PCFRC – 2020 Guidance to P&C actuaries:
Special considerations due to COVID-19

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This article reflects the opinion of the authors and does not represent official guidance of the CIA. The authors welcome feedback on this article and suggestions for future articles, and invite CIA members to regularly visit the CIA COVID-19 Hub for thought leadership.

As the COVID-19 situation continues to evolve, actuaries should pay close attention to all guidance and updates from the Office of the Superintendent of Financial Institutions (OSFI), the Autorité des marchés financiers (AMF), and the CIA. CIA guidance or other COVID-19 articles can be obtained on the CIA website.

The considerations discussed in the sections to follow are not intended to be prescriptive nor comprehensive. There may be impacts on policy liabilities or on the financial condition testing (FCT) that are specific to different situations and may not be included in this discussion. The considerations were drafted by the Property & Casualty Financial Reporting Committee (PCFRC) to assist property and casualty actuaries.

1. Impact of COVID-19 on policy liabilities

COVID-19 may affect claim and premium liabilities estimated by the actuary from various perspectives, including:

- premium volume (written, earned, and unearned premiums);
- current year expected losses directly or indirectly linked to the pandemic;
- potential adverse/favourable development on claims opened prior to the pandemic;
- discounting; and
- provisions for adverse deviations (PfADs).

Regular communication with claims professionals and underwriting teams is essential to the valuation of claim liabilities. Discussion points may include the potential effect of emerging claims that have not yet been reported, court decisions, judicial events, and political events.

1.1. Premium volume (written, earned, and unearned premiums)

Premium volume may be affected by government-mandated stay-at-home orders and closures of non-essential businesses. Some industries were required to halt their operations for several months (e.g., aviation, hospitality, tourism, restauration, etc.) and premium adjustments based on sales or revenue may have an impact on premium volume of insurers. Many policyholders have made adjustments to their policies (e.g., storage or reduced usage of vehicles, etc.) that could also affect premium volume. On the one hand, some provincial governments have encouraged insurers to return a portion of the automobile insurance premiums to their customers. On the other hand, premiums may have increased for insureds involved in distributions and deliveries.

1.2. Current year expected losses directly or indirectly linked to the pandemic

Consideration would be given to the impact of the pandemic and associated lockdown on the frequency and severity of incurred claims (reported and unreported). Significant judgement may be required to estimate the value of these claims, as the frequency, severity, and loss development patterns for claims incurred during this period may differ significantly from historical patterns. Moreover, adjustments to insurance policies made at the request of insureds may also affect the mix of business and the expected loss ratios.

The effect of the pandemic on various lines of business is discussed below.

Automobile – The decline in economic activity during the lockdown generally had a favourable impact on the frequency of automobile claims. However, potential delays in repairs or additional costs from repairs may have increased the severity of claims.

Property – Many companies observed a decrease in the frequency of personal lines theft and water damage claims due to insureds being at home during this period, although the frequency of losses on secondary dwellings may have increased. Claims from commercial property may have been higher than normal due to theft, vandalism, and arson on buildings left vacant. Moreover, supply chain issues may have generated or aggravated claims that occurred or were being settled during the pandemic.

Business interruption (covered and alleged) – A standard business interruption policy provides compensation for lost profit (and some expenses) due to a business being shut down as a result of a direct physical loss. Standard commercial property insurance is meant to cover physical damage from natural perils like fire, tornado, windstorm, and hail. A business interruption caused by a government-imposed shut down would normally not be covered by those policies. A number of class actions were launched against various insurers and groups of insurers, and defense costs may be incurred, regardless of whether an indemnity is paid out.

Some business interruption policies are specifically designed to cover the risk of pandemic. These policies are not widely purchased and would normally be subject to a sub-limit. The actuary would consult with the underwriting and legal teams to identify and determine whether there are special programs that the company offers that may be covering or potentially covering pandemic losses. For the business interruption exposure, the actuary would review the claims reported to date and consider setting up a special IBNR provision. The IBNR provision for those claims may be estimated using a probability weighting methodology.

Liability – The full extent of the impact of COVID-19 on liability policies may take a number of years to materialize. Various types of liability policies may be impacted, including:

- Errors and omissions (e.g., a broker failing to recommend the purchase of a pandemic policy);
- Directors and officers (e.g., bankruptcies related to the current economic downturn, where the board of directors can be blamed); and
- General liability (e.g., outbreak in a plant or store).

Medical malpractice – Policies covering medical professionals and medical facilities may be required to respond to claims related to the pandemic. Those that contracted the virus while being treated by a physician in a medical facility may allege that there was negligence in exposing them to the virus. There may also be exposure to claims from procedures being postponed due to the pandemic where the postponement caused the patient’s condition to deteriorate significantly.

Accident and health – Claims may be affected positively or negatively. A positive outcome could be associated with delayed treatments and possibly a reduction in the number of incidents during the lockdown. However, some patients may have required expensive COVID-19 medical treatments abroad.

Travel insurance – The great majority of commercial flights have been cancelled during the latter half of March 2020 as a consequence of travel advisories issued by governments. Therefore, travel insurance, including trip cancellation and repatriations, could have been triggered.

