PCS Information Bulletin #2: COVID-19 Review

Due to continued client demand, PCS has decided to publish further bulletins regarding COVID-19. This report is **for information purposes only** and **does not** constitute the designation of a PCS event. We have decided to provide this report simply to help the market understand the COVID-19 situation and to provide access to some of the resources our team uses daily for intelligence on this event. The information below comes from public sources.

Topics covered in this bulletin: Update from the U.S. property market on claims issues, developments on the treatment of business interruption, reporting disparities among COVID-19 data sources, "silent pandemic," cyber threat activity, marine updates

U.S. Property Insurance Industry Feedback and Claims Issues

While the COVID-19 situation **has not been designated a PCS catastrophe event,** our team remains in contact with insurers and other market sources regarding potential claims activity related to the situation. While some companies have reported to have received some influx of claims activity, policy conditions and exclusions have been a factor in mitigating losses thus far. We expect that insurers may continue to receive loss reports, particularly on commercial polices for business interruption (BI) related issues. Policy coverages, endorsements, conditions, and exclusions vary widely to which we will continue to remain in contact with our sources for relevant information regarding any action by state Departments of Insurance and legal cases which may involve BI, physical damage (PD) and COVID-19.

Business Interruption Developments

New Jersey Bill A-3844 has been proposed which would provide an allowance for BI losses due to COVID-19 for recovery of insured losses. The bill would apply to New Jersey businesses with less than 100 eligible employees. Content of the bill indicates that every insurance policy for loss or damage to property that includes business interruption with an effective date of March 9, 2020 and forward should be determined to include coverage for BI due to global virus transmission or pandemic. The proposal was tabled after industry trade groups agreed to develop an alternative and voluntary approach to help small business policyholders cover their losses.

Additionally, a restaurant in the French Quarter of New Orleans, Louisiana, the Oceana Grill, has asked a state Louisiana court to confirm that its policy would cover lost revenue due to civil-authority actions with coronavirus restrictions.

Regarding BI coverage questions, a recent article from the Independent Insurance Agents & Brokers of America performs a deep dive into policy language regarding policy wordings, coverage, conditions and exclusions pertaining to claims involving COVID-19.

Additional details regarding these cases and reports are available within the following links:

New Jersey Bill A-3844

Restaurant Suit Tests Business Interruption Insurance for Coronavirus Shutdowns

Independent Insurance Agents & Brokers of America COVID-19 and Business Income

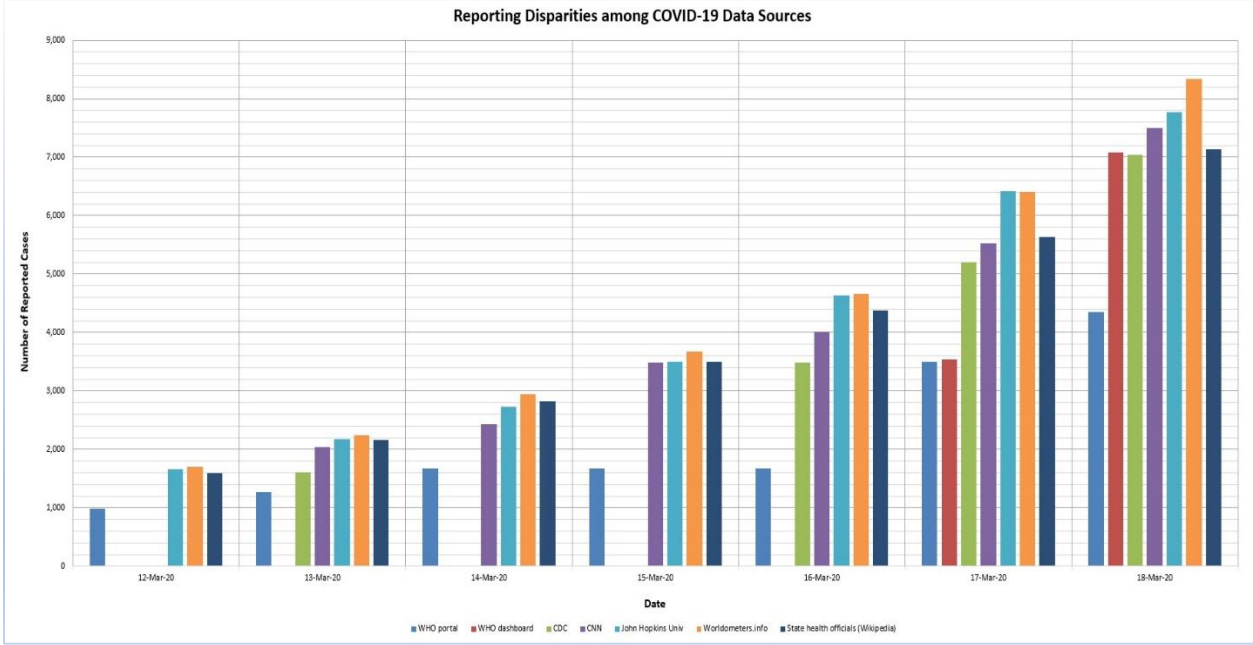
Industry Losses for the Contingency Market

