Emerging Risks | Pandemics
COVID-19 will shape the future of underwriting and pricing for commercial liability policies
Karl Canty and Varun Balutia March 2021

The COVID-19 pandemic and its economic effects have resulted in significant insurance impacts. The General Insurance Research Committee (GIRC) of the Society of Actuaries (SOA) put forth a call for essays exploring the potential effects on commercial liability insurance. Some questions that were of interest to the committee included pricing, risk mitigation and anticipating issues associated with liability insurance coverage. The committee selected this essay, “Evolving Trends in Commercial Liability Insurance,” submitted by Karl Canty and Varun Balutia of EXL, and awarded them a prize of $1,000. The GIRC congratulates the authors and is happy to publish the winning essay on The Actuary website.

In June 2020, Princess Cruise Lines came under legal attack after multiple passengers sued the company for allegedly not taking appropriate action to screen passengers for COVID-19 during the boarding process. Similarly, lawsuits were filed against Carnival Cruises alleging negligence with respect to the health and safety of its passengers. While cruise lines have
been among the pandemic’s most impacted industries in terms of exposure to liability claims, their respective insurers also have been hard-pressed to respond to a highly dynamic need for coverage.

As the pandemic response continues to evolve across industries, carriers are struggling to develop new and innovative underwriting and pricing approaches for general liability coverage arising from a pandemic. There is an opportunity to leverage advanced analytics and create novel solutions for providing protection while also remaining profitable (and solvent).

Lingering Uncertainty

Liability claims are arising out of COVID-19, but their settlement process has to go through a complex web of legislative and jurisdictive framework, making the potential financial impact on businesses and insurers uncertain. As an emergency response to the situation, the Public Readiness and Emergency Preparedness (PREP) and the Coronavirus Aid, Relief and Economic Security (CARES) Acts have provided certain essential businesses—health care providers, manufacturers and distributors of personal protective equipment (PPE), and so on—immunity from tort to a large extent. However, these legislatures also have recognized exceptions of “willful misconduct and gross negligence.” This implies the liability exposures arising from, say, directors and officers (D&O) coverages are still possible even for these businesses. General liability exposures for other “nonessential” businesses currently do not have even the basic immunity.

Then, there are other sources of uncertainty related to liability. For example, if a business premise is contracted out to a third-party sanitization solutions entity and there is a virus outbreak, do both parties bear some portion of the liability burden? If a business is held liable primarily, will it be able to recover the damages from third parties (i.e., from the sanitization entity in the previous example)? Similarly, tracing the virus spread to a single source would be very difficult in the absence of development and widespread use of contact tracing technology.

Due to these considerations, the fate of the policies in force is highly uncertain, and it is difficult to conclude much about the potential claims arising and their settlement. However, there are potential implications for underwriting and pricing for future commercial liability policies, which can be predicted and analyzed further. It is important to note that legal proceedings currently being filed along with potential state and federal legislation also will weigh heavily on these matters and will, unfortunately, add to the complexity until resolved.

Key Stakeholders and Their Response

Insurers are likely to have a varied response over different time horizons. In the short to medium term, there is not enough data available for actuaries to develop accurate risk pricing models, in particular as it relates to complex scenarios—like providing protection
from third-party liability arising from virus infections in business premises. Additionally, the legislative framework will evolve over time, providing a more concrete base for insuring the risk.

What we see in the marketplace is a tentative approach—one where conservatism and experience are helping to navigate the uncertainty. Once more data is available and assumptions are firm, it may take a further six to 12 months as carriers race to complete thorough product development cycles. The leading edge of this race will be won by carriers that are proactive and have rapid responses, flexible operating models and associated support to deliver product enhancements quickly.

There is also a draft discussion document by the U.S. government on a Pandemic Risk Reinsurance Program. It discusses that the Treasury Department would act as a reinsurer with a cap on its exposure, selling coverage to primary insurers that provide business interruption coverage from risks including pandemic. In the future, the U.S. federal government could take a similar approach for commercial liability coverages as well.

Communicable disease exclusions have been common practice since the 2014 U.S. Ebola outbreak. However, carriers may still be liable to provide legal defense to the insureds, in cases where litigation is filed against the policyholder. This is likely to increase the loss adjustment expense (LAE) of which legal costs are material and an increasing proportion of indemnity and subsequent reserve considerations.

In the long term, however, some insurers will see an opportunity to create value by providing communicable disease coverage products as part of general liability protection. This may also come as a response to consumer expectations of buying comprehensive products or due to future regulatory requirements of mandatory coverages. Whatever the initial driver is, it is hard to deny that first-mover advantage will be strong, with carriers that can rapidly deliver COVID-like disease liability coverage first in a position to dominate the marketplace. Given the nature of these coverages, and the predominant social, legal and financial concerns facing businesses in 2021, the demand appetite for sturdy risk mitigation in this space will be historically strong.

