

# Are Canada's pension funds prepared for the climate emergency?

Thursday, August 11, 2022

Patrick DeRochie, Senior Manager,  
Shift Action for Pension Wealth and Planet Health

[info@shiftaction.ca](mailto:info@shiftaction.ca)

**shift** ACTION FOR  
PENSION WEALTH  
AND PLANET HEALTH

# Intro to Shift

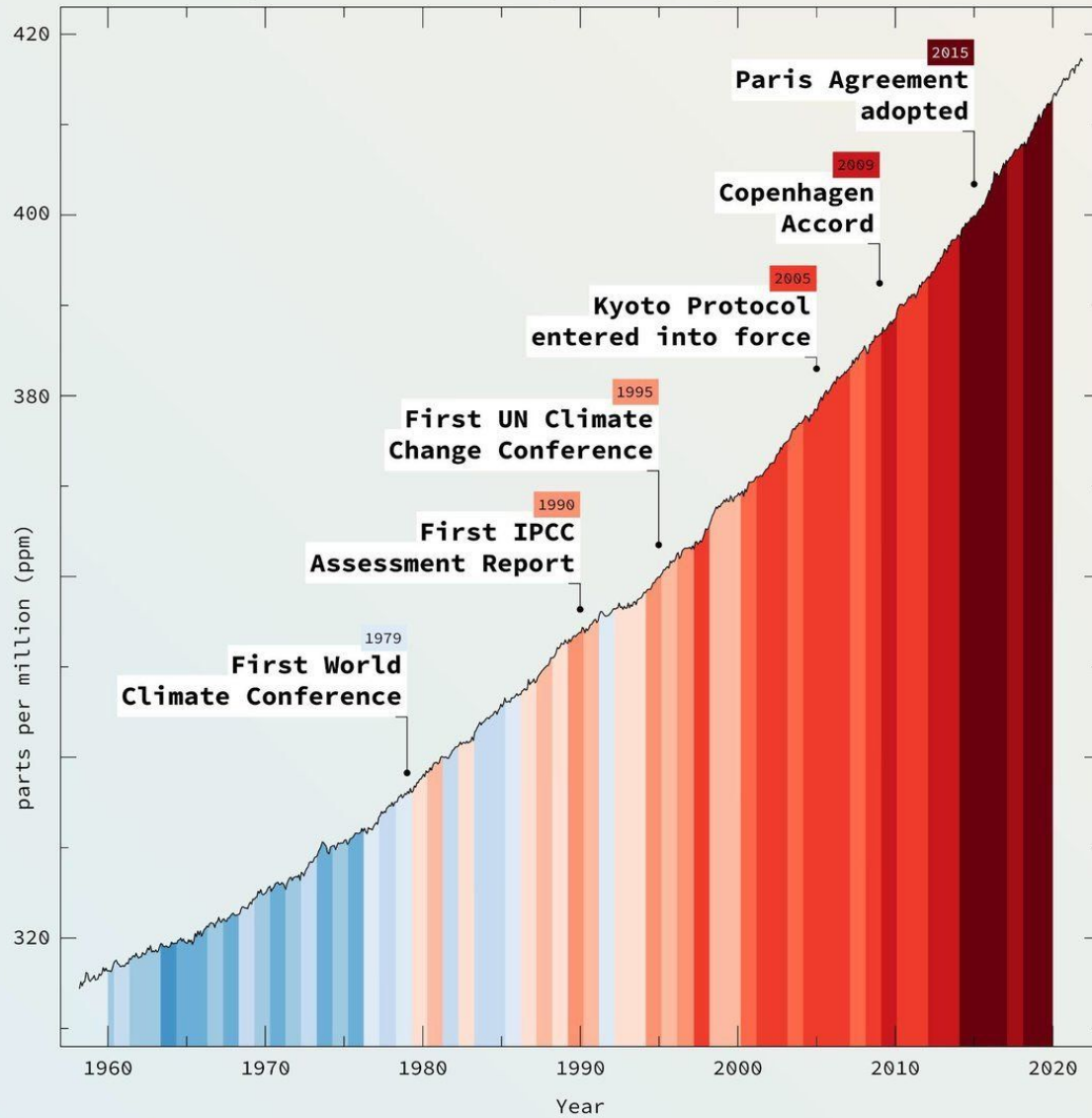
- Sustainable finance NGO and charitable project based in Toronto working to protect pensions and the climate by empowering beneficiaries to engage with their pension plans on climate-related financial risk
- Tracks the climate risk management policies and climate-related investments of Canadian pension funds and works with a network of beneficiaries to engage with their pension managers.
- Improve climate risk disclosure and management, shift assets away from risky fossil fuels and into climate solutions
- Comprehensive campaigns - pension investment monitoring, research, analysis, beneficiary organizing, public communications, digital campaigning, government relations

# Presentation Outline

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- Understanding the climate crisis
- Why the climate crisis matters for pension funds
- The financial risks of climate change
- How Canadian pensions are managing climate risk
- What's needed for a credible climate plan