It's still far too early to forecast an industry loss for the contingency market effectively, particularly if the Olympics would contribute significantly to that total. After all, there is still time, as well as a wide range of alternatives before one has to contemplate full cancelations and limits losses for events around the world and programs around the market.

Swiss Re released an industry loss range of US$3.7-6.3 billion according to news reports. Elsewhere in the global reinsurance market, clients have suggested a preliminary range of US$1-3 billion. In either case, it's important to remember just how early we are in the cycle. Many factors could ultimately impact the contingency market, both broadly and on a case-by-case basis.

Reporting Disparities among COVID-19 Data Sources

US reported cases



1. The most up-to-date case counts will come from states; CDC officials have said
2. CNN's tally relies on state totals and won't always match the CDC's count
3. John's Hopkins dashboard thus far has been found to update several times a day
https://coronavirus.jhu.edu/map.html
4. Worldometers.info – web scraping took -
https://www.worldometers.info/coronavirus/country/us/

Note: Since March 17, 2020, the WHO has provided different estimates in its daily situation reports than it did through the WHO portal. There is a risk that they report on different timeframes and may require separate data entry (although there could be other reasons).

PCS has kept track of reported U.S. cases from several sources as a way to help the market understand any basis risk or reporting agency risk issues that could come from the use of pandemic parametric triggers in the future (you can find a good definition of "parametric" at https://www.artemis.bm/library/what-is-parametric-insurance/). Historically, the parametric market for pandemics has been relatively small, and the WHO has been the standard for reporting such information as cases and fatalities.

In reviewing reported confirmed cases of COVID-19, we have found a disparity among the different sources of authoritative data. Initially, we focused on the delta between the WHO and the CDC. At the beginning of the week, it seemed as though the disparity was due primarily to publishing cycles, with the WHO updating in the morning and the CDC at noon EDT. Throughout the week, though, we saw the numbers diverge.

Other issues we observed:

- The WHO number for reported U.S. cases stayed the same from March 14-16, 2020. The data appears to have been updated on a Saturday and stayed static through Monday, which may defy expectations of a weekend update and lack of update on a Monday. The reason for the lack of a Monday update could be because data didn't flow through over the weekend to make a morning update possible.
- Starting March 16, 2020, there has been a sizeable difference between WHO situation report data and WHO portal data, with the first day's published WHO estimate 50 percent of that published by the CDC.
- Given that the CDC has a target publishing time of noon EDT, the difference could be from publishing timeframes, where CNN has more flexibility. CNN can also draw from a wider range of data sources and routinely claims to pull data from state and local agencies, as well as the CDC.
- PCS found an additional source of COVID-19 reporting: worldometers.info. The site appears to update frequently based on tools that scrape the web for related information and provide automatic updates. While this may be the most up-to-date source of COVID-19, PCS suggests caution in relying on it without deeper investigation. A review of the sources used vary widely and include both news stories and Twitter updates. Such information may either be the most current and timely available but could also include unreliable information from questionable sources. While data from Worldometers may not be effective as a trigger in risk-transfer transactions because of the inherent unreliability of underlying data sources, it could serve as a useful monitoring tool between updates. PCS plans to review this tool further and will provide additional information in our next bulletin, if relevant.
- Data published by Johns Hopkins has tended to exceed CNN data by 10-20 percent every day. The John Hopkins GitHub data repository lists multiple data sources at a global level. Among those listed are: WHO, DX Doctor China, Breaking News Organization BNO Netherlands, CDC organization from various countries and various Department of health services. Full list of

sources available here: [John Hopkins COVID-19 data sources]. As an aggregator of varied data sources, we suggest the same caution be used with this data as described above.
- PCS has also found that the Wikipedia page, "2020 coronavirus pandemic in the United States" is robust and frequently updated. However, we suggest the same caution for this site that we do for Worldometers.

