Fossil Futures

The Canada Pension Plan’s failure to respect the 1.5-degree Celsius limit

By James K. Rowe, Steph Glanzmann, Jessica Dempsey and Zoë Yunker

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CCPA
CANADIAN CENTRE
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CORPORATE
MAPPING PROJECT

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Summary

THE WORLD'S LARGEST PENSION FUNDS comprise over half of global investment capital. The Canada Pension Plan Investment Board (CPPIB) manages one of the country's largest pools of investments, at $400 billion. How pension funds choose to invest has significant bearing on how we collectively address the climate emergency and the needed energy transition away from fossil fuels. In this report we ask: Is the CPPIB investing with the 1.5-degree Celsius limit on global average temperature rise in mind?

Our major finding is that the Canada Pension Plan Investment Board is not investing with the 1.5-degree limit in mind.

In April 2016, Canada was among 195 countries that signed the Paris Agreement, committing to "holding the increase in the global average temperature to well below 2 degrees Celsius above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5 degrees Celsius."[1]

Our major finding is that the CPPIB is not investing with the 1.5-degree limit in mind. Within its public equities portfolio, it has over $4 billion invested in the top 200 publicly traded fossil fuel reserve holders (oil, gas and coal). To stay within 1.5 degrees, these companies can extract only 71.4 billion tonnes of carbon dioxide, yet the companies the CPPIB is invested in have 281 billion tonnes in reserve, meaning they have almost four times the carbon reserves that can be sold and ultimately burned to stay within 1.5 degrees. Since reserves are factored into current company valuations, this means the CPPIB has invested billions of dollars in companies whose financial worth depends on overshooting their carbon budget.

This is a moral and ecological failure. It is also a financial risk. As energy generation shifts away from fossil fuels, investors who do not respond could be left with "stranded assets"—investments that are no longer profitable. In its 2019 *Financial System Review*, the Bank of Canada included climate risk in its analysis for the first time. Canadian fossil fuel companies and their investors are especially exposed to stranded asset risk since the majority of oil produced in Canada is high-cost, carbon-intensive bitumen from the oil sands. And yet, the CPPIB remains exposed to the biggest oil sands majors, with over $1.2 billion invested in Canadian Natural Resources Ltd., Suncor Energy Inc. and Cenovus. Canadian pension beneficiaries may therefore be particularly vulnerable to stranded assets and the financial risks they pose.

Why has the CPPIB been slow to act on the financial risks posed by climate change, even when its legal mandate dictates that the fund avoid "undue risks"? In Canada, the fossil fuel sector has been very successful at getting a seat at government decision-making tables, both provincially

1 United Nations Framework Convention on Climate Change, *Paris Agreement*, Article 2, April 2016, accessed September 17, 2019, https://unfccc.int/sites/default/files/english_paris_agreement.pdf.

The Canada Pension Plan holds **281 billion tonnes** of carbon reserves through their investments in the largest publicly-traded fossil fuel companies.

Portion of those reserves that must remain in the ground in order to stay within 1.5° of global warming? **Almost three-quarters** (209.6 billion tonnes).

By failing to invest with the 1.5-degree limit in mind, and therefore contributing to accelerating climate change that will impose heavy economic costs on future generations, the CPPIB may be falling short of its mandate to maximize long-term investment returns.

and federally. The same is true at the CPPIB, where the board of directors and staff are entangled with the oil and gas industry. For example, one of the CPPIB's managing directors of energy and resources sits on the board of *nine* oil and gas companies. The formal relationships that CPPIB board members and staff have with fossil fuel companies potentially bring the interests and perspectives of those companies into the CPPIB's decision-making regarding climate risk, delaying the necessary shift in investments. This is dangerous since the self-interest of fossil fuel companies contradicts the changes that governments and investors need to make if 1.5-degree warming is to be avoided.

Since the CPPIB's duty is to act in the best financial interests of beneficiaries, the billions it continues to invest in fossil fuel companies means it may be breaching its fiduciary duty. The CPPIB has as much legal duty to future beneficiaries as it does to current ones. By failing to invest with the 1.5-degree limit in mind, and therefore contributing to accelerating climate change that will impose heavy economic costs on future generations, the CPPIB may be falling short of its mandate to maximize *long-term* investment returns. As a result, it may be vulnerable to a class action lawsuit brought on behalf of young Canadians.