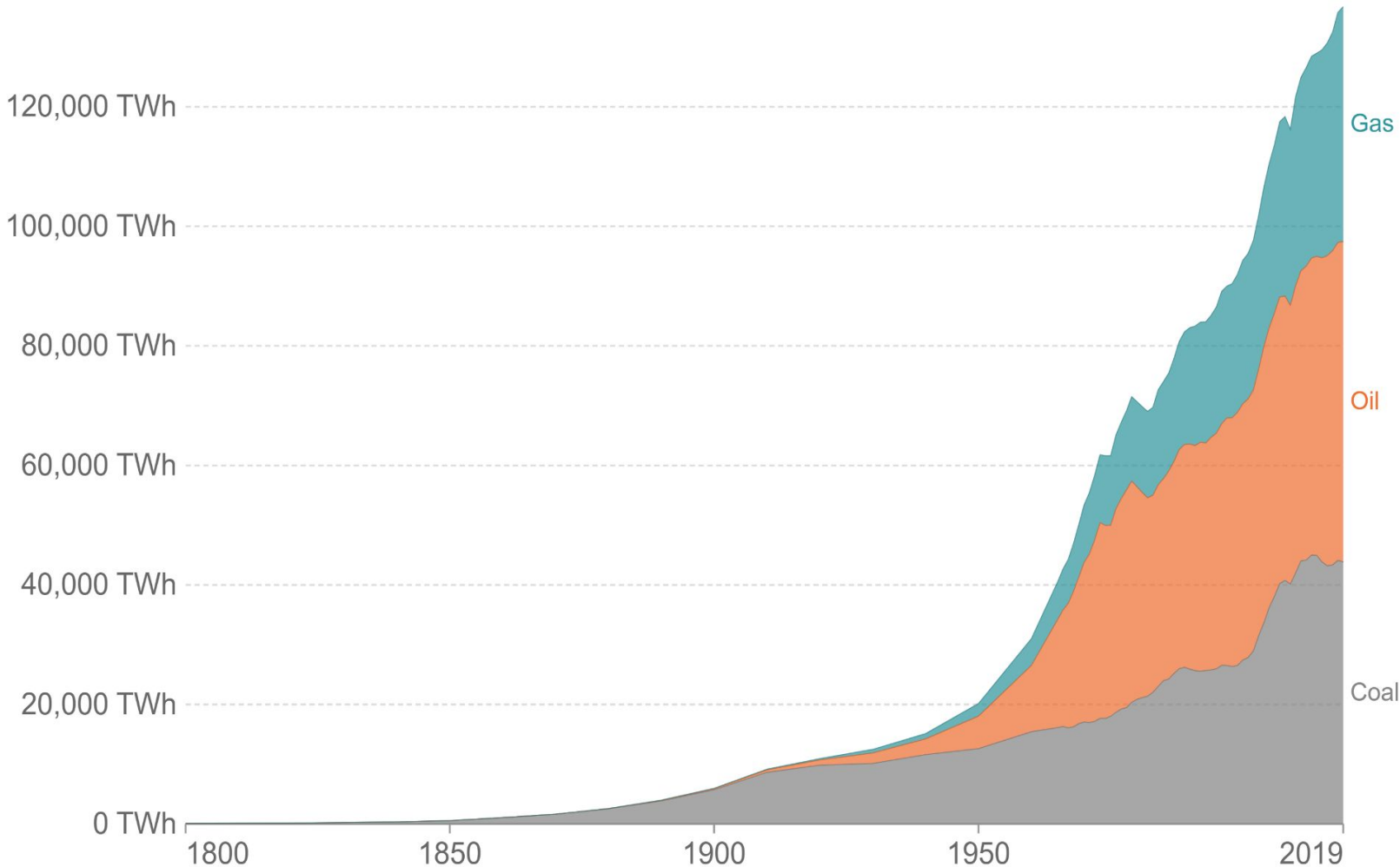
Trends in Atmospheric CO<sub>2</sub> vs Global Temperature Change



Composite Graph of: Atmospheric CO<sub>2</sub> at Mauna Loa Observatory, December 2021 – Scripps Institution of Oceanography & NOAA Global Monitoring Laboratory | #ShowYourStripes – Graphics & lead scientist: Ed Hawkins, National Centre for Atmospheric Science, University of Reading; Data: UK Met Office | Design by: sustentio [PG] | Licence: CC-BY

# Global fossil fuel consumption

Global primary energy consumption by fossil fuel source, measured in terawatt-hours (TWh).



Source: Vaclav Smil (2017). Energy Transitions: Global and National Perspective & BP Statistical Review of World Energy  
[OurWorldInData.org/fossil-fuels/](https://OurWorldInData.org/fossil-fuels/) • CC BY

