



environmental
defence

Mounting Costs: How Climate Change Is Costing You More than \$500 Extra Per Year in Home Insurance



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About Environmental Defence

Environmental Defence is a leading Canadian advocacy organization that works with governments, industry, and individuals to defend clean water, a safe climate, and healthy communities.

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Table of Contents

Glossary	4
Executive Summary	5
Section 1: Introduction	7
1.1 Report overview	10
1.2 Why Home Insurance?	11
1.3 Methodological Overview	12
Section 2: The Home Insurance Landscape in Canada	13
2.1 Market Overview	13
2.2 Home Insurance Premium Trends	14
Section 3: Key Drivers of Premium Increases	16
3.1 Climate Change Perils and Rising Costs	16
3.2 Non-Climate Inflationary Factors	18
Section 4: Results and Discussion	22
4.1 Climate Attribution Estimates	22
4.2 The Growing Role of Reinsurance	25
Section 5: Recommendations	26
5.1 Align Federal Climate Policy with Adaptation Efforts	27
5.2 Establish Legal Frameworks for Climate-Related Subrogation Claims	28
5.3 Transition Planning for the Insurance Industry	30
5.4 Require better data disclosure and transparency from insurance companies	34
5.5 Reduce risks by changing how and where homes are built	35
Appendices	38
Appendix A	38
Appendix B	39

Glossary

Attribution Science: A field of climate change research that determines the extent to which human-caused climate change has influenced the likelihood or severity of specific extreme weather events.

Catastrophic Loss: A large scale insurance loss event, most often caused by natural disasters such as earthquakes or floods, where the resulting claims exceed a certain threshold. For Intact's line of property and casualty insurance, this threshold is currently \$10 million. For Definity, it is \$2 million.

Ceded: The portion of risk (and associated premiums) that a primary insurance company transfers to a reinsurer (see Reinsurance below) to manage its liability and reduce exposure (see below) to financial loss.

Claims Ratio: The percentage of each dollar in premiums earned that an insurer pays out in claims. A claims ratio of 70 per cent means that for every dollar collected in premiums, insurers pay out 70 cents in claims.

Combined Ratio: The percentage of each dollar in premiums earned that an insurer pays out in claims and expenses combined. It is a measure of the profitability of a company's insurance activities alone, excluding investment income, taxes, and debt costs. A combined ratio below 100 per cent means that an insurer is making a profit on its underwriting activities, while a ratio above 100 per cent means the insurer is paying out more in claims

and expenses that it collects in premiums. In this instance, a company must rely on income it receives on its investments to break even.

Expense Ratio: The percentage of each dollar in premiums earned that an insurer spends on covering operating expenses, including salaries, commissions, marketing, and administration

Exposure: The total dollar value of all assets and potential liabilities (such as rebuilding costs, contents replacement, and temporary relocation expenses) that an insurer is contractually obligated to cover in the event of a peril.

Overland Flood Insurance: Insurance coverage that protects against damage caused by water that floods over land, such as from heavy rain or overflowing rivers.

Prior-Year Development (PYD): Adjustments made to insurance claims from previous years, reflecting changes in the estimated cost of those claims. Positive PYD occurs when claims cost less than initially thought, while negative PYD means claims cost more than expected.

Reinsurance: Insurance that insurance companies purchase to protect themselves against large losses.

Underwriting: The process by which insurers evaluate the risks of insuring a customer and determine premium rates and coverage. Shorthand for 'insuring'.

Executive Summary

A new study using data from Canada's largest home insurer estimates that climate change is responsible for roughly half of the rise in home insurance costs over the past 16 years – adding about \$533 per year to the average homeowner's annual insurance premium since 2008 (in 2024 Canadian dollars). That means that the average property insurance holder has paid over \$3000 in additional costs since 2020 due to the effects of climate change.

The research, conducted in conjunction with this report by the University of Toronto, analyzed how the costs of extreme weather events have grown compared to everyday insurance claims like burst pipes or accidental damage. Because both types of claims face the same pressures from inflation and rising construction costs, we estimate that any gap in how fast the costs for each type of claim are increasing can be attributed to the worsening impacts of climate change. That gap has grown significantly.

What the research found:

Weather-related insurance claims at Canada's largest home insurer have been rising at 11.9 per cent per year since 2008, which far outpaces routine claims, which have been rising just 1.97 per cent annually over the same period. The research estimates that approximately 66 per cent of this gap is directly attributable to climate change, with the remainder driven by other factors such as urban growth and aging infrastructure.

This has a direct impact on what homeowners pay. For every \$1 insurers pay out in weather-related claims, insurance companies charge homeowners \$1.78 in higher premiums. In total, this research estimates that climate change accounts for 54.5 per cent of total home insurance premium increases between 2008 and 2024.

Looking ahead, the situation is expected to worsen significantly. Insurers are projecting that weather-related claims across Canada will rise 11.5 per cent per year, meaning that without meaningful action, home insurance will become increasingly unaffordable for ordinary Canadians.



\$533

The average amount added to homeowner's annual insurance premiums since 2008.



What needs to happen:

Addressing the insurance affordability crisis will require coordinated action from governments, financial institutions, and the insurance industry itself. This report recommends:

- **Stronger federal climate action:** Federal government to reintroduce policies to reduce greenhouse gas emissions, which is the most direct way to slow the growth of extreme weather events and the growing costs they create.
- **Legal pathways for cost recovery:** creating frameworks that allow insurers to pursue legal action against major industrial polluters to recover a portion of climate-related claims costs.
- **Climate risk planning for financial institutions:** requiring banks, insurers, and investment firms to formally plan for and disclose how climate change affects their operations and long-term stability.
- **Transparency from insurers:** mandating that insurance companies publicly report climate-related data, so Canadians can better understand what is driving the rising cost of their premiums.
- **Smarter building and planning rules:** updating building codes and land-use policies to stop new homes from being built in areas at high risk of flooding, wildfire, or other climate hazards, reducing future exposure to financial loss for both homeowners and insurers.

Without action on these fronts, the financial burden of climate change will continue to fall disproportionately on Canadian homeowners.

Section 1: Introduction

Canadians are experiencing more frequent hailstorms and floods, hotter days, bigger storms and stronger winds. The impacts of these increased weather events are experienced across the country, by everyone.

There is clear evidence that an increase in the likelihood and severity of extreme weather events is linked to human-induced (anthropogenic) climate change. This evidence comes from attribution science, which is a scientific process designed to identify the causes of climatic events.¹

Many case studies have confirmed that increased frequencies of extreme precipitation, droughts, cyclones as well as compound extremes (including dry/hot events and fire weather) can be attributed to anthropogenic induced greenhouse gases.²

In simpler terms, humans burning fossil fuels is causing climate change, which is making extreme weather events more likely to occur.



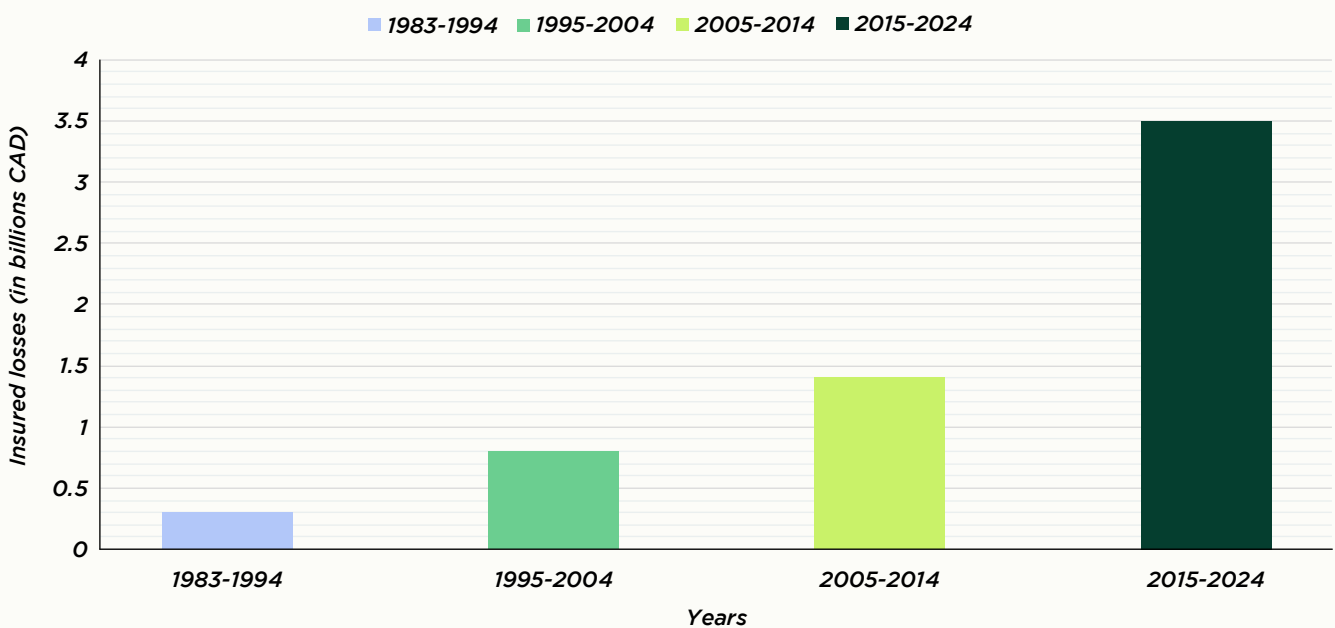
¹NOAA Physical Sciences Laboratory. "What Is Climate Attribution Science?" Accessed 2026. <https://psl.noaa.gov/csi/whatis/>.

²Otto, Friederike EL. "Attribution of extreme events to climate change." *Annual Review of Environment and Resources* 48.1 (2023): 813-828: <https://www.annualreviews.org/content/journals/10.1146/annurev-environ-112621-083538>; Seneviratne, S.I., X. Zhang, M. Adnan, W. Badi, C. Dereczynski, A. Di Luca, S. Ghosh, I. Iskandar, J. Kossin, S. Lewis, F. Otto, I. Pinto, M. Satoh, S.M. Vicente-Serrano, M. Wehner, and B. Zhou, 2021: Weather and Climate Extreme Events in a Changing Climate. In *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 1513-1766, doi: 10.1017/9781009157896.013.

With worse extreme weather events come higher damage costs. The rolling average insured natural catastrophic losses in Canada from the last 43 years are as follows³:

much money extreme weather events are costing Canadians. In 2024, insured losses in Canada reached a record breaking \$9.2 billion. 2025 was considered a low year, yet

AVERAGE ANNUAL INSURED LOSSES FROM NATURAL CATASTROPHES (IN BILLIONS CAD)



The average annual insured catastrophic losses were ten times higher between 2015-2024 than they were up until 1994, and more than twice as high as the decade prior. There is a clear upwards trend in how

still had \$2.4 billion in insured losses, with at least an additional \$1 billion in uninsured losses.⁴ Insured losses in Canada could reach \$25 billion by 2050, based on growth trends provided by global reinsurance firm SwissRe.⁵

³ Insurance Bureau of Canada. "Personal Property Report." Toronto: IBC, 2025. <https://a.storyblok.com/f/339220/x/ba2a5efb46/personal-property-report.pdf>, Figure 2 page 6

⁴ Insurance Bureau of Canada. "New Data Finds Severe Weather Inflicted Unprecedented Losses for Canadian Businesses in 2024." 2025. <https://www.ibc.ca/news-insights/in-focus/new-data-finds-severe-weather-inflicted-unprecedented-losses-for-canadian-businesses-in-2024>. See also: CatIQ. "Canadian Insured Losses from Catastrophic Events Total CAD 2.4B in 2025; Societal Losses Total 3.4B." January 20, 2026. <https://public.catiq.com/2026/01/20/canadian-insured-losses-from-catastrophic-events-total-cad-2-4-b-in-2025-societal-losses-total-3-4-b/>.