The differences among data source pose problems for parametric pandemic triggers. Key issues to keep in mind:

- Disputes could arise because of differences between the WHO and CDC (or other credible sources), which could lead to questions about trigger failure
- In close situations, the differences in reporting between WHO situation reports and the WHO portal could lead to disagreement or ambiguity.
- Reporting cycles need to be monitored. The CDC states that it updates its numbers at noon EDT Monday through Friday. The WHO appears to update in the morning. Other sources may be on different cycles – or may just report opportunistically (news sources, in particular).
- Methodologies vary. Review any information provided by data sources and try to contact them for clarification of possible (may not always be possible). New sources become difficult in this regard. They may provide some explanation of how they've arrived at certain estimates and show where they got the data, but rarely with the specificity needed during a traditional property-catastrophe due diligence exercise.
- Additional sources of information (such as Wikipedia and Worldometers) may be more effective as monitoring tools rather than in triggers for risk-transfer transactions.

Steps you could take to improve parametric triggers include:

- Specify the reporting agency you plan to use, to include URLs, site names, or anything else that could mitigate the risk of two different numbers coming from the same agency.
- Use of the WHO for data reporting – either globally or for specific countries – should involve direct communication with the WHO for answers to certain procedural and operational questions about which of their data sources is most reliable and their practices for data collection, reporting, and closing an event.
- Use a "highest of" or "lowest of" with a list of specific data sources (to minimize basis risk)
- Review data source reporting cycle and include language to instruct how a risk period ending on a weekend or holiday would be treated; also consider the time of day for the end of the risk period (such as noon Eastern Time if you refer to CDC data).
- Always have a backup trigger. The data sources on which you decide to rely may stop reporting at any time for any reason. They may decide that there's no value in further reporting based on how data is trending, or they could decide to reallocate resources. Further, they could change their reporting timeframes whenever they like, which results in further need for a backup trigger.
- Have a backup clause for two consecutive days of the same data, despite other sources showing progress (we saw this from the WHO from March 14, 2020, for example). While the estimates could realistically have not moved based on their methodology, the reason could also come down to resource availability or publishing timing.

- If you plan to consider a news source as a parametric data source, please contact PCS for past publications regarding the challenges associated with this issue. For pandemic, it may not be as problematic as it has been in the past for specialty ILWs (like marine and large onshore risk losses).
- Where possible, evaluate historical information from the trigger sources you're considering.

The Issue of "Silent Pandemic"

We've received several inquiries from clients about "silent pandemic." Like "silent cyber," the silent pandemic question addresses where there is ambiguous language in some insurance programs that could allow insureds to come up with physical damage claims that could subsequently result in significant business interruption losses.

For silent cyber, the classic example is the loss to Merck's property tower from NotPetya in 2017, in which enough physical damage was found (and was ultimately deemed supported by wordings) to result in extensive business interruption losses. There were other cases of this through NotPetya as well. Because of this, it didn't take long for re/insurers to have questions about silent pandemic, particularly for large onshore risk losses and marine.

For now, the situation is still in its earliest days, and there's more rumor and speculation than established fact working its way around the global re/insurance industry. Reviewing original policy wordings and reinsurance treaty language, to the extent possible, tends to be a good idea during any period of certainty, and doing so now is likely a good idea. As more information becomes available, PCS may provide updates in future COVID-19 informational bulletins.

An Increasing Cyber Threat Environment

News reports over the past week have focused on increased cyber threats, to include an attack on the U.S. Department of Health and Human Services. So far, PCS has not identified any affirmative insured cyber losses of at least US$20 million (our threshold for reporting via PCS Global Cyber).

Several cyber security firms have stated publicly that the cyber threat environment has increased significantly as a result of the COVID-19 situation.