# The worsening impacts of the climate crisis



**'Biggest rain event I've ever seen': Cleanup underway after massive 24-hour rain in Southwestern Ontario**



Sudbury

**Flood warning issued for Chippewa Creek in North Bay**



**'Poor air quality' in Hamilton, Halton due to Ontario forest fires**



**Toronto breaks high temperature record as heat wave grips GTA**





Fort McMurray wildfires



Texas flooding



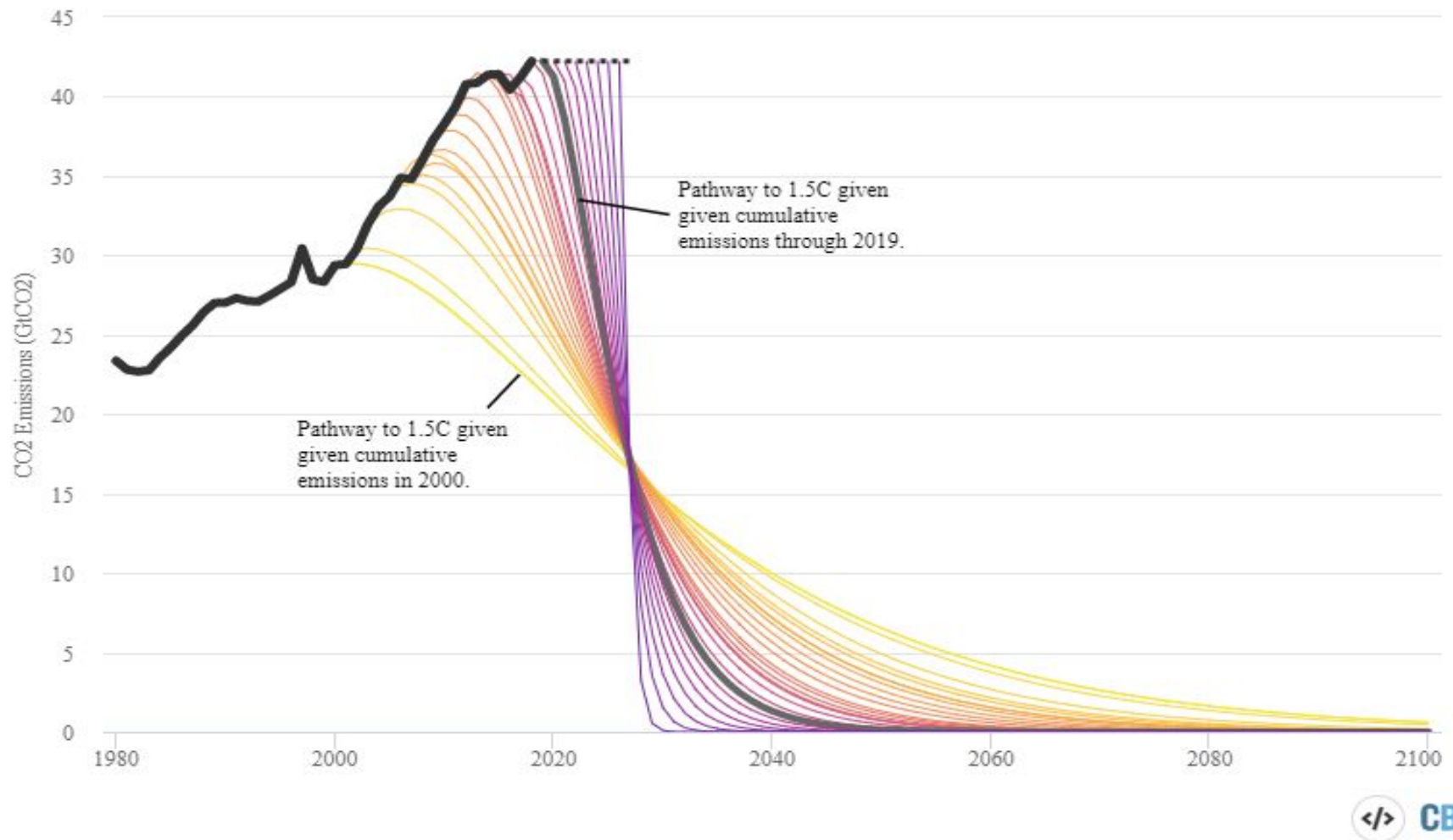
Cape Town water shortages



Columbia Glacier melting



# The Narrow Pathway to Climate Safety



<https://www.carbonbrief.org/unep-1-5c-climate-target-slipping-out-of-reach>

Emission reduction trajectories associated with limiting warming below 1.5C by starting year. Solid black line shows historical emissions, while dashed black line shows emissions constant at 2018 levels. Source: Historical CO<sub>2</sub> emissions from the [Global Carbon Project](#). 1.5C carbon budgets based on the [IPCC SR15 report](#). Original figure from [Robbie Andrews](#). Chart by Carbon Brief using [Highcharts](#).



# Why Canadian Pensions?

1. The financial health of public pensions is at risk from the climate crisis. The security of workers' retirements is at stake.
2. Success or failure in addressing the climate crisis depends, in part, on pensions aligning investments with a safe climate future.
3. Canadian pensions are large asset managers that are globally influential and have the capacity and patient capital to invest in decarbonization and economic transformation.
4. Millions of Canadians are beneficiaries.
5. Long-term investment horizon and fiduciary duty means they must align their portfolio with climate safety

**Pension funds are not bystanders - their decisions are both essential to addressing the climate crisis and to protecting retirement capital.**

# Double Materiality

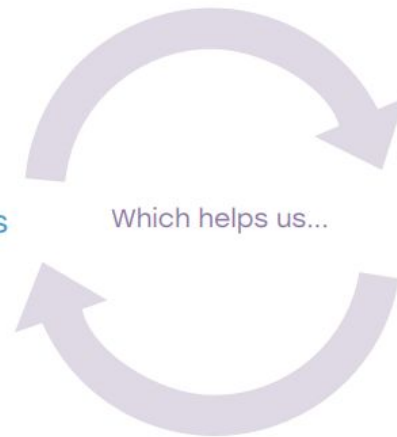


**The materiality of climate change for UPP is twofold:**

- 1 UPP's ability to realize adequate investment returns and provide retirement benefits depends on a stable climate; and
- 2 UPP's investments affect the stability of the climate.