⁵ Calculated by Investors for Paris Compliance. SwissRe projects natural catastrophes to continue to follow the 5-7% annual growth rate (in real terms) that has been the norm of recent years. We took the midpoint (6%) and projected 25 years of Canadian insured and uninsured losses based on average insured losses from 2022-2024. (\$3.61 billion in both 2022 & 2023, and \$9.1 billion in 2024 = \$5.44 billion). Investors for Paris Compliance. "Climate Damages and Canada's Looming Home Insurance Crisis: Who Pays" 2025. <https://www.investorsforparis.com/wp-content/uploads/2025/11/Who-Pays-EN-1.pdf>

On a global scale, insured losses from natural catastrophes are predicted to reach between \$148 - 320 billion in 2026.⁶

There is a direct relationship between rising damage costs from extreme weather, and rising home insurance premiums. The more money that insurance companies are required to pay out to repair damage, the higher their costs and the higher the required customer premiums needed to recoup costs.

There is extensive evidence that home insurance premiums have increased significantly over the last decade. Since 2015, average home insurance premiums in Canada have risen by 76.94 per cent.⁷ Nova Scotia, Alberta, British Columbia and

Saskatchewan have all experienced average increases in excess of 80 per cent since 2015.⁸ However, when trying to understand why home insurance has gotten so expensive, it is not as simple as drawing a straight line between climate change and premium cost. Climate change is one factor, but by no means the only one. Other factors include general inflation, higher reinsurance costs, or higher densities of homes in high-risk areas.

This creates a perfect storm for Canadian homeowners; every possible factor is pushing up their premium costs to unaffordable levels. Nearly nine in ten Canadians (87 per cent) say they are concerned about the state of housing today, and rising home insurance premiums add to housing unaffordability.⁹



⁶ SwissRe. Sigma 1/2026: Natural Catastrophes. Zurich: SwissRe, 2026. <https://www.swissre.com/dam/jcr:4b5669a3-b7e2-4682-bf96-a597085958a6/sigma-1-2026-natural-catastrophes-report.pdf>.

⁷ MyChoice.ca. "Home Insurance Outlook 2025." 2025. <https://www.mychoice.ca/blog/home-insurance-outlook-2025/>.

⁸ Ibid

⁹ Sheppard, Eddie and Coletto, David. "9 in 10 Canadians are Concerned About the State of Housing in Canada Today". Abacus. 2026. [https://abacusdata.ca/9-in-10-canadians-are-concerned-about-the-state-of-housing-in-canada-today/#:~:text=According%20to%20a%20survey%20by%20Abacus%20Data,Atlantic%20Canada%20\(44%25\)%2C%20and%20British%20Columbia%20\(42%25\)](https://abacusdata.ca/9-in-10-canadians-are-concerned-about-the-state-of-housing-in-canada-today/#:~:text=According%20to%20a%20survey%20by%20Abacus%20Data,Atlantic%20Canada%20(44%25)%2C%20and%20British%20Columbia%20(42%25))

This trend is unsustainable. As stated in a 2024 Morningstar commentary, “consumers are finding it more difficult to absorb additional costs”¹⁰ This trend will have to hit a ceiling soon.

1.1 Report overview

The aim of this report is to estimate the effect of climate change on home insurance premiums paid by homeowners in Canada, as distinct from other inflationary factors.

To date, there have been limited attempts to estimate this figure in Canada. Our hope is that this report can provide both homeowners and policy makers with a more in-depth understanding of the specific impacts of climate change.

Additionally, insurance companies face almost no requirements to disclose home insurance premium data to regulators or customers. While companies are required to disclose if auto insurance rates change, the same is not true for home insurance.

This imbalance of information makes it hard for homeowners to understand their premiums. Without a proper, and shared, understanding of the dynamics of insurance pricing in Canada, we cannot work towards finding ways to protect homeowners.

This report will outline the current home insurance landscape in Canada, and factors which may be driving premium increase. It will present an overview of methods, analysis and results. A discussion of recommendations for how the government and insurance industry may start to address this crisis will follow.

In order to decrease both their own exposure to risk, and that of their policy holders, insurance companies advocate for homeowners to reduce their own risks by taking measures such as installing automatic water shut off valves or leak detection systems. While reducing individual exposure is a valid way to reduce risk, this recommendation section of this report will focus on actions that private and governmental institutions can take to address the insurance unaffordability crisis. As this report will discuss, there are many actions that governments and private companies can take to more closely align their efforts to address home insurance unaffordability with climate mitigation goals, ensuring that the financial burden of climate-related risks is fairly distributed according to who contributes to it.

¹⁰ Morningstar DBRS. “Canadian P&C Insurance Outlook 2024: Market Conditions Supportive of Premium Rate Increases.” 2024. <https://dbrs.morningstar.com/research/425120/canadian-pandc-insurance-outlook-2024-market-conditionssupportive-of-premium-rate-increases>.

1.2 Why Home Insurance?

Given Canada's diverse housing landscape, a significant portion of people carry tenants or condo insurance, rather than traditional home insurance policies. Throughout this report, we use 'home insurance' as an umbrella term that includes home, tenants and condo insurance. This classification reflects that Canadian insurance companies typically report these metrics under a single 'Personal Property' Line and do not publicly separate out the three.

The stability of home insurance is paramount to the stability of the Canadian financial sector. Insurance operates as economic infrastructure underpinning housing market stability by fulfilling dual roles: protecting households from financial ruin and safeguarding lenders against borrowers defaulting on their loans.¹¹ As adequate home insurance is a prerequisite for obtaining a mortgage, insurance acts as the foundation to the housing market.

If a property becomes uninsurable against certain risks due to increased likelihood of those risks occurring, then that property risks becoming unmortgageable. This creates a negative feedback loop, where current homeowners may find themselves stuck with a risky asset, and prospective homeowners

are faced with lower availability of housing stock. When insurers completely retreat from providing some types of insurance in high risk areas, this risk amplifies.

These housing market disruptions could cause major financial issues for many homeowners. Recent polling showed that home ownership is a central part of retirement planning for 62 per cent of Canadians.¹² If owners are unable to sell their homes to liquidate equity for retirement, they face a scenario where the wealth they intended to fund retirement has become unusable due to climate risk.

Rising insurance costs also transmit climate risk into the broader credit system. Recent research conducted by the Federal Reserve Bank of Dallas, using data on 6.7 million homeowners, found that increases in home insurance costs were associated with higher rates of mortgage and credit card delinquency.¹³

Given the centrality of mortgages to the financial sector, a threat to the availability and affordability of home insurance due to climate change is not just a consumer issue; it represents a wider threat to mortgage security and financial stability.

¹¹ Sherri Goodman et al. "Climate Risk and Housing Finance." IUHF Journal, Summer 2025. https://centaur.reading.ac.uk/124027/1/IUHF%20journal%20Summer%202025_Climate%20risk%20article.pdf.

¹² Healthcare of Ontario Pension Plan (HOOPP) and Abacus Data. 2025 Canadian Retirement Survey. Toronto: HOOPP, June 17, 2025. <https://hoopp.com/news-and-insights/research-and-analysis/2025-canadian-retirement-survey>.

¹³ Ge, Shan, Stephanie Johnson, and Nitzan Tzur-Ilan. "Climate risk, insurance premiums and the effects on mortgage and credit outcomes." (2025).

1.3 Methodological Overview

The quantitative analysis this report is based on is from a working paper developed in conjunction with this report by Jeffrey Sun, Assistant Professor of Economics at the University of Toronto, entitled 'The Impact of Climate Change on Home Insurance Costs in Canada'. The complete methodology for this research can be found in Appendix B, which includes a full discussion of limitations, assumptions and methodological steps. The complete paper can be viewed [here](#).

The core approach of this report is to compare two types of insurance losses to isolate climate change's impact on costs. Catastrophic losses, from major weather events like floods, wildfires, and severe storms, are compared to non-catastrophic losses from routine claims like burst pipes and theft. Both types of losses are affected by general inflation and rising construction costs, but only catastrophic losses are expected to be intensified by climate change. By measuring how much faster catastrophic losses are growing compared to routine losses, the study estimates the portion of rising insurance costs that can be attributed to climate change rather than other factors. This answers the question that climate and insurance experts have been asking for years: we know climate change increases premiums, but by how much?

An important limitation of this report is that only two insurance companies had sufficient publicly available information to be included: Intact Financial Corporation (Canada's largest property and casualty insurer with 14.9% market share) and Definity Financial (with 3.9% market share).¹⁴ These companies could only be studied because they are publicly traded, which requires them to disclose detailed financial information to shareholders and regulators.

The majority of Canadian insurers are privately held companies, mutual insurers, or smaller regional carriers that have no obligation to share this type of data, making their information completely inaccessible for research. The findings of this report reflect how two of Canada's largest insurers are responding to climate risks, but may not represent what is happening across the entire insurance market, particularly among smaller companies that face different financial constraints.

¹⁴ Smythe CPA. PC Insurance Brokerage Report 2025. Vancouver: Smythe CPA, 2025. <https://www.smythecpa.com/wp-content/uploads/2025/10/Smythe-PC-Insurance-Brokerage-Report-2025.pdf>.

Section 2: The Home Insurance Landscape in Canada

2.1 Market Overview

Canada's insurance market is split into two segments. Life & Health (L&H) insurance covers life insurance, health-related coverage, and pension plans. The Property and Casualty (P&C) segment includes personal property and auto, commercial, travel and liability coverages.

Canada's P&C segment was worth over \$80 billion as of 2026.¹⁵ According to data from the Office of the Superintendent of Financial Institutions (OSFI), there were 141 operating P&C companies in 2025,¹⁶ but the industry was dominated by Aviva, Co-operators, Desjardins, Intact and TD Insurance.

Like homeowners, P&C companies are being hit hard by extreme weather events. Insured losses from catastrophic weather events surpassed \$9 billion in 2024.¹⁷

Between 2008-2024, personal property accounted for more than 60 per cent of all insured losses from severe weather, more than commercial and vehicular losses combined.¹⁸ One reason for this is that commercial properties are often built according to specific codes, and constructed from durable materials such as concrete. Personal property, on the other hand, is often far older and less maintained. Automobiles have significantly lower replacement costs than properties, so account for a lower share of insured losses.



¹⁵ Custom Market Insights. "Canada Property and Casualty Insurance Market Size." 2026. <https://www.custommarketinsights.com/press-releases/canada-property-casualty-insurance-market-size/>.

¹⁶ Office of the Superintendent of Financial Institutions. P&C Insurance Company Data. Ottawa: OSFI, 2025. <https://osfi.beyond2020.com/ReportFolders/reportFolders.aspx>.

¹⁷ Insurance Bureau of Canada. "Personal Property Report." Toronto: IBC, 2025. <https://a.storyblok.com/f/339220/x/ba2a5efb46/personal-property-report.pdf>.

¹⁸ TD Economics. "Extreme Weather and Insurance in Canada." Toronto: TD Bank, 2024. <https://economics.td.com/ca-extreme-weather-and-insurance>.

2.2 Home Insurance Premium Trends

Canadian homeowners are currently facing a “hard market” characterized by rising costs and shrinking availability of insurance. Since 2015, home insurance premiums in Canada have risen by 76.94 per cent, with the average annual home insurance premium increasing from \$549 to \$974.¹⁹ In 2023 and 2024, insurers paid out \$1.01 in costs for every \$1 in premiums earned from personal property.

TD Insurance conducted a study which found that postcode areas which had experienced insured personal property losses of \$10 million or more saw a faster increase in home insurance premium costs relative to areas that had not. In Alberta, postal code areas which had experienced significant losses from extreme weather events had insurance premiums almost 10 per cent higher than areas not hit by such intense insured losses.²⁰

Neither insured losses nor premium trends are the same across the country. Ontario experienced more catastrophic weather events between 1983-2024 than any other province,²¹ and premium rates increased by

79.05 per cent from 2015. These catastrophic weather events were comparatively not as costly as those experienced in other provinces, as despite experiencing the highest number of events, Ontario incurred only 24 per cent of total insured losses in the study period.