Now, the flip side of this argument is that the additional capital required to finance the risk may dampen carrier enthusiasm to issue coverage. The risk financing can come from the capital markets in an alternative form (e.g., that of a virus bond, similar to a catastrophe bond), but ultimately, the profitability of such products may remain laden with untenable uncertainty for quite some time.

**Underwriting**

The underwriting factors traditionally used in commercial liability insurance can be classified into three broad categories:

1. Type of business
2. Management efficiency

3. Related to the physical premise

For the additional coverage for virus protection, additional underwriting factors also will need to be considered for all three categories.

The biggest factor varying by type of business could be the “time spent” by customers on the premises rather than just the footfall. As per a Centers for Disease Control and Prevention (CDC) study, the probability of getting infected by the virus is directly proportional to the time spent in contact with an infected person. This means a much higher factor for a movie theater than, say, a grocery store.

Businesses that are able to leverage technology to track and reduce the amount of time customers spend in person at their establishments will be able to lower the risk factors. For example, a mobile app that automatically tracks the amount of time spent by a customer inside a grocery store and nudges them to check out within 15 minutes seems like a viable solution in near future. The presence of on-site personal protective equipment (PPE), hand sanitizer and so on are some of the additional factors related to the ability to lower the risk on physical premises. Finally, risk mitigation also depends on management’s ability to implement robust policies and practices to check the spread of the virus. Some of the questions that can help determine this are:

- How often are employees tested for virus infections?
- How rigorously are unwell employees encouraged to take time off?
- What practices are enforced to ensure social distancing on the premises?
- What mechanism is in place to track and alert customers when a spread of the virus is discovered?

Pricing

In a letter to the U.S. House Committee on Financial Services, the American Academy of Actuaries (AAA) argued that a federal insurance program similar to the National Flood Insurance Program (NFIP) or Terrorism Risk Insurance Act (TRIA) is best suited to provide coverage for business interruption losses from a pandemic. Reasons cited include:

- Difficulty in pricing the risk
  - No clear maximum limit
  - Very infrequent
- Difficulty to spread the costs over a pool of policyholders due to the widespread nature of such events

AAA summarized the challenge: “The commercial insurance model does not work well for events like a pandemic when the potential cost is large with no clear maximum and occurs very infrequently.”

However, the solution to these modeling-related challenges could be found in another existing product: catastrophe (CAT) insurance. Since an epidemic or pandemic is a disaster caused by a “natural” phenomenon, the associated risk follows a pattern similar to risk associated with other natural disasters. The insurance product offering could be similar to the protection offered for indemnifying losses from other natural events like CAT insurance property, crop insurance and so on. Learnings from CAT models, combined with advancement in epidemiology modeling techniques, could be leveraged to understand the risk distributions and tails better.

In the short to medium term, while the more complex models evolve, the gap also could be filled by a parametric insurance product, which has been serving the gaps in the market not covered by traditional insurance products. Parametric insurance, instead of indemnifying actual loss, pays out based on a predefined formula triggered by an event. The payout amount is based on the magnitude of the event rather than the magnitude of the losses suffered. Therefore, these models can help take some of the uncertainties away (e.g., by providing an upper limit).

**Role of Data and Analytics**

With the advancements of technologies in big data, advanced analytics and artificial intelligence, underwriting and pricing decisions are increasingly becoming data-driven, and communicable disease protection will be no exception. The data-driven tools can supplement the human decision-making related to risk—such as selection, avoidance, transfer or limiting—and their successful adoption could have a direct impact on the levels of loss ratios.

The ability to quickly simulate various “what-if” scenarios can help an underwriter quantify the risks and aid in decision-making. Similarly, for pricing the risk correctly, stochastic models will need to be developed—combined with epidemiological modeling techniques—to better understand how losses flow through insurance structures, such as layers of retentions and limits.

**Conclusion**

The ability of an insurance carrier to provide pandemic risk coverage in a commercial liability policy depends on a number of factors—market demand, regulatory requirements, government response, legislation, data availability, modeling capabilities and risk appetite, to list a few. While a lot of these are unknown and somewhat outside of the direct control of an individual organization, developing the ability to model the risk early on would provide an edge over the competition when such a product becomes viable in the future.

**Karl Canty** is vice president of Life, Annuities and Group Analytics for EXL Service. **Varun Balutia** is an analytics engagement manager at EXL Service.  
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