To address these challenges, we have the following interrelated objectives for our approach to climate change:

Manage the impacts of climate-related risks on fund performance and capitalize on opportunities to enhance UPP's ability to provide long-term retirement benefits.



Catalyze the transition to a resilient, net-zero world that limits the global average temperature rise to 1.5°C without a temperature overshoot exceeding 2°C.

# The Climate Crisis, Pensions and Fiduciary Duty

## Climate Change

Legal Implications for Canadian  
Pension Plan Fiduciaries and  
Policy-Makers

mccarthy  
tetraault

“According to a new legal opinion by Randy Bauslaugh, pension funds have a duty to understand and manage the financial risks and opportunities that climate change poses to funds and beneficiaries. Mr. Bauslaugh identifies the legal obligations of pension fiduciaries to consider and manage climate risks, as with any foreseeable financial risk, and discusses the practical approaches they might consider to meet their legal obligations and improve effective fund management of these risks.”:

Source: Randy Baslaugh. (May 2021). Climate Change: Legal Implications for Canadian Pension Plan Fiduciaries and Policy-Makers. McCarthy Tetraault on behalf of the Canada Climate Law Initiative.

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# Climate-related Financial Risks For Pension Funds

- Physical Risk
- Transition Risk
- Policy / Regulatory Risk
- Legal / Reputational Risk
- Systemic Risk



# The Climate Crisis Poses Critical Risks to Pension Funds

## Physical Risk

### Cost of rebuilding B.C. after flooding nears \$9-billion

Experts say government cost-sharing plans remove incentive to invest heavily in preventive measures that could save billions in the long run