In comparison, disasters in Alberta were costly. 47 per cent of total insured from catastrophic weather between 1983-2024 occurred in Alberta.²² In 2024, insurers paid out \$1.18 in claims and costs for every \$1 they earned in personal property premiums from Alberta.²³ Average premiums rose by 9.07 per cent between 2024-2025, bringing the average annual house cost to \$1,396 per year.²⁴

Due to its location on the edge of the Rocky Mountains, Alberta is highly susceptible to significant hail storms. Over the last two decades, hail storms have caused more than \$10 billion in insured losses in the province.²⁵ In response to the growing risks from hail, insurers have begun to alter how they protect homeowners against the peril.

¹⁹ MyChoice.ca. “Home Insurance Outlook 2025.” 2025. <https://www.mychoice.ca/blog/home-insurance-outlook-2025/>.

²⁰ TD Economics. “Extreme Weather and Insurance in Canada.” Toronto: TD Bank, 2024. <https://economics.td.com/ca-extreme-weather-and-insurance>.

²¹ Ibid.

²² Ibid.

²³ Insurance Bureau of Canada. “Personal Property Report.” Toronto: IBC, 2025. <https://a.storyblok.com/f/339220/x/ba2a5efb46/personal-property-report.pdf>.

²⁴ MyChoice.ca. “Home Insurance Outlook 2025.” 2025. <https://www.mychoice.ca/blog/home-insurance-outlook-2025/>.

²⁵ Insurance Bureau of Canada. “Alberta Continues to See Large-Scale Impacts from Hailstorms.” Accessed 2026. <https://www.ibc.ca/news-insights/in-focus/alberta-continues-to-see-large-scale-impacts-from-hailstorms>.

Every insurer offering protection in the province has increased deductibles for hail-related damage, with deductibles reaching up to \$10,000 in some cases.²⁶ Other insurers have switched from offering hail protection as standard, to offering it as an optional extra.²⁷

The issue of changing coverage is not unique to Alberta. An estimated 1.5 million households in Canada live in areas where overland flood insurance is not offered due to high risks.²⁸ In other high-risk areas, insurance is functionally unavailable as it can add as much as \$15,000 to annual premiums, which is unaffordable for most.²⁹

These changes are not arbitrary, and reflect the increasing risks faced by properties in many parts of Canada. There are many possible consequences of the increasing costs of both providing and purchasing home insurance: insurers may completely stop offering insurance in some areas, leaving homeowners with worthless assets; or homeowners may sell their homes to unsuspecting new buyers, in an effort to outrun the risk.

²⁶ TD Economics. CA Extreme Weather and Insurance (full report). Toronto: TD Bank, 2024. https://economics.td.com/domains/economics.td.com/documents/reports/Is/CA_Extreme_Weather_and_Insurance.pdf.

²⁷ Insurance Business Canada. "Alberta Hail Insurance Faces New Pressures: Regulator Survey Reveals Shifts." 2024. <https://www.insurancebusinessmag.com/ca/news/catastrophe/alberta-hail-insurance-faces-new-pressures-regulator-survey-reveals-shifts-550955.aspx>.

²⁸ TD Economics. CA Extreme Weather and Insurance (full report). Toronto: TD Bank, 2024. https://economics.td.com/domains/economics.td.com/documents/reports/Is/CA_Extreme_Weather_and_Insurance.pdf.

²⁹ Ibid.



Section 3: Key Drivers of Premium Increases

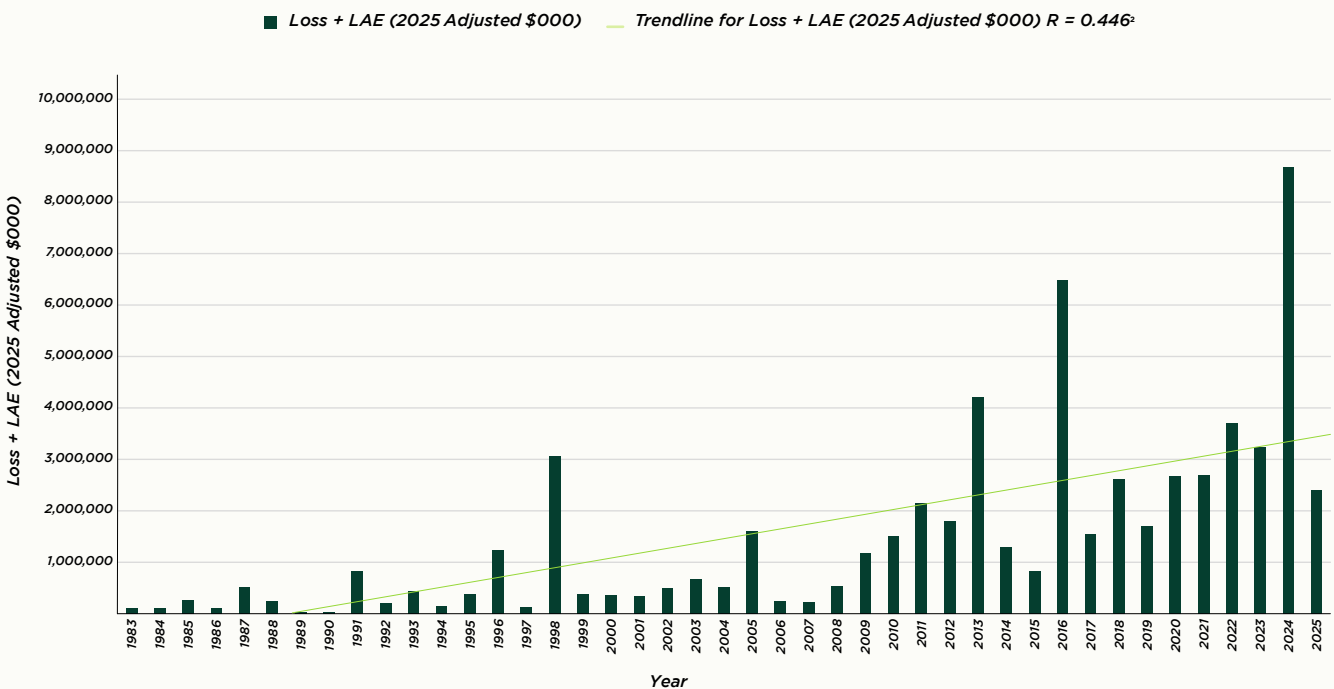
Multiple variables factor into premiums prices paid for insurance in Canada. These can be divided into peril-related costs, where the risk, severity and frequency of perils drives up actual and expected costs for insurers, and general inflationary factors.

The following section will define and explain some of the factors pushing up costs in Canada.

3.1 Climate Change Perils and Rising Costs

Global natural catastrophe insured losses have been rising between 5-7 per cent annually in real terms since 1996.³⁰ In Canada, insured catastrophe losses have increased by 7.65 per cent annually in real terms since 1983.³¹

CATASTROPHIC LOSSES IN CANADA 1983-2025 IN 2025 DOLLARS



³⁰ SwissRe. Sigma 1/2026: Natural Catastrophes. Zurich: SwissRe, 2026. <https://www.swissre.com/dam/jcr:4b5669a3-b7e2-4682-bf96-a597085958a6/sigma-1-2026-natural-catastrophes-report.pdf>.

³¹ Calculated using data from <https://a.storyblok.com/f/339220/98cc68c514/2023-ibc-fact-book.pdf>, using CPI data from 1983

3.1.1 Flooding

Flooding is amongst the most common weather-related perils experienced by homeowners in Canada. Public Safety Canada estimates that average flood-related losses reach \$2.97 billion a year, with risks to residential structures making up the majority of that at \$1.93 billion annually.³² Flooding can occur in a number of ways, including: excess rainfall causing rivers and lakes to overflow; storm surges in coastal areas; and rainfall overwhelming sewage systems.³³

In July 2024, flash floods in the Greater Toronto Area (GTA) caused almost \$1 billion in insured damages in just hours,³⁴ while Nova Scotia experienced 25cm of rainfall in 24 hours, causing \$170 million in insured losses in 2023.³⁵

Flood risk is highly concentrated in some areas. About 87 per cent of the total annual losses from flooding occur in Quebec, Ontario, British Columbia and Alberta. Furthermore, approximately 89 per cent of Canada's total flood-related damages linked to residential real estate are concentrated in 10 per cent of homes.³⁶

Recent reporting from OSFI showed the total exposure the property and casualty insurance industry has to flood risk in major urban centers. Vancouver has \$783 billion of exposure, and Calgary has \$513 billion, with more than 10 per cent of assets in each located in high risk zones. The level of exposure relative to the populations in each urban centre means that Calgary has over \$300,000 of potential insurance exposure per capita, with over \$250,000 exposure per capita in Vancouver. Urban areas have a high concentration of property, elevating the potential value of losses.

3.1.2 Winter Storms

Winter storms are characterised by heavy snow, ice, strong winds and extreme cold. Conditions can cause pipe failures, power outages, wind damage and roof collapse. A severe ice storm in Ontario and Quebec in 2025 caused \$342 million insured damages, including damage from flooded basements and downed power lines.³⁷

³² Government of Canada, Public Safety Canada. "Adapting to Rising Flood Risk." Ottawa: Public Safety Canada, 2022. <https://www.publicsafety.gc.ca/cnt/rsrscs/pblctns/dptng-rsng-flt-rsk-2022/index-en.aspx>.

³³ SVMRestore Mississauga. "Different Types of Floods in Canada." Accessed 2026. <https://svmrestore-mississauga.ca/post/DIFFERENT-TYPES-OF-FLOODS-IN-CANADA>.

³⁴ Insurance Bureau of Canada. "July Flash Floods in Toronto and Southern Ontario Caused Over \$940 Million in Insured Damage." 2024. <https://www.abc.ca/news-insights/news/july-flash-floods-in-toronto-and-southern-ontario-caused-over-940-million-in-insured-damage>.

³⁵ Insurance Bureau of Canada. "Nova Scotia Flooding Causes Over \$170 Million in Insured Damage." 2023. <https://www.abc.ca/news-insights/news/nova-scotia-flooding-causes-over-170-million-in-insured-damage>.

³⁶ Ibid.

³⁷ Insurance Bureau of Canada. "Ontario and Quebec Ice Storm Causes \$342 Million in Insured Damage." 2025. <https://www.abc.ca/news-insights/news/ontario-and-quebec-ice-storm-causes-342-million-in-insured-damage>

3.1.3 Wildfires

Unfortunately, Canadians are now used to wildfires. Wildfire season typically runs between April-September, with 2.5 million hectares burning per year.³⁸ However, climate change is slowly changing Canada's wildfire seasons, through changing rainfall patterns, vegetation moisture content, wind patterns and extreme weather events.³⁹ By 2100, the fire season may be up to a month longer in some forests as a result of climate change.⁴⁰ In recent years, wildfires are burning a greater area and causing more damage. They can completely burn homes down, or cause significant smoke damage. In July 2024, a wildfire destroyed 358 homes in the Albertan town of Jasper. Insured losses from the blaze approached \$1.3 billion.⁴¹

3.1.4 Hailstorms

Hailstorms are one of the most destructive and costly perils in the Canadian insurance landscape. As mentioned, Alberta has experienced at least one major hailstorm every year for the past twenty years with over \$6 billion in hail related damage in the last five years.⁴² Hailstones can get to be as large as grapefruits and exceed speeds of 100 km/h.⁴³

3.2 Non-Climate Inflationary Factors

3.2.1 Replacement Costs

A major inflationary factor impacting the cost of home insurance premiums in Canada is the cost of replacing damaged or destroyed buildings. Replacement costs are determined primarily by the costs of materials and labour. Since 2020, Canada has experienced significant inflation in many key building materials, as a result of supply chain disruptions. Between 2020-2022, the price index for concrete used in residential buildings increased by 31 per cent, and between 2020-2026 this increase was 70 per cent.⁴⁴ The more that raw materials cost, the more that replacing a home costs.

Similarly, there have been years of labour shortages in the construction sector. Since 2017, job vacancies among skilled trades in residential construction have grown at an annual rate of 11 per cent per year.⁴⁵ Without a sufficient labour force, projects get delayed, or left uncompleted, increasing costs.

³⁸ Red Cross Canada. "Wildfires: Information and Facts." Accessed 2026. <https://www.redcross.ca/how-we-help/emergencies-and-disasters-in-canada/types-of-emergencies/wildfires/wildfires-information-facts>.