The CPPIB defends its continued ownership of fossil fuel companies through its commitment to integrating environmental, social and governance (ESG) principles into its investment decisions. But the CPPIB does not disclose sufficient information on how it applies ESG principles in its investment selection. This lack of disclosure makes any attempt to evaluate the strength of its ESG investment practice nearly impossible. Moreover, efforts to integrate ESG principles do not cover its entire portfolio. For the CPPIB's listed equity investments, 60 per cent include ESG integration and 40 per cent have no ESG integration process whatsoever. The CPPIB does not disclose details on the ESG practices of its external management companies, which comprise roughly half of its entire portfolio.

The majority of Canadians are eager for more robust government action on climate change.[2] And yet a recent poll found that only 40 per cent of respondents were aware that their pension funds were invested in fossil fuel companies.[3] Science-based public debate about the fund's investment strategy is crucial.

To help the CPPIB align its asset management with the 1.5-degree limit, we make the following recommendations for the CPPIB, and also for legislators and the general public. Given the importance of the CPPIB and the Canadian financial system to everyday people in this country, these actions are an essential part of a robust climate plan.

The CPPIB should:

1. Carry out a portfolio-wide risk analysis in the context of the climate emergency and disclose all findings to pension members.
2. Divest and reinvest. The surest way to address the financial and ethical risks associated with investment in the fossil fuel industry is to start the process of divestment. This means freezing any new fossil fuel investment, developing a plan to first remove high-risk companies from portfolios such as coal, oil sands and fracked gas producers, and finally, moving toward sector-wide divestment and reinvestment of capital into renewable energy sources.
3. Advocate for strong climate policy. Scientific and economic experts predict that climate change beyond 1.5 degrees will result in widespread political, social and economic decline, with the attendant impacts on pension returns. While pension plans are incapable of preventing such changes on their own, managers of these plans can become strong advocates for climate policy that is in alignment with their intergenerational fiduciary duty.

The surest way to address the financial and ethical risks associated with investment in the fossil fuel industry is to start the process of divestment.

The Canadian government should:

1. Require full public disclosure of climate risk—including disclosure of all fossil fuel holdings—for all pension funds. California recently passed a law requiring that its major public pensions disclose climate risk. The Canadian government should do the same with the CPPIB.
2. Provide regulatory clarity to ensure that executing fiduciary duty means avoiding short-term economic gains that imperil long-term climatic security for Canadians and the global community.
3. Revise the CPPIB's "investment-only" mandate so that social and ecological values are better represented in investment decisions. It is unclear that securing retirement income by investing in tobacco companies, weapons manufacturers, private prisons and the fossil fuel companies responsible for the climate emergency is aligned with the interests of current or future beneficiaries.

2 Bruce Anderson and David Coletto, "Will Climate Change Be a Ballot Box Question in 2019?" *Abacus Data*, March 27, 2019, accessed September 17, 2019, https://abacusdata.ca/will-climate-change-be-a-ballot-box-question-in-2019/.

3 Stephanie Baxter, "Savers Expect Pension Funds to Avoid Fossil Fuels, Finds Poll," *Professional Pensions*, August 20, 2018, https://www.professionalpensions.com/professional-pensions/news/3061348/savers-expect-pension-funds-to-avoid-fossil-fuels-finds-poll.

Introduction

As major investors, pension funds have a significant role to play in mitigating catastrophic climate change.

PENSION FUNDS MAKE UP MORE THAN HALF of global investment capital.[4] As major investors, pension funds have a significant role to play in mitigating catastrophic climate change. And yet, only 1 per cent of global pension capital is currently allocated toward low-carbon solutions.[5] Erik Solheim, former executive director of the United Nations Environment Programme (UNEP), recently scolded pension funds for not doing enough with their financial power to facilitate the transition to sustainable investing and a healthy planet. Given the clear and present danger of climate change, Solheim asks crucial questions: "What condition will the world be in for us to retire in? Is it about time you asked the manager of your pension fund, how sustainable your pension is?"[6] In this report, we pose these questions to the Canada Pension Plan Investment Board (CPPIB), which manages the country's largest investment pool, totalling $400 billion.[7] Particularly, we investigate whether the CPPIB is investing with the Paris Agreement in mind.

The central aim of the Paris Agreement is to "strengthen the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty, including by holding the increase in the global average temperature to well below 2 degrees Celsius above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5 degrees Celsius."[8] The central question we ask in this report is: Do the CPPIB's investment decisions respect the 1.5-degree limit? As one of the country's largest investment pools and as a public institution, the Canada Pension Plan has a vital role to play in funding a just transition for all Canadians.