JUSTINE HUNTER >

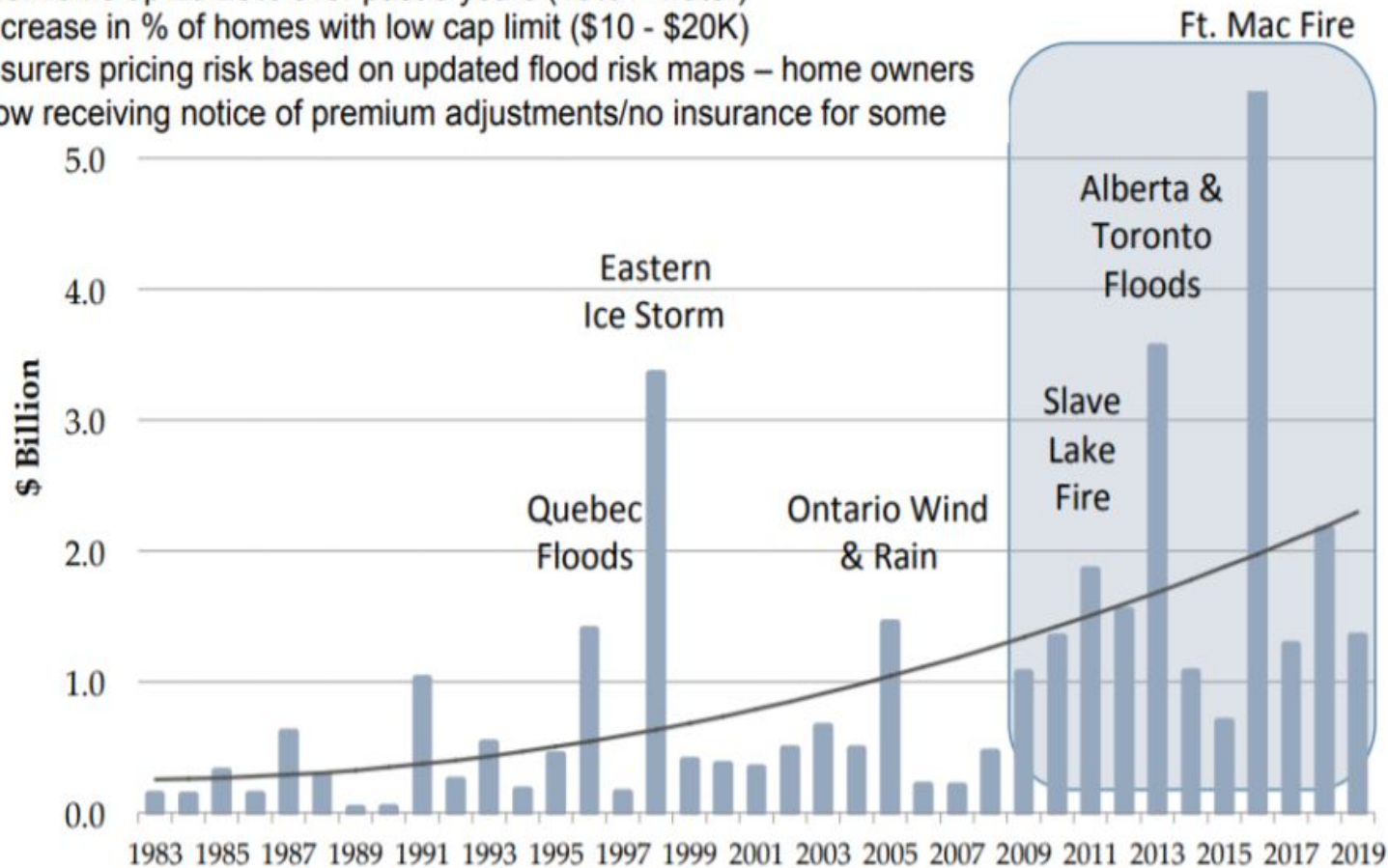
VICTORIA

PUBLISHED FEBRUARY 19, 2022



# COSTS OF EXTREME WEATHER: P&C CATASTROPHIC INSURABLE LOSSES (\$CAD)

- premiums up 20-25% over past 5 years (15% = water)
- increase in % of homes with low cap limit (\$10 - \$20K)
- insurers pricing risk based on updated flood risk maps – home owners now receiving notice of premium adjustments/no insurance for some



**Note:** Cost to government and homeowners 3-4X that of private insurers

Loss + Loss Adjustment Expenses

\$2019 - total natural-catastrophe losses normalized by inflation and per-capita wealth accumulation

Source: CatIQ, PCS, IBC Facts Book

# Physical Costs of Climate Change

## The Physical Costs of Climate Change to Canada

(Cumulative total by 2100 in \$billions)



2°C **\$2,772.78**

3°C **\$3,635.65**

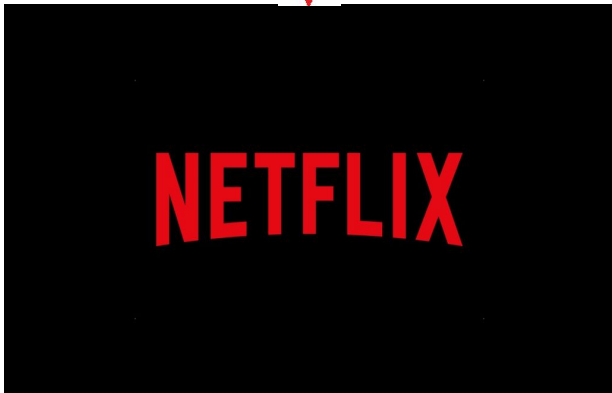
4°C **\$4,794.57**

5°C **\$5,520.06**

Source: Institute for Sustainable Finance, The Physical Cost of Climate Change: A Canadian Perspective, 2022