³⁹ Government of Canada, Natural Resources Canada. "Climate Change and Wildland Fire." Accessed 2026. <https://natural-resources.canada.ca/forest-forestry/wildland-fires/climate-change-wildland-fire>.

⁴⁰ Ibid.

⁴¹ Insurance Bureau of Canada. "Insured Losses from Jasper Wildfire Rise to Just Under \$1.3 Billion." 2024. <https://www.ibc.ca/news-in-sights/news/insured-losses-from-jasper-wildfire-rise-to-just-under-1-3-billion>.

⁴² Insurance Bureau of Canada. "Latest Hailstorm in Calgary Causes \$92 Million in Insured Damage." 2024. <https://www.ibc.ca/news-in-sights/news/latest-hailstorm-in-calgary-causes-92-million-in-insured-damage>.

⁴³ Government of Canada, Environment and Climate Change Canada. "Warm Season Weather Hazards: Hail." Accessed 2026. <https://www.canada.ca/en/environment-climate-change/services/seasonal-weather-hazards/warmseason-weather-hazards.html#toc6>

⁴⁴ Statistics Canada. "Building construction price indexes, by type of building and division". 2026. <https://www150.statcan.gc.ca/t1/tbl1/en/cv.action?pid=1810028901>

⁴⁵ The Conference Board of Canada. "Building Under Pressure." Ottawa: The Conference Board of Canada, 2025

BuildForceCanada expects the residential construction sector to have a shortfall of 67,000 workers by 2034, due to projected growth in employment being insufficient to displace rising demand and retirement.⁴⁶

3.2.2 Exposure

Exposure refers to the total dollar value of assets that an insurer is contractually obligated to cover in the event of a peril. A 2026 report released by major global reinsurer SwissRe determined that 80 per cent of the global weather-related insured loss trend since 1970 is due to increased exposure.⁴⁷ The remainder of that increase is due to other inflationary factors, and increased risk of extreme weather events occurring.

Naturally, as the density of residential and commercial infrastructure increases, so too does the potential for higher insured losses when disasters occur. Canada's population rose from around 30 million people in 2000 to 40 million in 2026,⁴⁸ and 82 per cent of these people live in urban areas.⁴⁹ In 2025, there was \$21 trillion worth of insured property in Canada at risk of being impacted by extreme

weather events. This was up from \$19 trillion the previous year, a \$2 trillion increase.⁵⁰

The issue of exposure is particularly relevant when homes are built in high-risk areas. Calgary is subject to such high insured losses from hail because urban construction expanded areas with a high-risk for hail storms. Comparing satellite imagery from today and 40-years ago, the financial services company Aon found that if Calgary's large 2024 storm had occurred 40 years ago, it would've almost exclusively impacted agricultural land. Due to urban development, 130,000 claims of damaged property were made in 2024.⁵¹

3.2.3 Reinsurance

If insurance is the industry upholding the property market, reinsurance is the industry supporting insurance, and everything below it. Every insurer takes out reinsurance to protect itself against major payout events. Both the cost of reinsurance and how insurers choose to use it can affect the premiums homeowners pay.

⁴⁶ BuildForce Canada. 2025 Canada's Construction and Maintenance Looking Forward. Ottawa: BuildForce Canada, 2025. <https://www.buildforce.ca/wp-content/uploads/2025/03/2025-Canada-Const-Maint-Looking-Forward.pdf>.

⁴⁷ SwissRe. Sigma 1/2026: Natural Catastrophes. Zurich: SwissRe, 2026. <https://www.swissre.com/dam/jcr:4b5669a3-b7e2-4682-bf96-a597085958a6/sigma-1-2026-natural-catastrophes-report.pdf>.

⁴⁸ Worldometers. "Canada Population." Accessed 2026. <https://www.worldometers.info/world-population/canada-population/>.

⁴⁹ World Bank. "Urban Population (% of Total Population) – Canada." Accessed 2026. <https://data.worldbank.org/indicator/SP.URB.TOTL.IN.ZS?locations=CA>.

⁵⁰ CatIQ. "CatIQ Issues Annual Update of Insurance Industry Exposure Database for Canada." April 29, 2025. <https://public.catiq.com/2025/04/29/catiq-issues-annual-update-of-insurance-industry-exposure-databasefor-canada-4/>.

⁵¹ AON. 2025 Climate and Catastrophe Insight. Chicago: AON, 2025. <https://assets.aon.com/-/media/files/aon/reports/2025/2025-climate-catastrophe-insight.pdf>. See also: CatIQ. "CatIQ Issues Annual Update of Insurance Industry Exposure Database for Canada." June 20, 2024. <https://public.catiq.com/2024/06/20/catiq-issues-annual-update-of-insurance-industry-exposure-databasefor-canada-3/>.

Insurance companies renew their reinsurance annually. During the 2023 renewal cycle, catastrophe reinsurance premiums for property in Canada rose by an estimated 25-30 per cent for portfolios that hadn't experienced major losses, and up to 70 per cent for those that had.⁵²

Reinsurers also shape global understandings of risk. As international companies involved in extreme weather events worldwide, they have an unparalleled ability to collect and interpret data. They have historically created and disseminated knowledge about climate change, contributing to global scientific understanding of the issue.⁵³ The former general manager of SwissRe first

acknowledged that climate change might be increasing insurance costs as far back as 1929.

"In view of the persistently unfavourable course of the hail business, we wonder whether the deeper causes are not to be sought in certain climatic changes, which make the present tariff rates based on earlier experience appear inadequate." - Erwin Hürlimann, 1929⁵⁴

The risk assessments held by reinsurance companies dictate pricing for insurers, which in turn shapes how insurers themselves view risk. In other words, if a reinsurance company thinks there's a problem, insurance companies will think there's a problem too.



⁵² Insurance Bureau of Canada. "Personal Property Report." Toronto: IBC, 2025. <https://a.storyblok.com/f/339220/x/ba2a5efb46/personal-property-report.pdf>.

⁵³ Röper, Nils, and Sebastian Kohl. "Bookkeepers of catastrophes: The overlooked role of reinsurers in climate change debates." *Global Environmental Change* 89 (2024): 102931.

⁵⁴ SwissRe. 2021 Business Report. Zurich: SwissRe, 2021. <https://www.swissre.com/dam/jcr:3ac98213-d094-4239-9c7e-280d80eaa98e/2021-business-report-doc-en.pdf>.

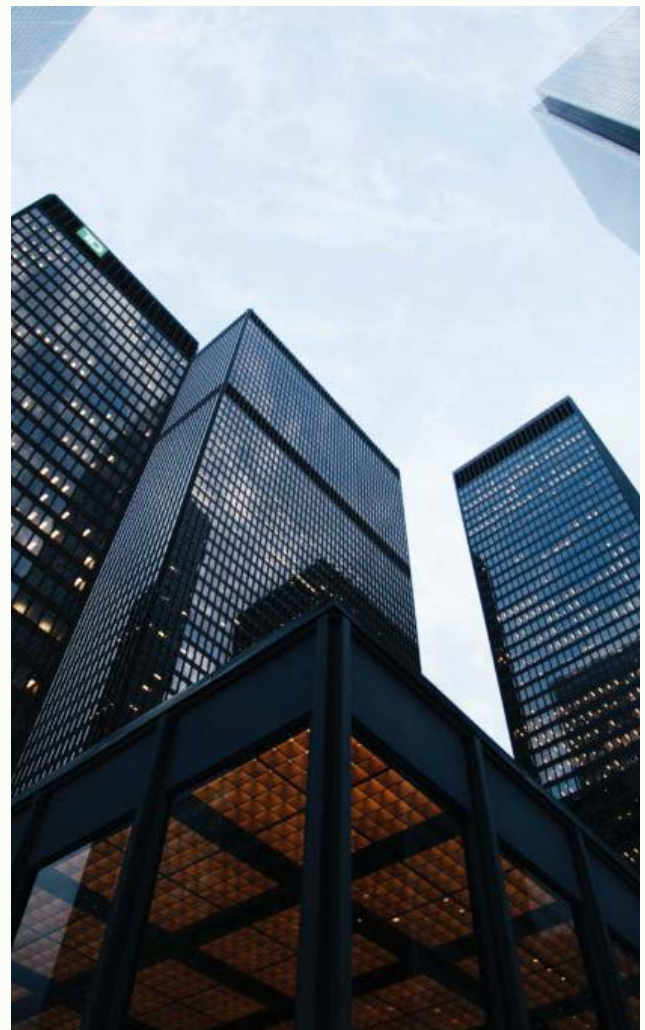
3.2.4 Company Profitability

The final reason that premiums are increasing is because most insurance companies are businesses, and are thus required to keep making a profit. In a perfect world, there is a good balance between insurance profitability and insurance affordability.⁵⁵ Insurance companies have limited options to remain profitable: they can raise premiums, restrict coverage, increase deductibles and limitations, or exit the market.

Profitability in the insurance sector is driven primarily by the difference between premiums collected and claims paid out. This is summarised by a combined ratio, showing the relationship between premiums earned and costs paid. Any combined ratio under 100 indicates profitability.

For example, in 2024, Canada's biggest insurance company Intact had an overall combined ratio of 92.2%. This means that for every dollar it collected in premiums, 92.2 cents were paid out in costs, and the company profited 7.8 cents. Occasionally in company news releases, the company will refer to profitability actions, such as "profitability actions, including higher earned premiums" in their Q4 2024 Results.⁵⁶ Intact has increased shareholder dividends for twenty one years in a row.⁵⁷

This reality raises important questions about the long-term role of private insurance in the climate-changing world. However, interrogating this question is outside the scope of this report. It is enough to acknowledge that the perceived requirements for insurance companies to remain profitable is a major factor in increased consumer costs.



⁵⁵ Morningstar DBRS. "Canadian P&C Insurance Outlook 2024: Market Conditions Supportive of Premium Rate Increases." 2024. <https://dbrs.morningstar.com/research/425120/canadian-pandc-insurance-outlook-2024-market-conditionssupportive-of-premium-rate-increases>.

⁵⁶ Intact Financial Corporation. Q4 2024 Results Press Release. Toronto: Intact Financial Corporation, 2025. <https://www.intactfc.com/press-releases/1/intact-financial-corporation-reports-q4-2024-results>.

⁵⁷ Intact Financial Corporation. "Earnings Call Highlights: Robust Outperformance." The Globe and Mail, 2025. <https://www.theglobeandmail.com/investing/markets/stocks/IFCZF/pressreleases/217867/intact-financial-earnings-call-highlights-robust-outperformance/>.