The Canada Pension Plan was created in 1966 to help make retirement more financially secure for beneficiaries. In 1997, the CPPIB was established by Parliament to move the plan toward financial markets. The CPPIB has an "investment-only" mandate, meaning that its legislated purpose is "to maximize long-term investment returns without undue risk."[9] This singular focus on financial

4 Erik Solheim, "Time to Retire Unsustainable Pensions," UN Environment website, June 25, 2018, accessed September 17, 2019, https://www.unenvironment.org/news-and-stories/story/time-retire-unsustainable-pensions.

5 ShareAction, *Pensions in a Changing Climate*, Asset Owners Disclosure Project (London: ShareAction, 2018), 3, https://aodproject.net/wp-content/uploads/2019/01/AODP-PensionsChangingClimate.pdf.

6 Erik Solheim, "Time to retire unsustainable pensions."

7 Hector Cedano and Stephen Ogilvie, "RatingsDirect: Canada Pension Plan Investment Board," *S&P Global Ratings*, October 24, 2017, accessed September 17, 2019, http://www.cppib.com/documents/1857/SP_CPPIB_2017_07_30.pdf.

8 United Nations Framework Convention on Climate Change, *Paris Agreement*.

9 "Our Mandate," CPP Investment Board website, accessed September 17, 2019, http://www.cppib.com/en/who-we-are/our-mandate/.

return explains why the fund invests in companies and industries with questionable morals: tobacco companies, arms manufacturers and private American prisons, some of the same prisons that are holding child asylum seekers under US President Donald Trump's immigration policy.[10]

The CPPIB's current interpretation of its "investment-only" mandate may also explain why the fund continues to invest billions of dollars in the fossil fuel industry, even as governments declare climate emergencies. A question we pursue in this report is whether the CPPIB might actually be in breach of its current mandate "to maximize long-term investment returns without undue risk."

The need to limit climate change to 1.5 degrees

The most recent report by the UN Intergovernmental Panel on Climate Change (IPCC) clarifies the necessity of limiting warming to 1.5-degree warming from pre-industrial levels.[11] Climate impacts ranging from flooding and polar vortexes to droughts and wildfires are already devastating communities. If the 1.5-degree limit is surpassed and pushes toward 2 degrees, then the effects will dangerously intensify. While 2 degrees of warming was once considered the upper limit, the IPCC's recent report confirms the need to stay below 1.5 degrees. Above this limit lies a frightening future: extremely hot days will become more common, increasing heat-related deaths and causing more forest fires; marine fisheries will be massively depleted due to ocean acidification; tropical coral reefs will likely disappear; pollinators crucial to agriculture will lose vital habitat; extreme weather events will intensify, as will mass migrations. While the effects will be global, those with fewer material resources will feel the most impact. According to the IPCC: "limiting global warming to 1.5°C, compared with 2°C, could reduce the number of people both exposed to climate-related risks and susceptible to poverty by up to several hundred million by 2050."[12] Climate change is no longer solely a future risk; it is upon us. If current emission trajectories persist, we will surpass the 1.5-degree limit and invite catastrophic climate change within 11 years.

The CPPIB's current interpretation of its "investment-only" mandate may also explain why the fund continues to invest billions of dollars in the fossil fuel industry, even as governments declare climate emergencies.

Methodology

The CPPIB invests primarily in public equities (shares in publicly traded companies), private equities (direct investments in private companies) and real estate. The following analysis focuses on the CPPIB's public equity investments, the largest allocation of funds in its portfolio (33 per cent). The fund's portfolio of private equity investments (24 per cent), however, warrants future investigation. We excluded private equity investments because most are pooled funds and so it is very difficult to evaluate their exposure to climate risk. Moving forward, it is important for the CPPIB to make clear the climate change implications of its private equity investments and fixed income.

For this report, we have based our analysis of the CPPIB's public equity investment practices on reporting materials that are publicly available on the fund's website. Fossil fuel holdings information for the CPPIB's public equities portfolio was drawn from its 2019 public equity listings. For our carbon budget calculations to determine whether the CPPIB's investments are aligned with the

10 Andy Blatchford, "Guns, Cigarettes and Prisons: Are Canada's Pension Fund Investments Ethical?" *Global News*, October 18, 2018, accessed September 17, 2019, https://globalnews.ca/news/4568559/cpp-investment-board-ethics/.