# Transition Risk

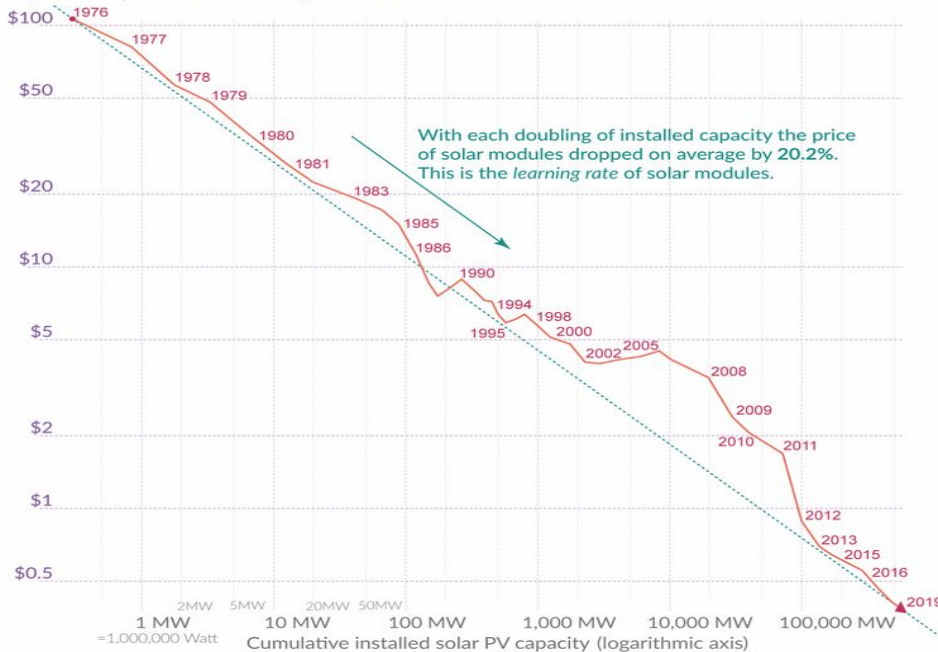




# Transition Risk

The price of solar modules declined by 99.6% since 1976 

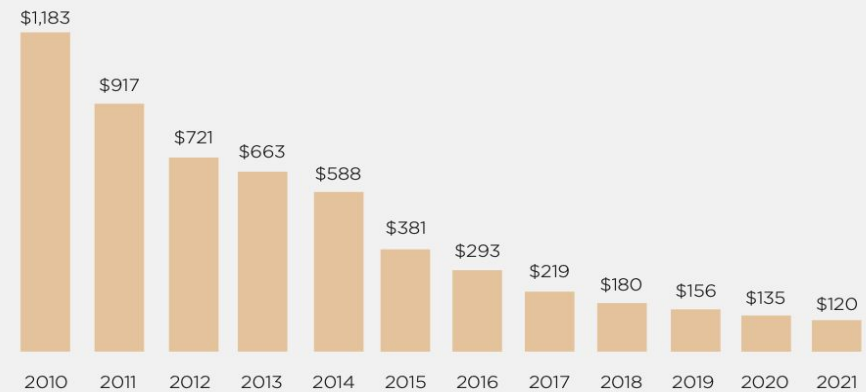
Price per Watt of solar photovoltaics (PV) modules (logarithmic axis)  
The prices are adjusted for inflation and presented in 2019 US-\$.



Data: Lafond et al. (2017) and IRENA Database; the reported learning rate is an average over several studies reported by de La Tour et al (2013) in Energy. The rate has remained very similar since then.  
OurWorldinData.org – Research and data to make progress against the world's largest problems.

Licensed under CC-BY  
by the author Max Roser

## Lithium-ion battery pack prices (real 2019 \$/kWh)



# The Climate Crisis Poses Critical Risks to Pension Funds

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## Policy & Regulatory Risk

Carbon pricing

Phase out of  
internal combustion  
engines

Bans on natural gas  
hook-ups

Building codes and  
retrofit  
requirements

Legislated net-zero  
pathways

Coal phase-out

Electric vehicle  
policies

Decarbonization of  
electricity grid

Bans on oil and gas  
permitting

# The Climate Crisis Poses Critical Risks to Pension Funds

## Legal & Reputational Risk



More than two dozen U.S. cities, counties and states are suing fossil fuel companies over their role in the increasing hazards of climate change.

CBS NEWS

Source: CBS News, April 17, 2022.

<https://www.cbsnews.com/news/climate-change-disinformation-suing-fossil-fuel-companies/>

# The Climate Crisis Poses Critical Risks to Pension Funds

## Legal & Reputational Risk

### **Bloomberg**

■ November 13, 2019, 11:00 AM EST

■ Updated on November 14, 2019, 7:27 PM EST

## A 24-Year-Old Is Suing His Pension Fund for Not Being Green Enough

By Matthew Burgess +Follow

NOV 01, 06:51

### **UK's largest private pension faces legal action over fossil fuel divestment pace**

Josephine Cumbo





CBC

The  
Washington  
Post

Climate and Environment

# Moody's Analytics says climate change could cost \$69 trillion by 2100

Business

Climate impacts to cost world US\$7.9 trillion by 2050: report

Climate change poses risk to financial system, Bank of Canada governor says



Swiss Re

World economy set to lose up to 18% GDP from climate change if no action taken, reveals Swiss Re Institute's stress-test analysis

*Climate Change Could Cut World Economy by \$23 Trillion in 2050, Insurance Giant Warns*

Climate change to take big chunk of Canadian economy by 2050, risk experts say

THE CANADIAN PRESS  
PUBLISHED 55 MINUTES AGO

FOR SUBSCRIBERS

Climate change

Climate crisis to shrink G7 economies twice as much as Covid-19, says research

G7 countries will lose \$5tn a year by 2050 if temperatures rise by 2.6C

Climate change could shave off 3% of the world economy, study finds

PUBLISHED TUE, NOV 19 2019 8:00 PM EST

# Systemic Risk



In a fresh report, the [UN Office for Disaster Risk Reduction](#), or UNDRR, found that between 350 and 500 medium- to large-scale [disasters](#) took place globally every year over the past two decades.

That is five times more than the average during the three preceding decades, it said.

And amid the [changing climate](#), disastrous events brought on by drought, extreme temperatures and devastating flooding are expected to occur even more frequently going forward.

The report estimated that by 2030, we will be experiencing 560 disasters around the world every year – or 1.5 disasters every day on average.

Source: *Humanity entering 'spiral of self-destruction', UN warns*. France 24. April 26, 2022.