Section 4: Results and Discussion

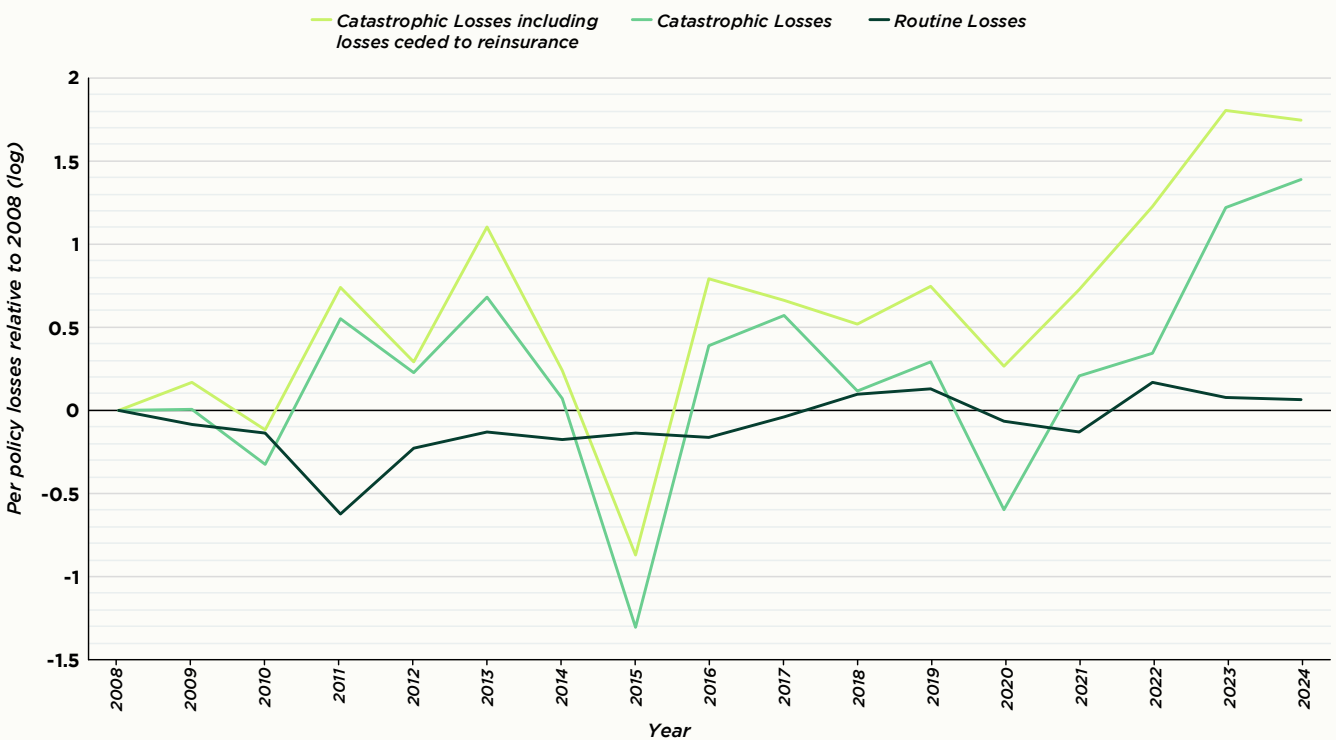
4.1 Climate Attribution Estimates

Our analysis yields three primary quantitative findings regarding climate change’s impacts on the costs borne by Intact Insurance, Canada’s largest home insurance company. The trends leading to these numbers were also observable in data from Definity Insurance. A breakdown of Definity’s numbers can be viewed in the appendix of the research paper linked to earlier in this report. All following numbers are in 2024 Canadian dollars.

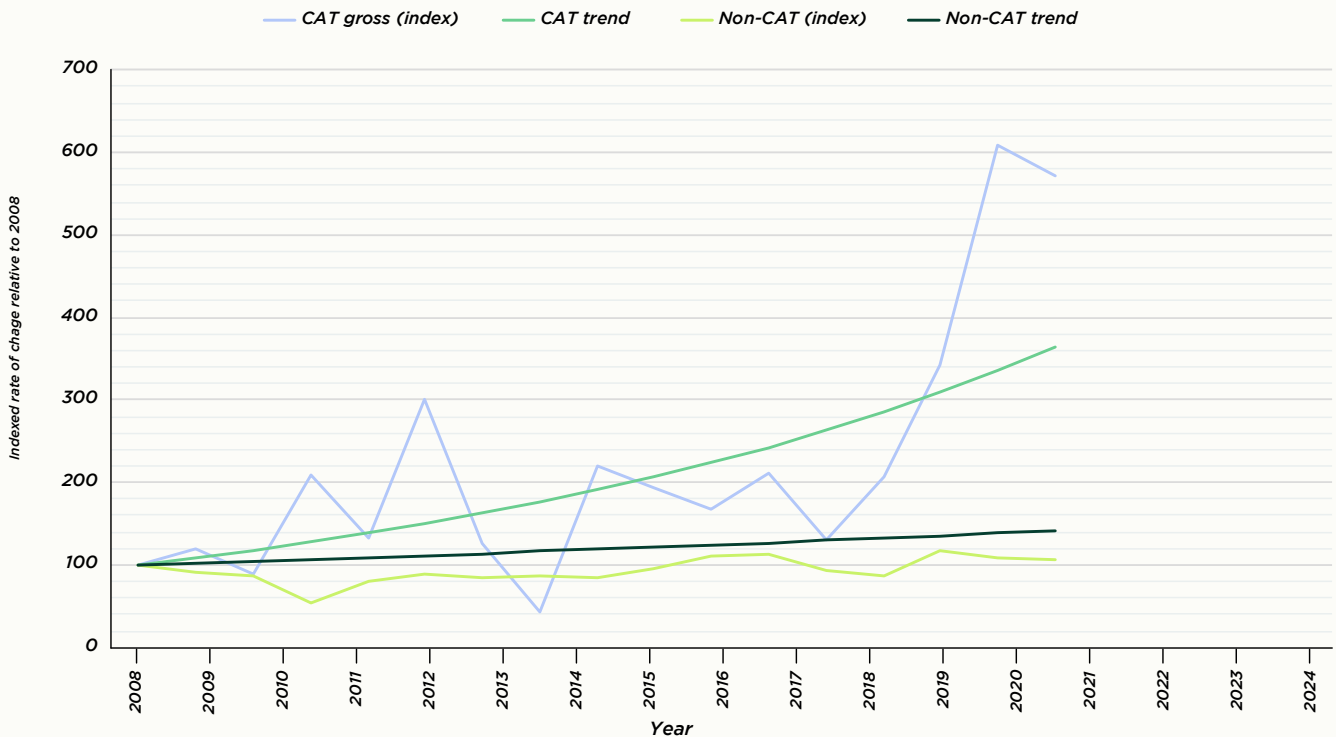
1. Catastrophic Loss Growth

Catastrophic losses (most commonly referred to as CAT losses) per policy have increased by 11.9 per cent annually from 2008-2024. This figure includes both losses retained by Intact and losses passed on to reinsurers, which together give a fuller picture of total climate-related costs before they are redistributed through the reinsurance market. In absolute terms, catastrophic losses per policy were \$64 in 2008, and \$386 in 2024 (both figures in 2024 CAD). This represents a \$322 increase across sixteen years.

CATASTROPHIC LOSSES INCLUDING LOSSES CEDED TO REINSURANCE, CATASTROPHIC LOSSES AND ROUTINE LOSSES



GROWTH OF CATASTROPHIC LOSSES VS NON-CATASTROPHIC LOSSES (2008-2024)



Comparing this growth rate to non-catastrophic losses, which increased at 1.97 per cent annually, we estimate that 9.7 percentage points of the growth in catastrophic losses is attributable to the impacts of climate change and increased extreme weather events, rather than general inflationary factors. This is derived from the difference between the growth in catastrophic losses per policy (11.9 per cent) and non-catastrophic losses (1.97 per cent), adjusted for rounding. This translates into climate change being responsible for 92.7 per cent of the cumulative dollar increase in catastrophic losses over this period.

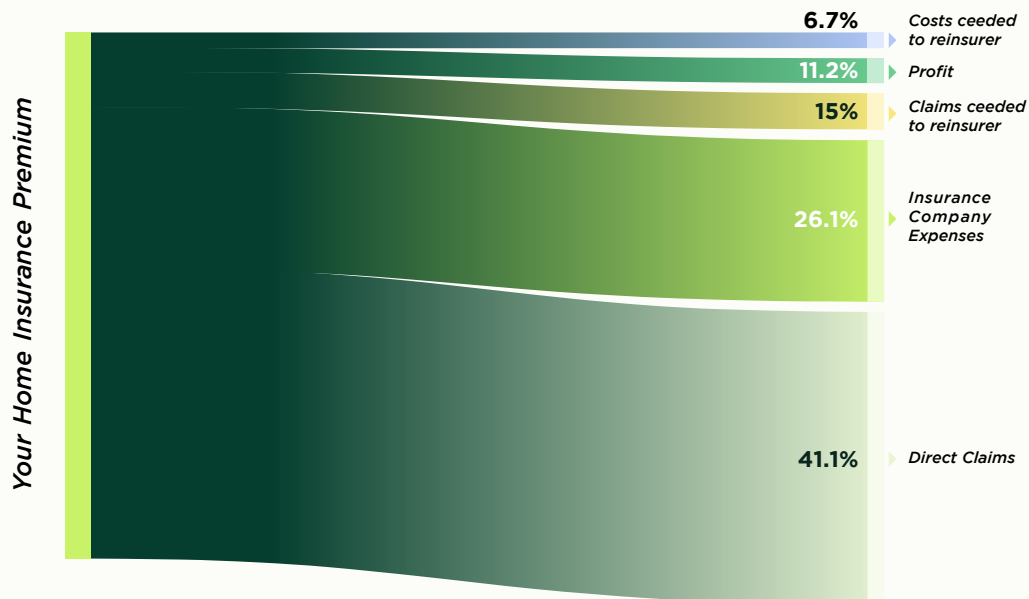
Therefore the impacts of climate change are responsible for \$299 more per year per home insurance policy in 2024 than in 2008.

2. Premium Passthrough

Analysis of Intact's financial ratios reveals that increased catastrophic losses generate premium increases through various channels. In 2024, for every dollar collected in premiums (before reinsurance), insurers allocated 41.1 per cent to direct claims, 26.1 per cent to operating expenses, 15 per cent to reinsurance ceded claims, 6.7 per cent to reinsurance costs and 11.2 per cent to profit.

An additional dollar of claims will lead to more than an additional dollar of costs for the insurer, through expenses. Suppose that an insurer predicts that expected claims will increase by \$100 for a certain household. The insurer raises the premium for that household to cover the increase in expected claims and expenses, as well as maintain its same

BREAKDOWN OF WHERE CUSTOMER PREMIUMS ARE SPENT



profitability. In this case, the insurer would raise premiums by \$178. Of this, \$73 would go towards the claims paid by the insurer, \$47 would go toward expenses paid by the insurer, \$39 would go to the reinsurer and \$20 would go toward profit for the insurer.

3. Total Climate-Driven Premium Impact

Combining the findings from section 1 and 2 above, we know that climate change is costing insurance companies \$299 per policy in 2024

compared to 2008. Each dollar of losses required Intact to increase premiums by \$1.78 in order to keep their profits and costs stable. Therefore the impacts of climate change have increased premiums by \$533 over the study period of 2008-2024.

In 2008, Intact was getting \$773 of premium per policy. In 2024, it was earning \$1728. Of this \$979 increase, we attribute 71.2 per cent of that increase to climate change.

	2008 Value (2024\$)	2024 Value (2024\$)	Overall Change (\$)	Overall Change (%)	Climate Driven Change (\$)
Catastrophic Losses	\$64	\$386	\$322	468%	\$299
Premium Impact	\$750	\$1728	\$979	71.2%	\$533

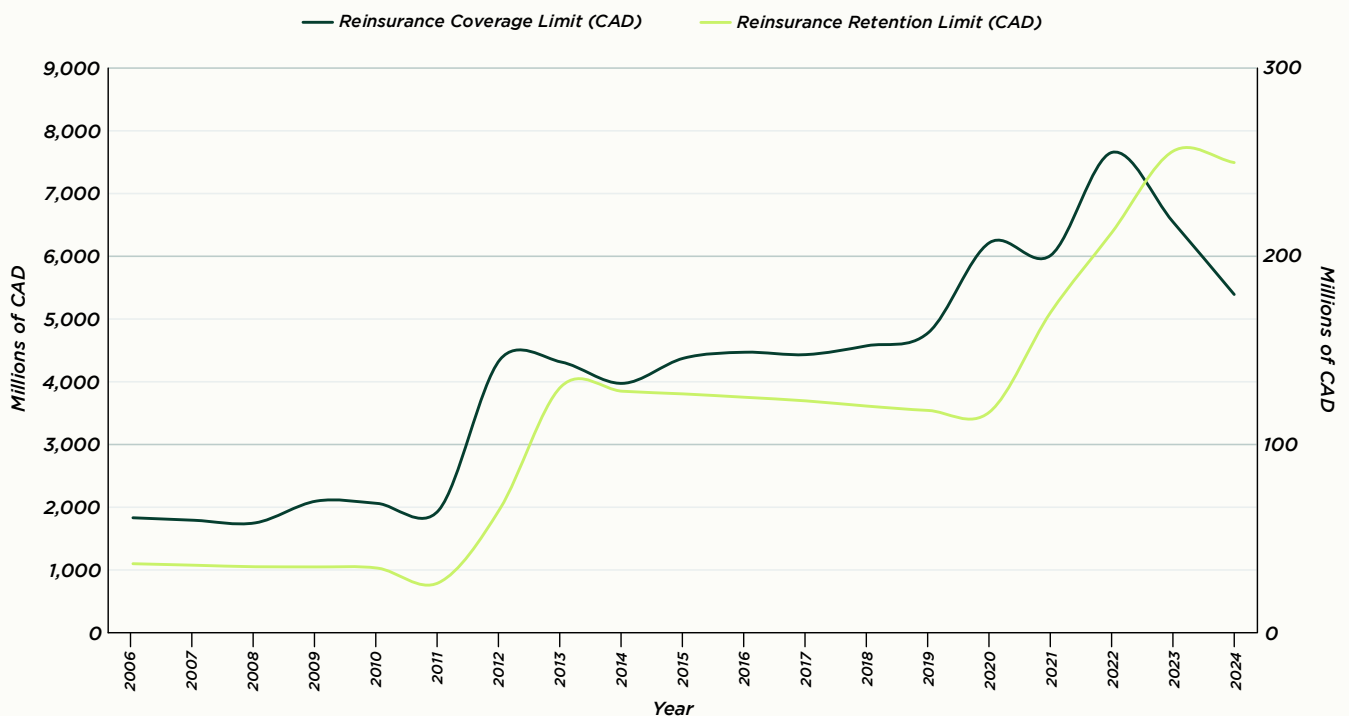
4.2 The Growing Role of Reinsurance

An important finding of this analysis is that much of the climate-driven cost increase occurs due to reinsurance costs, rather than direct insurer losses.

