data Quality Reporting

Reporting on process points offers pulse checks and metrics on workflow as data passes through the business. This helps surface any bottle necks and identify areas of focus for future development in terms of removing inefficiencies and increasing value. Data accuracy via KPI reporting allows the data and operational teams to understand the validity of the data and assures end users of its integrity. These reports can be visualised and customised, so that the maximum amount of insight is delivered in the shortest space of time.

Automation Driven Data Cleansing

Banks and other industries are utilising AI to automate manual tasks, and insurers can benefit from applying AI to incoming data spanning an array of different formats to structure into the target state with minimal human touchpoints. This greatly

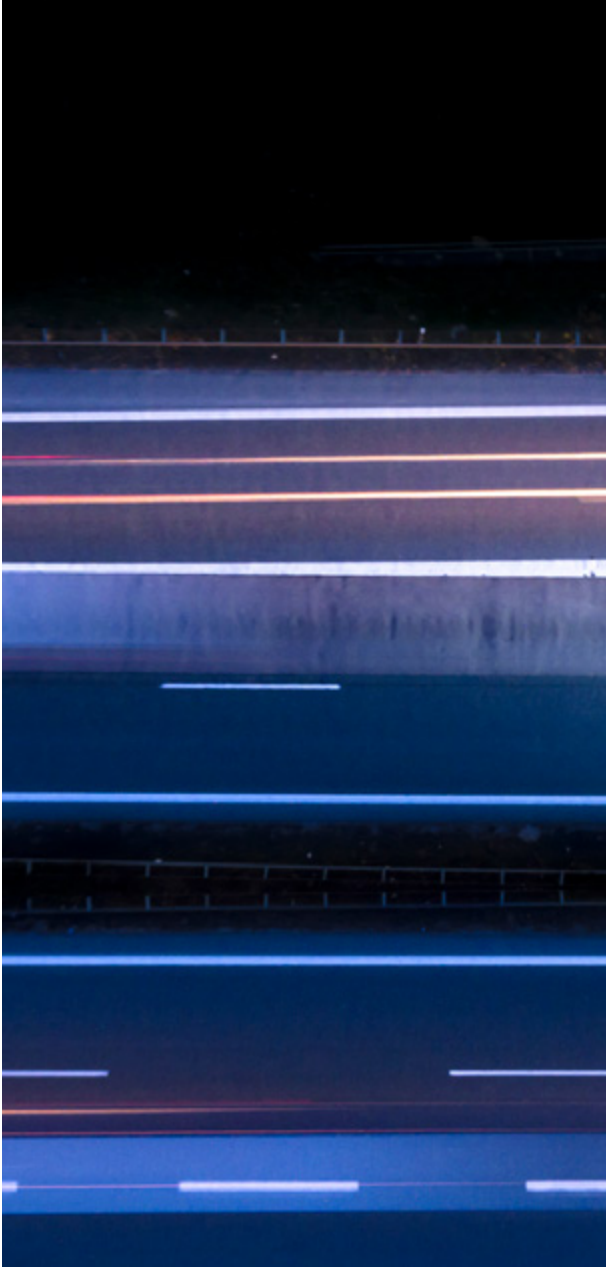
reduces the amount of manual effort involved. This technology allows cleansing times of data to be greatly reduced by orders of magnitude, allowing for rapid exposure data importing⁵. This technology implemented to its full potential promises to reduce operating costs by up to 50%⁶ and increases the margin on each risk, helping to improve the profitability of new business. Minimising the number of human interactions with the data also allows mitigation of human error and less time spent on correction/remediation, as well as assuring the accuracy of data imported to exposure models.

Automated ETL Data Flow

The required data will often change hands through several parties before being imported into the risk models. This creates workflow inefficiencies in the shape of capacity constraints and dependencies within end-to-end process for each party, as well as restrictions arising from their respective working hours. By automating the movement of data through the system, the time to value is decreased as the transfer of data in an automated event-driven architecture decouples the process from human constraints. It also means that the data would need to change hands fewer times, increasing processing speed and aggregating the data into exposure models much sooner, helping to realise the potential for real time exposure reporting.

Migrating to Cloud

Containerising and running AI technology on the cloud means that the capacity to process and import data can scale with workload (which, as mentioned, is uncertain and difficult to predict). This gives added flexibility, as the processing power can scale elastically with business needs. Storing and structuring data in the cloud allows for a more flexible and scalable data model, meaning that the architecture can more easily be reconfigured, as well as integrating well with other tooling of choice, whether it be on-premise systems or further cloud services. Another advantage is the security and regulatory safety that comes with the service provided which is helpful in an environment of high pressure from a compliance perspective.



CONCLUSION

The insurance industry is being pushed towards becoming a more intelligent and agile enterprise as the pace of innovation will become a key distinguisher in the competitor landscape. Through leveraging a robust data model, deliberate cloud adoption and implementing automation throughout the policy writing lifecycle, the underwriter's ability will be significantly augmented and enable them to tap into previously unrealised potential value. Real-time analytics and underwriting speed will become essential to keep up with increasing market expectation, move away from a "one size fits all" policy process, and instead enable a highly customised, yet profitable experience.

REFERENCES

1. *Transforming insurance operations via Master Data Management*. **DeGregor, Dennis and Faley, Bill**. s.l. : InsurTechDigital, 2021, Vols. <https://insurtechdigital.com/technology-and-ai/transforming-insurance-operations-master-data-management>.
2. **Wiser, Steve**. Manual Processes: 4 Big Dangers. www.propertycasualty360.com. [Online] PropertyCasualty360, 2014.
3. **Guiding Metrics**. The Insurance Industry's 18 Most Critical Metrics. guidingmetrics.com. [Online] Guiding Metrics.
4. **Winkler, Dennis**. *Insurance Outsourcing Contracts Are Changing - It's Time to Review Before You Review*. s.l. : ISG, 2018.
5. **Cariou, Bertrand**. New AI-driven features in Dataprep enhance the wrangling experience. cloud.google.com. [Online] Google Inc., April 2020.
6. **Winkler, Dennis**. *Insurance Outsourcing Contracts Are Changing - It's Time to Review Before You Review*. s.l. : ISG, 2018

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