<https://www.france24.com/en/environment/20220426-humanity-entering-spiral-of-self-destruction-warns-un-disaster-agency>





# Climate-Related Financial Opportunity



# How are Canadian pension funds managing climate risk?

## Net-zero Emissions by 2050 Commitments

- CDPQ
- Ontario Teachers'
- OMERS
- IMCO
- CPP Investments
- HOOPP
- UPP (2040)

## Fossil Fuel Exclusions

- CDPQ (oil producers and new coal)
- UPP (thermal coal)

## Interim Emissions Intensity Targets

- CDPQ
- Ontario Teachers'
- OMERS
- BCI
- PSP Investments
- UPP

## Climate Action Plans or Strategies

- CDPQ
- Ontario Teachers'
- CPP Investments
- BCI
- OPTrust
- UPP
- PSP Investments

## Investments in Climate Solutions

- Renewable energy
- Electric utilities
- Electric vehicles
- Sustainable agriculture
- Energy efficiency
- Green buildings
- Battery storage
- Public transportation
- Decarbonizing heavy industry
- Green bonds



# Pension fund tools to manage climate risk

- Climate analysis embedded throughout processes and governance
- Disclosure of climate risks using TCFD framework
- Measuring carbon footprint of portfolios
- Demanding better climate risk disclosure from companies and regulators
- Scenario analysis and climate stress testing
- Setting expectations for portfolio companies
  - Net-zero targets, climate transition plans, etc.
- Climate risk training and education opportunities for staff and board
- Portfolio emissions reductions tied to compensation (OTPP and CDPQ)
- ESG and climate risk requirements for external managers
- Proxy voting guidelines on climate-related shareholder resolutions

Climate safety = ending fossil fuel expansion immediately

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The  
Guardian

Scientists urge end to fossil fuel use as  
landmark IPCC report readied

End new oil, gas and coal  
funding to reach net zero, says  
IEA

CTV NEWS

REUTERS

CLIMATE AND ENVIRONMENT | News

UN report 'must sound death knell' for fossil  
fuels as Canada faces climate urgency

CarbonBrief  
CLEAR ON CLIMATE

No place for new fossil fuels if  
world is to reach net zero by 2050,  
says landmark report

# Canadian pension funds have massive fossil fuel investments



## CPPIB expands bet on Colorado fracking by joining new venture

Four of the biggest Canadian pension funds have stakes in companies that transport Russian gas

RESPONSIBLE INVESTING

## Why are Ontario pensioners investing in future Alberta stranded assets?

Financing Alberta's biggest-ever electricity generator fuelled by natural gas is a bad bet by OPTrust

Corporate  
**Knights**



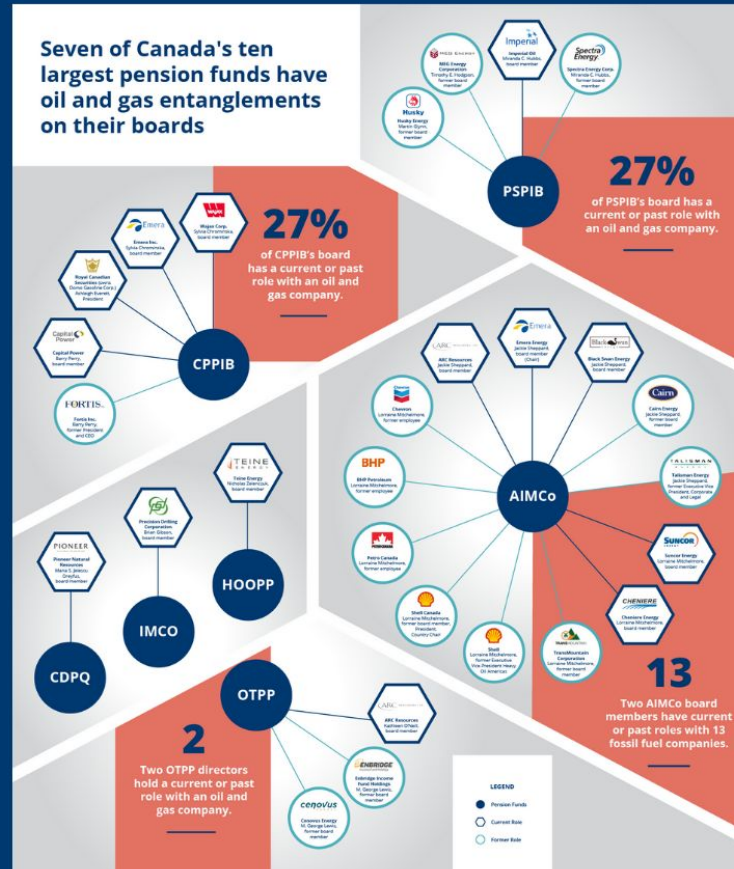
REUTERS

## Canada's top pension funds boost investments in high-carbon oil sands

## The Ontario Teachers' Pension Plan has a gas problem

The OTPP is listening to teachers' climate concerns and raising the bar for sustainable investing, but its fossil gas holdings are still holding it back

# Canada's climate-conflicted pension managers: The oil & gas insiders overseeing Canadians' retirement savings



Read the report at [shiftaction.ca/climateconflicted](https://shiftaction.ca/climateconflicted)

# What's needed for a credible climate plan?

## Public Commitment in Line with the Paris Agreement

**Commitment** in line with a 1.5°C temperature rise

Short, mid, and long-term **plan** with dates, targets, pathways

Plan to **decarbonize by 2040**

## Immediate Action Proportionate to Climate Urgency

**Immediate exclusionary screen** on all new oil, gas, coal investment

**Phase out** all current oil, gas, and coal investment by 2025

## Robust Engagement with Owned Companies

**Forbid lobbying** that undermines climate policy

**Require timed pathways** to net zero emissions

Link **executive compensation** to emissions reductions

## Increasing Investment in a Climate-Safe Future

Set targets and timelines to increase the percentage of the portfolio allocated to **climate solutions**

## Respecting indigenous rights

Establish an Indigenous rights policy

Refrain from investing in companies and projects that lack **Free, Prior and Informed Consent**



# Canadian pension sector is lagging behind



FINANCIAL REVIEW

Companies

Financial Services

Superannuation

## HESTA dumps coal, targets absolute net zero

James Fernyhough Reporter

Jun 26, 2020 - 12.01am



Save

## *New York's \$226 Billion Pension Fund Is Dropping Fossil Fuel Stocks*

The fund will divest from many fossil fuels in the next five years and sell its shares in other companies that contribute to global warming by 2040.