Premiums ceded to reinsurers were 10.6 per cent of all earned premiums in 2024. Simultaneously, the proportion of catastrophic losses covered by reinsurance has increased dramatically, with reinsurers responsible for 51.9 per cent of catastrophic losses in 2024. This indicates an increased reliance on reinsurance, and reflects two trends in Intact's approach to risk management. First, the reinsurance retention threshold (the maximum loss an insurer bears before reinsurance coverage begins) has increased substantially since 2006.

Second, coverage limits – the maximum payout by reinsurers – have also increased. This dual increase suggests that insurers are covering more day-to-day catastrophic losses themselves, and shifting reinsurance to ensure adequate protection is in place in the case that a low-probability but extremely high cost event occurs (often called a tail event). Furthermore, insurers' forward-looking expected catastrophic losses have increased 11.5 per cent annually from 2017-2024. This is an annually reported figure, demonstrating how much Intact thinks that catastrophic weather events will cost them in the year ahead. This indicates that insurers are updating their risk models to anticipate accelerating climate impacts, which affects premium pricing before those impacts are materialized through losses.

REINSURANCE COVERAGE LIMIT (CAD) AND REINSURANCE RETENTION LIMIT (CAD)



Section 5: Recommendations

Our analysis demonstrates that climate change has already imposed substantial costs on Canadian homeowners, accounting for \$533 in total per policy premium increase between 2008-2024. With catastrophic losses growing at 11.2 per cent annually and insurers forward-looking risk assessments projecting even faster growth, these cost pressures will get worse. These cost pressures may lead to an insurance crisis, wherein homeowners will not be able to access insurance either due to unaffordability or unavailability. Such an instance would risk the ability of people to access mortgages and buy and sell homes.

The way out of the impending insurance crisis is not clear. There are limited routes: increase premiums, reduce the amount of properties at risk, or slow down climate change.

The findings of this report underscore that climate change is already having significant, negative impacts on Canadians' home insurance costs. The insurance industry is a strong advocate for climate adaptation as a means to reduce the financial risks to both

homeowners and the industry. Adaptation is an important part of the puzzle. It helps individuals and communities to be more resilient in the face of rising extreme weather. However, adaptation treats the symptoms, rather than the root cause. Any solution to the insurance crisis must focus on climate change mitigation and reducing greenhouse gases through phasing out fossil fuels.

The recommendations to mitigate the climate-related insurance crisis are:

- for the federal government to strengthen climate policies to reduce emissions;
- for federal and provincial regulations to mandate climate-related transition planning and disclosure;
- for insurance companies to take action against fossil fuel companies to recoup costs;
- and for insurance companies to stop underwriting and investing in fossil fuel companies, while focusing their investments on mitigation as well as adaptation.



5.1 Align Federal Climate Policy with Adaptation Efforts

The federal government must reconcile the fundamental tension between its climate adaptation programs, and its recent rollbacks of emissions reduction policies. The Government of Canada currently operates multiple initiatives aimed at improving resiliency and protecting communities from the impacts of extreme weather, including the \$5.3 billion Disaster Mitigation and Adaptation Fund, the Disaster Financial Assistance Arrangements program, the First Nation Adapt Program, and the proposed National Flood Insurance Program.⁵⁸

At the same time the Government has removed policies designed to help Canada meet the Paris Agreement obligation of limiting warming to 1.5 degrees Celsius. In the last year, it has scrapped the oil and gas emissions cap, repealed the electric vehicle sales mandate, increased Canada Infrastructure Bank funding by \$10 billion

to fund projects including new fossil fuel infrastructure, and suspended the clean electricity regulations in Alberta.⁵⁹ An independent analysis released in February 2026 confirmed that the federal government is not on track to meet any of its climate targets, and that it is actively moving away from them.⁶⁰

The economic case for emissions reduction is clear from an insurance perspective. Every single tonne of emissions avoided reduces the likelihood of future extreme weather events, and the associated insurance costs. The federal government's current investments in adaptation are attempting to address the symptoms, rather than the root cause, although it is also falling short on delivering adequate adaptation policies. The government must demonstrate policy coherence by reinstating climate mitigation measures and ensuring all infrastructure investments align with reducing Canada's greenhouse gas emissions. Investing in adaptation while worsening the underlying crisis is fiscally irresponsible and undermines the effectiveness of resilience spending.

⁵⁸ Government of Canada, Housing, Infrastructure and Communities Canada. "Disaster Mitigation and Adaptation Fund." Accessed 2026. <https://housing-infrastructure.canada.ca/dmaf-faac/details-eng.html>. See also: Government of Canada, Public Safety Canada. "Disaster Financial Assistance Arrangements." Accessed 2026. <https://www.publicsafety.gc.ca/cnt/mrgnc-mngmnt/rcvr-dsstrs/dsstr-fnnc-sstnc-rrngmnts/index-en.aspx>. See also: Government of Canada, Crown-Indigenous Relations and Northern Affairs Canada. "First Nation Adapt Program." Accessed 2026. <https://www.rcaanc-cirnac.gc.ca/eng/1481305681144/1594738692193>. See also: Government of Canada, Public Safety Canada. "National Flood Insurance Program." Parliamentary briefing materials, March 2, 2021. <https://www.publicsafety.gc.ca/cnt/trnsprnc/brfng-mtrls/prlmntry-bndrs/20210302/018/index-en.aspx>.

⁵⁹ Government of Canada. Budget 2025: A New Deal for Canadians. Ottawa: Department of Finance, 2025. <https://budget.canada.ca/2025/report-rapport/pdf/budget-2025.pdf>. See also: Government of Alberta. Memorandum of Understanding between the Government of Canada and the Government of Alberta on Energy Collaboration, 2025. <https://open.alberta.ca/dataset/ceb83f4b-25ba-4781-b09d-5b6ac7725972/resource/1c9a9826-fd06-4150-ad54-5c2a94ea8383/download/exc-mou-goc-and-go-a-energy-collaboration.pdf>.

⁶⁰ Canadian Climate Institute. 440 Megatonnes: Independent Assessment 2026 – 2025 Progress Report on the 2030 Emissions Reduction Plan. February 2026. <https://climateinstitute.ca/wp-content/uploads/2026/02/Climate-Institute-440-Megatonnes-Independent-Assessment-2026-2025-Progress-Report-2030-Emissions-Reduction-Plan.pdf>.

5.2 Establish Legal Frameworks for Climate-Related Subrogation Claims

Emissions from the oil and gas sector are growing.⁶¹ The sector is responsible for the emissions which are making extreme weather events more severe and more likely to occur. As such, it follows that polluters should bear some responsibility for paying for damages that insurance companies have to pay. Multiple jurisdictions, including Hawai'i and Rhode Island are pursuing ways for insurance companies to recoup costs from fossil fuel companies for the damages caused by climate change.

The principle of subrogation allows insurance companies to recover damages that they have had to pay out to an insured party, by suing the responsible party. In 2018, an electricity

line owned by Pacific Gas and Electric (PG&E) created sparks which caused devastating wildfires in Northern California. This event was directly caused by faulty PG&E equipment. As a result of multiple insurance subrogation claims, PG&E eventually paid out over \$11 billion in damages to those harmed by the fire.⁶² In this case the party that caused the damage, through willful negligence in this instance, was ultimately responsible to pay up.

Governments and insurance companies should work together to create pathways to allow insurance companies to recoup costs from fossil fuel companies for insured damages. Attribution science provides an evidentiary basis on which to base these claims, establishing a connection between fossil fuel emissions and increased risk of occurrence of extreme weather events. This approach could help stabilize premiums for homeowners, while holding polluters accountable for damages they are causing.



⁶¹ Government of Alberta. Memorandum of Understanding between the Government of Canada and the Government of Alberta on Energy Collaboration, 2025. <https://open.alberta.ca/dataset/ceb83f4b-25ba-4781-b09d-5b6ac7725972/resource/1c9a9826-fd06-4150-ad54-5c2a94ea8383/download/exc-mou-goc-and-go-a-energy-collaboration.pdf>.

⁶² PG&E Corporation. "PG&E Executes Definitive Agreement Resolving Insurance Subrogation Claims Relating to 2017 and 2018 Wildfires." Press release, 2019. <https://investor.pgecorp.com/news-events/press-releases/press-release-details/2019/PGE-Executes-Definitive-Agreement-Resolving-Insurance-Subrogation-Claims-Relating-to-2017-and-2018-Wildfires/default.aspx>.

Case Studies

Hawai'i

The Hawaiian island of Maui experienced severe wildfires in 2023, causing over \$3 billion in insured damages.⁶³ A year later, insurance costs had spiked by more than 1000% in some cases.⁶⁴ In 2025, the House and Senate in Hawai'i passed a joint resolution to encourage insurance companies to recoup costs from fossil fuel companies to limit premium increases passed to homeowners.

BE IT RESOLVED by the Senate of the Thirty-third Legislature of the State of Hawaii, Regular Session of 2025, the House of Representatives concurring, that this body encourages Hawaii insurers and the Hawaii Property Insurance Association to reduce insurance costs on local residents by pursuing subrogation claims against polluters who knowingly engaged in misleading and deceptive practices regarding the connection between their products and climate change; - HI SCR198⁶⁵

This resolution recognises the ways in which fossil fuel companies have probably known about the impacts of fossil fuels on the climate, and continued expanding their

production volumes. In February 2026, the Senate advanced Senate Bill 3000,⁶⁶ which would enable the State Attorney General to bring a civil action in the name of the people of the State to recover costs associated with climate change.

Rhode Island

In March 2026, the state of Rhode Island introduced a bill to limit insurance companies ability to “profit from activities which put their insured at risk of substantial loss, or which undermine the physical and financial wellbeing of their insured”.⁶⁷ In practice, the bill is designed to prevent insurance companies from investing their customers' premiums in fossil fuel companies, and from underwriting any new fossil fuel projects.

At the time of writing, this bill was only just introduced into the House, but it provides an example for what jurisdictions can do to protect homeowners and make polluters pay.

⁶³ InsuranceNewsNet. “Over 10,000 Claims Due to Maui Fires, Top \$3.29B in Losses and Damage.” 2023. <https://insurancenewsnet.com/oarticle/over-10000-claims-due-to-maui-fires-top-3-29b-in-losses-and-damage>

⁶⁴ Governor of Hawai'i. “Gov. Green Signs Emergency Proclamation to Address Condo Insurance Crisis.” Accessed 2026. <https://governor.hawaii.gov/newsroom/office-of-the-governor-news-release-gov-green-signs-emergency-proclamation-to-address-condo-insurance-crisis/>.