Cyber insurance – Provincial governments have strongly recommended that businesses require their employees to work remotely whenever feasible. By the end of June, many businesses were allowed to resume operations as normal, however, working remotely remains highly recommended. In some instances, a complete return to the work premises may not occur until 2021. An increased propensity to work remotely may lead to decreased cyber security and to an increased frequency of cyber attacks, leading to cyber policies having a greater risk of being triggered.

Event cancellation insurance – This is a specialty line that could see significant losses from policies that did not specifically exclude the risk of a pandemic. Additionally, as fewer events are planned, the demand for coverage may have decreased materially since March 2020, resulting in a significant decline in written premium.

Surety, credit, and mortgage loan insurance – These segments may be affected by the economic recession resulting from the government-imposed lockdowns. Some insureds may be unable to fulfill their contractual obligations due to the economic downturn.

1.3. Potential adverse/favourable development on claims opened prior to the pandemic

Adverse development may have been observed in some lines of business due to the shortage of labour and materials during the lockdown. For example, with automobile accident benefit claims, the challenges in receiving medical treatments and rehabilitation services may increase the total cost of open claims. Moreover, the economic downturn may also affect the ability of injured parties to go back to work in a similar position as they were holding prior to the crisis. On the other hand, judicial delay may encourage settlement of open claims for less than anticipated.

1.4. Discounting

During the month of March 2020, the Bank of Canada lowered its target overnight rate by 150 basis points, from 1.75% to 0.25%, bringing the rate down to its effective lower bound. In addition, the Bank of Canada announced significant planned purchases of bonds, including federal (April 1), provincial (starting May 7) and corporate (starting early May), driving down market yields.

This change in market yields may affect the investment portfolio of the insurer and the valuation of the discount rate. Asset defaults could also be impacted by the current credit situation, which could impact the selection of the discount rate.

1.5. PfADs

The pandemic may affect the selection of PfADs by the actuary. These include investment return rate PfAD, claims development PfADs, and recovery from reinsurance ceded PfADs.

The discount rate and the investment return rate PfAD, used in the estimation of discounted unpaid claims, may be affected by the sharp drop in market yields and higher expectations of credit defaults. In some instances, there is a possibility that the discount rate, net of PfAD, could be negative. In those cases, consideration would be given to selecting an investment return rate PfAD below the low margin level of 0.25% to limit the discount rate net of PfAD to 0%.

Claims development PfADs may also be reviewed in light of the current volatility in the claims experience. For example, some actuaries may question the permanency of the observed drop in claims frequency. For example, in conjunction with lockdown measures being lifted in various jurisdictions during in May and June, insurers may experience an increase in automobile usage as some insureds may be avoiding public transportation, as a measure of protection against the risk of COVID-19 exposure.

A number of reinsurers were affected globally by underwriting and investment losses emanating from COVID-19. On May 18, 2020, the rating agency S&P changed the outlook of the reinsurance market to negative. The actuary may consider adjusting the recovery from reinsurance ceded PfADs to reflect a slightly higher default risk.

1.6. Paid and incurred loss development factors

In selecting loss development factors, the actuary would use judgement in determining whether the patterns observed in the most recent period (i.e., latest diagonal of the development triangles) are reflective of expected future patterns. The actuary may choose to include, exclude or reflect the most recent experience only to a certain extent.

In addition, historical paid and reported development factors may need to be adjusted for the accident period related to the pandemic. With changes in claims frequency during the lockdown, the average accident date in the current accident year may vary from historical levels.

2. Impact of COVID-19 on the FCT

As part of the FCT, the actuary prepares a base scenario that would normally be consistent with the business plan of the company. Consideration could be given to adapt the base scenario to reflect the most recent financial data available, if actual financial results differ materially from the business plan. For example, the actuary may consider delaying the production of their FCT to incorporate the financial results of the first and/or second quarter of 2020.

Various elements of the FCT may need to be addressed, including:

- Projected premium volume;
- Expected losses;
- Investment projections; and
- Selection of adverse scenarios.

2.1. Projected premium volume

Projected premium volumes for the forecast period may need to be adjusted. It may be reasonable to assume that the level of economic activity, pre-COVID-19, may not be reached in the near future.

2.2. Expected losses

Projected expected losses may need to be adjusted to include expected losses directly or indirectly linked to the pandemic, the effect of discounting, and any adjustments to the PfADs.

2.3. Investment projections

During the second half of March 2020, the stock market experienced a severe decline. By the end of the second quarter, a large part of the losses was recovered. However, some industries were more severely affected than others, and the full recovery for these industries may take a number of years. The actuary would consider adjusting the market value of common shares to incorporate recent market performance.

Moreover, the lower market yield on bonds may impact the following elements in the financial statements of the company:

- Market value of bonds.
- Value of discounted unpaid claims.
- The projected investment return on bonds.

The actuary may also want to consider the rate of recovery of other economic variables that may impact assets and liabilities.

2.4. Selection of adverse scenarios

The adverse scenarios selected would reflect the current environment. Historical data may need to be adjusted to reflect the following elements:

- Potential exposures not contemplated in the original pricing (e.g., business interruption or general liability).
- Recent investment results, including recent market yields.
- Recent inflation projections.
- Relevant economic indicators such as unemployment or GDP.

This article is part of a series of practice-specific articles under the Actuarial Guidance Council.