## University of California drops fossil fuels from its \$80 billion portfolio

BY UMAIR IRFAN

September 23, 2019

*UC fund managers say fossil fuels "posed a long-term risk to generating strong returns"*

BUSINESS NEWS

FEBRUARY 3, 2020 / 5:53 AM / UPDATED 8 MONTHS AGO

## Netherlands' \$515 billion pension fund to accelerate cuts to fossil fuel investments

By Reuters Staff

2 MIN READ

IEEFA | March 2, 2020

New Zealand to divest fossil fuel stocks from government-backed savings funds

CARBON-FREE TRANSITION

CLIMATE & SOCIETY

CLIMATE ACTION/"BLOCKADIA"

ENERGY POLITICS

FINANCE & INVESTMENT

INTERNATIONAL

INTERNATIONAL AGENCIES & STUDIES

JURISDICTIONS

## 12 WORLD CITIES SIGN NEW FOSSIL DIVESTMENT PLEDGE

SEPTEMBER 27, 2020 / 17 / 0

World's biggest wealth fund blacklists Canadian Natural Resources, Cenovus, Suncor and Imperial Oil for carbon emissions

# Investment during the Climate Emergency

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**Antonio Guterres,  
Secretary-General of the United  
Nations:**

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**“Investing in new fossil fuel  
infrastructure is moral and  
economic madness.”**



# Thank you!

## Questions/Comments

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# Key questions for fossil fuel company engagement









- Does the company have a credible net-zero commitment, with short-, medium and long-term targets to reduce absolute emissions in line with Paris goals?
- Does the commitment rely on carbon offsets and CCUS?
- Is the company planning and allocating capital to new exploration and production?
- Is the company planning to decrease oil and gas production?
- Is the company and its trade association engaging in lobbying and PR activities to undermine, block, or delay ambitious government climate policies?
- Does the company's compensation structure incentivize emissions reductions or does it reward production increases?
- Is the company investing in a just transition for its workers?
- Does the company respect Indigenous sovereignty and the right to free, prior and informed consent?

**If fossil fuel companies fail this test, even after robust and targeted engagement efforts, the investor should divest.**



# BIG OIL REALITY CHECK:

## UPDATED ASSESSMENT OF OIL AND GAS COMPANY CLIMATE PLANS

	Ambition					Integrity				People-centered transitions	
	Stop exploration	Stop approving new extraction projects	Decline oil and gas production		Set explicit end date for oil and gas extraction and long-term production phase-out plan, aligned with 1.5°C	Set absolute target(s) to reduce all its emissions, including value chain emissions	Do not rely on carbon sequestration or offsets	Be honest about fossil gas as high carbon	End lobbying and ads that obstruct climate solutions	Commit plans and funding to support workers' transitions into new sectors	Uphold human rights and Indigenous Peoples' rights, including to Free, Prior, and Informed Consent
 bp	Only in new countries	No	No	<30% drop by 2030, forecast not pledged	No	Partially intensity-only, unresolved Scope 3 loopholes <sup>3</sup>	No	No	No	No	Policy lacks meaningful safeguards
 Chevron	No	No	No	No	No	No	No	No	No	No	No
 eni	No	No	No	Plateau by 2025, decline only for oil	No	Yes	No	No	No	No	Policy lacks meaningful safeguards
 equinor	No	No	No	No	No	Partially intensity-only	No	No	No	No	Policy lacks meaningful safeguards
 ExxonMobil	No	No	No	No	No	No	No	No	No	No	No
 REPSOL	No	No	No	No	No	Partially intensity-only	No	No	No	No	Policy lacks meaningful safeguards
 Shell	No	No	Drop forecast, but not pledged	Drop forecast, but not pledged	No	Partially intensity-only	No	No	No	No	Policy lacks meaningful safeguards
 TotalEnergies	No	No	No	No	No	Partially intensity-only	No	No	No	No	Policy lacks meaningful safeguards

### COLOR CODE FOR RATING COMPANY COMMITMENTS AGAINST CRITERIA

Grossly insufficient	Insufficient	Partially aligned	Close to being aligned	Fully aligned
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Read the full report: [priceofoil.org/big-oil-reality-check-2022](https://priceofoil.org/big-oil-reality-check-2022)

 OILCHANGE  
INTERNATIONAL

 shift ACTION FOR  
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Credit: Oil Change  
International. Big  
Oil Reality Check.  
(May 2022)