⁶⁵ Hawai'i State Legislature. Senate Concurrent Resolution 198, Thirty-Third Legislature, Regular Session of 2025. <https://legiscan.com/HI/text/SCR198/2025>.

⁶⁶ Hawai'i State Legislature. Senate Bill 3000, 2026. <https://legiscan.com/HI/bill/SB3000/2026>.

⁶⁷ Rhode Island House of Representatives. House Bill 8219, 2026. <https://webserver.rilegislature.gov/BillText26/HouseText26/H8219.pdf>.

5.3 Transition Planning for the Insurance Industry

Both Intact and Definity's company publications detail their investments and approaches to building resiliency against climate change.⁶⁸ A recent government study undertaken by the Standing Committee on Environment and Sustainable Development – entitled “Protecting Canadian Residents from Extreme Weather Events” – received submissions by two insurance companies, and the Insurance Bureau of Canada. All three submissions were absent of any mention of climate mitigation efforts, or how insurance companies themselves can play a part in

this by how they invest and underwrite. The recommendations presented by Wawanesa, the Co-operators and the IBC are all important recommendations, but they don't tell the entire story.⁶⁹ The reality is that no amount of adaptation will protect the insurance industry or its policyholders from climate change if it keeps getting worse.

Insurance companies in Canada are currently battling for two opposing teams: they are actively trying to invest in climate adaptation and reduce their exposure to climate-related risks, but they are also continuing to invest their assets in oil and gas companies through their investment divisions and underwriting.



⁶⁸ Intact Financial Corporation. “Supporting Resiliency.” Accessed 2026. <https://www.intact.ca/en/keep-it-intact/supporting-resiliency>. See also: Definity Financial. “Environment and Climate Change.” Accessed 2026. <https://www.definityfinancial.com/English/sustainability/environment-climate-change/default.aspx>.

⁶⁹ Co-operators Group. Brief submitted to the House of Commons Standing Committee on Environment and Sustainable Development, 2025. <https://www.ourcommons.ca/Content/Committee/451/ENVI/Brief/BR13966333/br-external/CoOperatorsGroup-e.pdf>. See also: Wawanesa Mutual Insurance Company. Brief submitted to the House of Commons Standing Committee on Environment and Sustainable Development, 2025. <https://www.ourcommons.ca/Content/Committee/451/ENVI/Brief/BR13936028/br-external/WawanesaMutualInsuranceCompany-e.pdf>. See also: Insurance Bureau of Canada. Brief submitted to the House of Commons Standing Committee on Environment and Sustainable Development, 2025. <https://www.ourcommons.ca/Content/Committee/451/ENVI/Brief/BR13915677/br-external/InsuranceBureauOfCanada-e.pdf>.

The first step of credible transition planning for the insurance industry is for it to stop investing in and underwriting fossil fuels. The figure below outlines a small sample of

insurance companies offering P&C insurance in Canada, listing their current fossil fuel holdings and climate-related policies, particularly related to underwriting.

Company	Fossil Fuel Holdings (Q4 2025, in million USD)	Climate Policies
Intact Investment Management Inc.	529.8 ¹	Some exclusions in place <ul style="list-style-type: none"> • Arctic oil and gas exploration, extraction, and production • Standalone oil sands accounts • Thermal coal mining • Utilities with greater than 25% revenues from coal power generation² Other policies in place explicitly to continue working with oil and gas clients. ³ No credible climate transition plan
Addenda Capital Inc (Co-operators Insurance)	369.9 ⁴	Commitments to phase out unabated thermal coal by 2030, and to increase investments in climate solutions by 2030. Otherwise committed to work with high-emissions clients. ⁵ No credible climate transition plan

¹ FinTelCo. "Intact Investment Management Inc." Accessed 2026. <https://fintelco.ca/i/intact-investment-management>.

² Intact Financial Corporation. 2024 Social Impact and ESG Report. Toronto: Intact Financial Corporation, 2025. https://www.intactfc.com/presentations/IFC-2024-Social-Impact-and-ESG-Report_EN.pdf.

³ Intact Financial Corporation. "Oil and Gas Underwriting Policy." Accessed 2026. <https://www.intactfc.com/intact-investment-management-oil-and-gas-policy>.

⁴ FinTelCo. "Addenda Capital Inc." Accessed 2026. <https://fintelco.ca/i/addenda-capital>.

⁵ The Co-operators. "Climate Policy Update." September 23, 2025. <https://www.cooperators.ca/en/about-us/newsroom/2025-09-23>.

Company	Fossil Fuel Holdings (Q4 2025, in million USD)	Climate Policies
Aviva	1,900 ⁶	Thresholds from financing or underwriting <ul style="list-style-type: none"> • Thermal coal or coal-fired power generation companies • Unconventional fossil fuel companies Has a time limit of 36 months for engaging with high-emitting clients before ceasing business. ⁷ Does have a credible climate transition plan ⁸
Fédération des caisses Desjardins du Québec (Desjardins)	1,300 ⁹	Exclusion from financing <ul style="list-style-type: none"> • Fossil energy projects in the Arctic • Fossil energy projects in ultra-deep waters • New infrastructure development projects (extraction sites, pipelines, refineries). • Large companies in the global oil and gas sector unless they are committed to the energy transition or to finance their transition projects.¹⁰ Does have a transition plan ¹¹

⁶ FinTelCo. "Aviva." Accessed 2026. <https://fintelco.ca/i/aviva>.

⁷ Aviva. "Taking Climate Action." Accessed 2026. <https://www.aviva.com/sustainability/taking-climate-action/>.

⁸ Zero Tracker. "Aviva." Accessed 2026. <https://zerotracker.net/companies/aviva-com-0235>.

⁹ FinTelCo. "Fédération des caisses Desjardins du Québec." Accessed 2026. <https://fintelco.ca/i/federation-des-caisses-desjardins-du-quebec>.

¹⁰ Desjardins. Position on the Energy Sector. Montreal: Desjardins, 2024. <https://www.desjardins.com/content/dam/pdf/en/about-us/community/sustainable-development/reports/position-energy-sector.pdf>.

¹¹ Desjardins. 2024 Climate Action Report. Montreal: Desjardins, 2024. <https://www.desjardins.com/content/dam/pdf/en/about-us/community/sustainable-development/reports/2024-climate-action.pdf>.

An analysis from Oxford University found that while Intact Financial Corporation does have an active net-zero target, it has no transition plan in place as to how the company will align its business activities with meeting this.⁷⁰ Other companies listed above were not included in the Oxford analysis.

Transition planning is a vital strategic tool to ensure companies are best prepared for the risks and uncertainties that come with climate change. However, there is no overarching mandatory transition planning framework in Canada. There are no guidelines or requirements on what should be included, leaving companies to adopt patchwork strategies.⁷¹

Under this recommendation, the Office of the Superintendent of Financial Institutions (OSFI) should advance transition plan requirements, and insurance companies should design and implement credible transition plans as soon as possible.

Ongoing fossil fuel investments are the most obvious indication that a company requires better transition planning as it represents a core tension. Insurers who are serious about adaptation should also be serious about mitigation and transition planning.



⁷⁰ Zero Tracker. "Intact Financial Corporation." Accessed 2026. <https://zerotracker.net/companies/intact-financial-com-1062>.

⁷¹ Business Future Pathways. Pathways to Competitiveness: Executive Summary. October 2025. <https://www.businessfuturepathways.ca/wp-content/uploads/2025/10/Pathways-to-competitiveness-execsumm-EN.pdf>.

5.4 Require better data disclosure and transparency from insurance companies

Our research encountered substantial data limitations that hindered comprehensive analysis. Key metrics used are disclosed by only a small number of publicly traded insurers. Even basic information such as catastrophic versus non-catastrophic loss breakdowns is unavailable for most insurers.

The limitations of this research underscores that data availability is a major issue in the Canadian insurance landscape. Unlike auto insurance, where companies must disclose rate changes to regulators, home insurance operates with minimal transparency requirements, creating an information imbalance that disadvantages consumers and policymakers. Homeowners and policy makers alike only know the extent of rate increases after such hikes have occurred.

Neither homebuilders nor current prospective homeowners have adequate access to information regarding their risk profile. Only 6 per cent of Canadians living in a flood zone are aware that they live in a flood zone, and only one-in-five people have reviewed community flood maps.⁷² Municipalities don't have access

to enough information to know if they are approving new developments in flood zones.⁷³ Only insurance companies which have bought access to proprietary risk databases know the full extent of risk. Relevant governments should publish up-to-date hazard maps, equipping people with equal information about their homes and risk levels.

Increased transparency may also allow homeowners to understand why their rates are increasing. Particularly when insurance companies are encouraging homeowners to invest in protecting their homes against certain weather related events, it would benefit consumers to understand more why their rates are increasing.

In July 2025, Investors for Paris Compliance submitted a request to Ontario's Financial Regulatory Services Authority (FRSA), request that:

*"FSRA considers an initial response that requires pooled public disclosure by insurance companies active in Ontario with regards to rate hikes and rationale, specific areas determined to be higher risk due to flood and fire mapping, and their own net zero activities, hosted on the FSRA website. This would begin to build an accessible base of knowledge where none now exists."*⁷⁴

⁷² University of Waterloo, Partners for Action. Canadian Voices on Flood Risk 2020. Waterloo: University of Waterloo, 2020. <https://uwaterloo.ca/partners-for-action/past-projects/canadian-voices-flood-risk-2020>.

⁷³ Minano, Andrea, Jason Thistlethwaite, and Daniel Henstra. "Evaluating a public-private data-sharing platform for improving flood insurance availability and affordability in Canada." *Regional Environmental Change* 24, no. 3 (2024): 102.

⁷⁴ Investors for Paris Compliance. "Our Complaint to Ontario Insurance Regulator." 2025. <https://www.investorsforparis.com/our-complaint-to-ontario-insurance-regulator/>.

This is exactly the type of information sharing and disclosure that would start to better equip Canadians with the information they need about their own homes.

5.5 Reduce risks by changing how and where homes are built

The data gaps identified in Recommendation 4 have particularly severe consequences at the planning stage, where decisions about new housing developments lock in risk exposure for decades to come. Research from the Canadian Climate Institute found that more than 540,000 homes could be built in areas of flood hazard by 2030, resulting in up to \$2 billion every year in additional damages to housing in Canada from flooding alone.⁷⁵ It also found that wildfire impacts on potential new housing could double the current annual impact.

The recommendations in the Canadian Climate Institute report that we emphasise are:

1. Federal, provincial and territorial governments should steer housing and infrastructure investment to low-hazard areas and away from high-hazard areas
2. Governments should strengthen land use policies to direct new housing away from high-hazard zones

3. Governments should urgently update hazard information and mandate its disclosure in real estate transactions.⁷⁶

However, the issue of where homes should be built isn't limited to ensuring homes aren't built in harm's way. By increasing the amount of impermeable surface area, building homes on "greenfield" land, especially in low-density patterns and formats increases the risk exposure of homes elsewhere in the watershed. An example of this was making headlines in Ontario, in late 2025. A proposed development on the outskirts of the Ontario suburb of Pickering sparked debate as it would be placed on an area of the watershed that is vital for stormwater absorption. Extending suburban development outwards onto this site is projected to cause a 113 per cent increase in peak flood flows, increasing flood risk for the nearby town of Ajax.⁷⁷ To ensure excess water can be absorbed into the ground drain away gradually and mitigate flood risk, development must be planned to minimize outward expansion and preserve permeable farmland, forest, grasslands and wetlands

As part of advancing home affordability for Canadians, provincial and Federal governments must update building codes, land use planning laws and relocation plans to ensure that homes aren't built in high-risk areas, and to limit the overall "footprint" of development. This requires coordinated action using multiple policy levers.

⁷⁵ Canadian Climate Institute. *Close to Home: Hitting the Accelerator on Climate-Resilient Housing*. Ottawa: Canadian Climate Institute, 2022. <https://climateinstitute.ca/reports/close-to-home/>.

⁷⁶ Ibid.