- Work from home has led to a significant number of cyber risks that bad actors could use.
- In addition to the infrastructure issues associated with working from home, there's also the broader risk that people will use personal resources instead of those issued by their employers, which may have further security weaknesses.
- In general, bad actors benefit from environments characterized by chaos, instability, and fear.
- We believe that, because of the point above, any loss activity would cause disproportionate concern, even if the loss was not influenced at all by the COVID-19 environment.

Recently, news has begun to surface about a cyber breach of Princess Cruises (owned by Carnival Cruises). While the timing of the announcement comes during COVID-19, it's important for the market to remember that the event dates back to inappropriate access beginning in April 2019 (the company's official statement can be seen at https://www.princess.com/legal/legal_privacy/privacy-event/?=notice-of-data-breach). At present, the extent of the potential economic and insured impacts is unknown, and it will take time for both to emerge. The number of records affected has not been revealed. What's

important for the market to remember right now is that this breach is not related to the escalated threat environment from COVID-19 and shouldn't be confused as such.

Other market dynamics include:

- Demand for cyber retro is currently high, and there isn't a broad, deep, scalable market for this form of capacity
- A cyber loss for any reason may seem to have disproportionate impact given the broader risk and economic environments resulting from the COVID-19 situation
- Every year since 2014 has had at least one affirmative cyber loss of at least US$100 million. Four other years since 2013 have had at least two.
- A tight cyber retro market and a significant loss year could become particularly problematic for reinsurers looking to manage their risk and capital for this specific class of business.

Live Coronavirus Map Used to Spread Malware

Enterprise VPN Security

Princess Cruises admits data breach

A Brief Marine Update

- Issues around "silent pandemic" have come up in conversations with marine market players worldwide. At present, it's probably a good idea to review original policy wordings and reinsurance treaty language to understand the situation better.
- There have been questions about event aggregation and whether COVID-19 would be relevant. Again, this likely requires a careful review of specific policy and treaty language.
- At present, risk to the global marine market appears to be limited. The situation remains fluid, and PCS will continue to monitor the sector.

Useful links from COVID-19 data sources:

- US Government Federal Guidance - https://www.usa.gov/coronavirus
- Government of Canada Federal Guidance - https://www.canada.ca/en/public-health/services/diseases/coronavirus-disease-covid-19.html
- UK Government Guidance- https://www.gov.uk/government/topical-events/coronavirus-covid-19-uk-government-response
- Government of Mexico Federal Guidance - https://www.gob.mx/salud/documentos/nuevo-coronavirus-2019-ncov-comunicado-tecnico-diario
- ESRI COVID-19 GIS hub: https://coronavirus-resources.esri.com/?adumkts=industry_solutions&aduse=local_state&aduc=email&adum=list&utm_Source=email&aduca=mi_smart_communities&aduco=coronavirus_hub_resources&adut=950533&adupt=awareness&sf_id=7015x000000iQIAAA2&aducp=operational_second_body_text
- WHO COVID-19 situation reports: https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports
- CDC Overview Page: https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/summary.html (includes links to testing locations, nature of transmission, etc.)

- Insurance Information Institute Corona Virus Toolkit - https://www.iii.org/sites/default/files/docs/pdf/covid19_toolkit_03162020.pdf
- Pharmaceutical technology Coronavirus COVID-19 outbreak: Latest news, information and updates - https://www.pharmaceutical-technology.com/knowledge-bank/coronavirus-faqs-covid-19-categories/
- CNN Live Coronavirus pandemic updates: https://edition.cnn.com/world/live-news/coronavirus-outbreak-03-17-20-intl-hnk/index.html
- Worldometers.info - https://www.worldometers.info/coronavirus/country/us/Wikipedia US pandemic - https://en.wikipedia.org/wiki/2020_coronavirus_pandemic_in_the_United_States

If you have information that could be useful to PCS or the industry and would like to share it with us, please contact Tom Johansmeyer (+1 441 799 0009 / tjohansmeyer@verisk.com), Ted Gregory +1 201 253-6866 / tgregory@verisk.com), or your regular PCS contact. We'd be happy to connect with you. All information supplied will be held in the strictest confidence and only be used to inform industry-wide analysis that is fully anonymized.