Canadian Institute of Actuaries | Institut canadien des actuaires

Statement from the CIA Board

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Climate-Related Risks

The Canadian Institute of Actuaries (CIA) joins actuarial associations across the globe that are adding the voice of actuaries to those of regulators, securities commissions, accountants and investors in addressing climate-related risks.

The CIA has been recognized as a Supporter of the United Nations Environment Programme's Finance Initiative (UNEP FI). This status means the CIA is committing to share its expertise on a national and global level by helping financial institutions address sustainability targets and implement sustainability frameworks, and by undertaking thematic research, providing guidance and supporting communities of practice. Actuaries can bring their expertise to these activities.

We are using this message to alert members to the issue of climate-related risks. All CIA members are expected to uphold the vision of "financial security for all Canadians" and the guiding principles that emphasize duty to the public. In doing so, actuaries should consider the risks of a changing climate in their calculations and decisions as well as in the advice they give.

Climate-related risks are real

Climate change is at the top of the global agenda. Numerous initiatives – like the creation of the International Sustainability Standards Board with its seat in Montreal and the work of the International Auditing and Assurance Standards Board and the International Ethics Standards Board for Accountants – are underway to enhance disclosure and create standards so that the public is better informed of climate-related risks. In Canada, the Office of the Superintendent of Financial Institutions (OSFI) has been very active with, among other activities, a public consultation on Draft Guideline B-15: *Climate Risk Management* and a joint publication with the Bank of Canada on using scenario analysis to assess climate-related risks. The Canadian Association of Pension Supervisory Authorities (CAPSA) recently issued a consultation paper stating that recognizing the financial impact of climate-related risks is a fiduciary duty.

Climate-related risks are commonly categorized as physical risks, transition risks and liability risks.

Physical risks

These risks arise from a changing climate increasing the frequency and severity of extreme weather events, such as flooding, wildfires and windstorms. These events have the potential to degrade physical assets (e.g., property damage, disruption of resource availability, supply chain interruption) and impact health (e.g., increases in mortality and morbidity).

Transition risks

These risks are driven by a shift towards a lower-carbon economy and could stem from current or future government policies, changes in investor or consumer sentiment, or technological advancements. Insurers, banks, pension funds and other institutional investors face varying levels of financial and reputational risk from potential rapid volatility and/or reduction in the market value or income generated by certain classes of assets, including stranded assets. One common definition of stranded assets is "assets that have suffered from unanticipated or premature write-downs, devaluations or conversion to liabilities."

Liability risks

These risks come from the potential exposure to climate-related litigation. Liability risks may arise from the failure of the organization to mitigate impacts, to adapt to climate change or to provide sufficient disclosure around material financial risks related to climate change.

An example of liability risk is Canadian coastal regions (including both commercial and residential real estate) whose territory may erode and/or disappear as sea levels rise. Over the last few years in Canada, there have been increased incidences of flood events, extreme drought, windstorms and other weather-related catastrophes. Residents could potentially seek redress from those they believe to be responsible for the degradation of their homes and businesses. Legal liability can also ensue from "greenwashing," where stakeholders are misled to believe that an organization's products, aims and policies are environmentally friendly.

These climate-related risks are already having significant financial and demographic impacts on investors and institutions that actuaries frequently work with.

For example:

- Investors are considering the potential implications of climate-related risks on their invested assets.
- Institutions are evaluating and considering their exposure to the impact of risks from changing patterns of extreme weather on claim frequency and severity and of changing patterns of temperature and disease on morbidity and mortality. Such changes could lead to alterations in pricing, product design and valuation analyses, including changes in the provisions for adverse deviations.
- Institutions with pension liabilities are evaluating and considering their exposure to climate-related risks and their impacts on the ongoing funding of these plans by sponsors and members.
- Social security institutions are considering the overall macroeconomic and demographic impacts of climate-related risks. For example:
    - Demography may be affected by changing immigration and mortality patterns.
    - Macroeconomic impacts may include changes in GDP growth and labour market dynamics.

These considerations are important for actuarial work for social insurance programs, including the Canada Pension Plan, Quebec Pension Plan and Employment Insurance.

Actuaries have a key role to play

Actuaries can contribute significantly to the understanding of the risks and opportunities associated with the changing climate. Increasingly, actuaries across numerous practice areas are involved in roles related to disclosure of climate-related risks as well as complex scenario analysis.

Action starts here

Given the important role that actuaries play in assessing the impact of climate change and analyzing climate risks and opportunities for stakeholders and clients, the CIA Board recently established a Climate Change and Sustainability Steering Committee (CCSSC). The CCSSC provides thought leadership and high-level coordination across the Institute and supports the efforts of the CIA's existing Committee on Climate Change and Sustainability. It is proactively monitoring the issue of climate-related risk and ensuring CIA members continue to be effectively informed through education, professional development, guidance, research and public statements.

CIA committees will help inform actuaries by sharing the latest developments and relevant publications from national and international climate organizations. CIA members are strongly encouraged to review and consider these resources:

- One of many notable organizations is the Task Force on Climate-related Financial Disclosures (TCFD). CIA members should take note of its many relevant publications. The TCFD was established by the Financial Stability Board with members from across the G20 to develop recommendations on the types of information that companies should disclose to support investors, lenders and insurance underwriters in appropriately assessing and pricing risks related to climate change. The CIA first brought the TCFD to members' attention in the Institute's 2019 public statement *Time to Act: Facing the Risks of a Changing Climate*.

- The CIA's Climate Change and Sustainability Resources page is an extensive list of internal and external climate-related publications for actuaries that provide, for example, foundational knowledge, guidance on risk management and scenario testing, research, indices and databases, and disclosure.
- The International Actuarial Association (IAA) has released important climate-related papers on topics such as climate-related disclosures, scenarios, climate science and resources.
- The UK Institute and Faculty of Actuaries (IFoA) has released a series of Risk Alerts on climate, which this document builds on, as well as a recent policy briefing for COP27, *Climate Emergency – tipping the odds in our favour*.