⁷⁷ Insauga.com. "Ontario Environmental Group Calling for Provincial Intervention in Major Rural Development." 2025. <https://www.insauga.com/ontario-environmental-group-calling-for-provincial-intervention-in-major-rural-development/>.

Conclusion

The aim of this report was to answer the question that has been occupying the minds of home owners across Canada: by how much is climate change actually causing my home insurance to go up?

Homeowners will be the first to know that owning a home is getting more expensive. Rising insurance premiums play a role in this, but until now, there hasn't been a clear understanding of how much of that is caused by inflation, profit or climate change. The analysis of Canada's largest home insurance company has found that climate change is responsible for half of premium increases over the last 16 years.

There are limitations to these findings. We were able to conduct analysis only on a small amount of data, and were unable to separate data between geographical locations. This number should be read as a best estimate, based on publicly available data.

However, it should not be this hard to understand why homeowners are paying so much more. The insurance industry has a public data disclosure problem.

For homeowners, this research provides something critically important: clarity. When premiums jump by almost 80 per cent in a decade, homeowners deserve to know why. Our finding that climate change has cost homeowners over \$3000 in additional insurance premium costs since 2020 alone, providing a more concrete understanding of why household bills are rising.

The stakes extend beyond monthly budgets and into long-term financial security. The majority of Canadians cite homeownership as a central component of their retirement planning. The risk of their homes becoming unaffordable to insure, losing coverage or losing value due to climate change is not just theoretical, but a distinct possibility. Climate risk is now a home ownership risk and a retirement planning risk.



It is quite simple: we can collectively pay to reduce emissions now, or we can pay to clean up after the barrage of climate change-related extreme weather events and consequences that come with a warming world. In one scenario, we can invest in domestic energy security, build safe and resilient homes, and clean up our air and environment. In the other, we invest in shipping natural resources around the world into volatile and unstable markets, increasing energy and housing costs for Canadians.

The path forward requires action from those in power. Policymakers at the federal, provincial and municipal levels must align climate and housing policy with the realities we are already facing. The federal government must create legal pathways to ensure that the onus of paying for climate change isn't just on homeowners or insurance companies, but on the polluters creating the crisis. Insurance companies must properly plan for the energy transition, focusing not just on investing in adaptation, but on investing in mitigation and aligning their long term business plans with the needs of climate change mitigation.

None of this is impossible. The data exists. The regulatory tools exist. All that is missing is the will to use them.



Appendices

Appendix A

AR/SFI Multiple sources

AR Annual Report only

SFI Supp. Financial Info only

Imputed Calculated/derived

N/A Not disclosed

Variable	Intact	Definity
Underwriting income (loss)	AR/SFI	AR/SFI
Net Earned Premiums / Net Revenue	AR/SFI	AR/SFI
Policies in force	SFI	AR/SFI
Combined ratio	AR/SFI	AR/SFI
Expense ratio	AR/SFI	AR/SFI
Claims ratio	AR/SFI	AR/SFI
› Underlying current year loss ratio	AR/SFI	AR/SFI
› CAT loss ratio	AR/SFI	AR/SFI
› PYD ratio	AR/SFI	AR/SFI
Underlying loss (millions)	Imputed	SFI
Actual CAT loss (millions)	AR/SFI	SFI
› Actual CAT loss PYD (millions)	SFI	N/A
› Actual non-CAT loss PYD (millions)	Imputed	N/A
› Total PYD (millions)	SFI	SFI
Overall expected CAT losses	AR	N/A
Reinsurance metrics	AR	AR/SFI

Appendix B

The fundamental challenge in measuring climate change's impact on insurance costs is separating climate-related increases from other trends. Home insurance premiums rise for many reasons unrelated to climate. To address this, we compare two types of insurance losses: catastrophic losses (CAT losses) and non-catastrophic losses (non-CAT losses).

CAT losses result from major weather events like floods, wildfires, and severe storms—events that climate change is expected to intensify. Non-CAT losses come from routine claims like burst pipes, theft, and minor accidents—events largely unaffected by climate change. Both of these loss types are subject to similar inflationary pressures, such as rising construction costs. By examining how much faster CAT losses are growing compared to non-CAT losses, we can estimate the portion of cost increases attributable to climate change.

Sourcing good data has been a challenge for this work. Very few insurance companies in Canada provide detailed reports on the types of losses which occur. The analysis uses publicly available data from Canadian insurers' annual shareholder reports and regulatory disclosures. Just two insurance companies in Canada had sufficient data to include in this study: Intact Financial Corporation (14.9 per

cent market share) and Definity Financial (3.9 per cent market share).⁷⁸

All of the numbers in this analysis are derived using data from Intact Financial Corporation – Canada's largest property and casualty insurer. The company's Annual Reports and Supplementary Financial Information documents segment results across three geographic markets (Canada, the United States, and the United Kingdom) and across distinct business lines, including personal property insurance, personal auto insurance, and commercial lines. This segmentation allows for isolation of the Canadian personal property segment, which is the focus of this research.

The findings were verified using available data from Definity Financial. Definity reports the majority of its metrics through Supplementary Financial Information documents. The company segments results by personal auto, personal property, and commercial lines, and currently operates only in Canada. For this research, data was extracted from the personal property segment for both companies.

Accounting Standards

The period covered by this research spans separate accounting and reporting periods. The International Financial Reporting Standards (IFRS) are globally recognized

⁷⁸ Smythe CPA. PC Insurance Brokerage Report 2025. Vancouver: Smythe CPA, 2025. <https://www.smythecpa.com/wp-content/uploads/2025/10/Smythe-PC-Insurance-Brokerage-Report-2025.pdf>.

accounting standards, which became mandatory in Canada in 2011. These replaced the Canadian Generally Accepted Accounting Principles (GAAP). IFRS 17 was adopted in 2023. These three reporting regimes could create structural breaks in the data that warrant closer attention.

The practical implication for interpreting this research is that trend analysis spanning either the 2011 or 2023 transition points will be viewed with appropriate caution. Where possible, we used restated figures provided by the company in transition years to maintain consistency. Where restatements were unavailable, we acknowledge that the accounting transitions may introduce some measurement discontinuity in the time series.

Data Limitations

There are three important limitations regarding the data scope in this research. First, this analysis involves data from just two insurance companies operating in Canada. The availability of this granular operational and financial data exists solely because these companies are publicly traded entities, which subjects them to enhanced disclosure requirements. The broader Canadian insurance market includes numerous privately held insurers, mutual insurance companies, and smaller regional carriers that face no comparable public disclosure obligations, rendering their data inaccessible for research purposes.

Second, the data examined in this study reflects the operations and strategic

responses of two of the largest property and casualty insurance companies in Canada. While this provides insight into how major market participants are addressing climate-related risks, it is not indicative of how smaller insurance companies facing different capital constraints and limitations are responding to the same climate challenges.

Third, both companies demonstrate significant representation in Ontario relative to their presence in other Canadian provinces. Definity Financial's business concentration is particularly pronounced, with 59 per cent of its operations based in Ontario, followed by 14 per cent in Alberta and the Prairies region, and only 8 per cent in Quebec. Intact Financial Corporation still maintains 40 per cent of its Canadian business in Ontario, with 29 per cent in Quebec and 15 per cent in Alberta. As such, any trends identified may be most applicable to Ontario.

Assumption 1: Non-CAT Losses Are Not Climate-Affected

We assume that observed non-catastrophic losses provide an estimate of what those losses would have been in the absence of climate change. This means we treat routine claims such as water damage from plumbing failures or minor property damage as unaffected by climate trends during the study period.

If climate change also increases non-CAT losses (for example, through gradual increases in maintenance costs or inflation driven by climate impacts), our approach

may underestimate the total climate effect. However, we expect such effects to be smaller and slower-moving than the dramatic increases in catastrophic weather events.

Assumption 2: Parallel Trends in the Absence of Climate Change

We assume that, without climate change increasing the likelihood and frequency of extreme weather events, catastrophic and non-catastrophic losses would have grown at similar rates over time. Both types of losses are affected by common factors like inflation, construction cost increases, and growth in the number and value of insured properties.

Assumption 3: No Composition Effects

We assume that changes in average premiums and losses reflect actual changes in costs, not just changes in which customers or properties are being insured. In other words, we assume the mix of policyholders and insured properties remains relatively stable over time.

Assumption 4: No Cross-Subsidization Across Insurance Lines

We assume that increases in expected losses in home insurance are fully reflected in home insurance premiums, rather than being offset by profits from other insurance products (like auto insurance). Insurers offer multiple types of insurance. If regulatory constraints limit how much they can raise home insurance premiums, they might absorb some climate-

driven losses through profits from other lines. This would cause us to underestimate the true cost pressure that climate change places on home insurance.

Assumption 5: Proportionality

We assume that the share of ceded claims and premiums attributable to Canadian personal property are proportional to the share of company-wide CAT losses attributable to this segment.

If any of these assumptions are incorrect, the impact would be that any identified trends are underestimates, rather than overestimates, of the impact of climate change on home insurance.

Methods

To isolate climate effects, we first estimate the “normal” growth rate of insurance losses: the rate at which losses would grow without excess impacts caused by climate change. We do this by estimating the geometric (compound annual) growth rate of non-catastrophic losses over the study period. This growth rate captures inflation, increases in property values, growth in the number of policies, and other non-climate factors.

We then perform the same analysis for catastrophic losses, estimating their geometric growth rate. We infer that the difference between the CAT growth rate and the non-CAT growth rate represents the excess growth in catastrophic losses—the portion we attribute to climate change.

To ensure we are measuring changes in per-household costs rather than just increases due to more people buying insurance, we divide all loss figures by the number of policies in force. This gives us losses per policy, which more accurately reflects the cost burden on individual homeowners.

All monetary values are adjusted to constant 2002 Canadian dollars using appropriate price indices. This ensures that the trends we observe represent real increases in costs, not just nominal increases due to general inflation.

In addition to analyzing realized (actual) losses, we examine insurers' reported expected catastrophic losses. This represents forward-looking estimates of future CAT losses, revealing how insurers' risk models and beliefs about climate risk have evolved over time. Insurers set prices based on their best estimates of the likelihood that something will happen in the future. They balance the likelihood of regular, low cost events with the likelihood of more unusual, but extremely high cost events (tail events). This is intended to ensure that they are able to respond even when something extremely bad happens.

We apply the same trend analysis to expected CAT losses as we do to realized losses. If expected CAT losses are growing faster than realized CAT losses, this suggests that insurers are updating their models to anticipate greater future climate risk, even if that risk has not yet fully materialized in actual claims.

This distinction is important because insurance premiums are based on expected future losses, not just past losses. If insurers have updated their climate risk models, this will affect premiums immediately, even before the full impact of climate change appears in claims data.

Limitations and Caveats

Several limitations should be kept in mind when interpreting the results:

- 1. Limited time horizon:** Both companies analysed had a different and limited available time series of data. The study period may capture just a short window of worsened climate impacts over the study period, as climate impacts have been occurring for decades.
- 2. Limited data sources:** There is a limited availability of usable data. As a result, the trends examined in this report do not necessarily capture industry wide trends. Only publicly traded companies have such data available, which limits our study to larger companies, which may have more ability to absorb and adapt to volatile catastrophic losses.
- 3. Potential violations of assumptions:** Each of the four key assumptions described above may be violated to some degree in reality. For example, climate change may affect non-CAT losses more than we assume, or composition effects may be more significant than we account for.

- 4. Regional variation:** The analysis focuses on aggregate national or company-wide data and may not capture important regional differences in climate impacts and insurance costs.
- 5. Attribution complexity:** While excess CAT loss growth is consistent with climate change impacts, other factors (such as increased development in high-risk areas or changes in building practices) could also contribute to rising catastrophic losses. These effects are significantly harder to account for.

Data availability is a significant hurdle in conducting research on the Canadian insurance market. The vast majority of data is either unavailable due to a lack of disclosure requirements, proprietary, or collated by a third party and kept behind a paywall. As such, it is challenging to conduct analysis on the relationship between climate change and home insurance in Canada. Though this work has its limitations, it is the best possible attempt at estimating the climate impact on home insurance premiums, using the best available data.