11 Intergovernmental Panel on Climate Change, *Global Warming of 1.5°C: Summary for Policymakers*, 2018, https://www.ipcc.ch/site/assets/uploads/sites/2/2018/07/SR15_SPM_version_stand_alone_LR.pdf.

12 Intergovernmental Panel on Climate Change, *Global Warming of 1.5°C*, 11.

Paris Agreement, we cross-referenced the fund's holdings with a list of the world's largest publicly traded reserve-holding fossil fuel companies compiled by Fossil Free Indexes, a carbon emissions research organization for investors. This list of corporations—called the Carbon Underground 200 (CU200)—consists of the largest 100 oil and gas reserve holders and the largest 100 coal reserve holders. We focus on the largest reserve holders since they have the greatest likelihood of pushing us past the 1.5-degree limit and because they have the most to lose financially from keeping fossil fuels in the ground.

Our analysis excludes companies outside the CU200, such as smaller oil producers and pipeline companies, which means that fossil fuel exposure in the CPPIB's public equities portfolio is higher than our reported findings. Furthermore, the CPPIB's insufficient disclosure practice limits our analysis to its public equities.[13] Therefore, the CPPIB's *total* investments in the fossil fuel sector across asset classes is also higher. We are unable to report on the fund's total exposure to fossil fuel companies at this time due to limited disclosure practices.

The CPPIB's insufficient disclosure practice limits our analysis to its public equities. Therefore, the CPPIB's total investments in the fossil fuel sector across asset classes is higher.

Our analysis of proxy voting—shareholder votes cast at a distance—was undertaken on a dataset provided to us by the CPPIB, covering the period from July 1, 2015 to June 30, 2018. Acquiring this data was not straightforward. We first wrote to the CPPIB on July 23, 2018, asking for a list of climate-related shareholder resolution votes. We sent a number of follow-up emails, which led to this negative response in mid-August: "Unfortunately, we would not be able to provide the spreadsheets or PDFs of the 2016–2018 votes as this is not a standard disclosure practice for us."[14] We then wrote two additional emails (August 24, October 5) but did not receive a response and contacted our member of Parliament, Joyce Murray, to help us access what we consider to be public information. Finally, we called the CPPIB directly and, after more back and forth, received the information on October 26. Upon analysis, we realized the CPPIB sent only the proxy votes that it voted *for*. When we cross-checked the CPPIB's proxy voting disclosure, we found a number of climate resolutions that the CPPIB voted *against*. We received the final set of votes on November 16, 2018. While the CPPIB has committed to improving its disclosure practices by participating in the Task Force on Climate-related Financial Disclosures (TCFD), it still has a considerable distance to travel.

We carried out our network analysis by conducting a biographical assessment of the CPPIB's entire board of directors and selected executives (CEO and CFO), as well as its managing directors of energy and resources (Toronto and New York offices) because of their particular emphasis on energy issues. We used all current and some past board memberships and executive positions held with other firms and organizations to create the network map in Figure 1 (page 20) using the Oligrapher tool on LittleSis, an online database that tracks and illustrates corporate connections.[15]

The carbon budget

Limiting global warming means limiting the total cumulative global emissions of carbon dioxide since the pre-industrial period. Using the 1.5-degree limit, the IPCC calculated a carbon budget—the amount of carbon dioxide equivalent (CO_2e) that human society can burn before that limit

13 CPP Investment Board, *Investing for Generations: 2019 Annual Report* (Toronto: CPP Investment Board, 2019), 10, http://www.cppib.com/documents/2042/CPPIB-ANNUAL-REPORT-2019-ENG.pdf.

14 Email correspondence from the CPPIB to Stephanie Glanzman August 17, 2018.

15 For more info on LittleSis see: https://littlesis.org/.

is reached.[16] That carbon budget is 420 billion tonnes of CO_2e for a 66 per cent probability of staying below the 1.5-degree threshold. For perspective, this budget will be exhausted in 10 years at current global emission rates.[17] The world's carbon budget is much smaller than the fossil fuel reserves available for extraction and combustion. According to the Carbon Tracker Initiative, total proven fossil fuel reserves contain approximately 2,900 billion tonnes of $C0_2e$—a figure that dwarfs our remaining carbon budget of around 420 billion tonnes.[18] While these reserves remain underground geologically, they are above ground economically, as they are factored into company share prices. The fundamental contradiction facing the fossil fuel industry and its investors is that a large portion of known reserves already factored into company valuations must stay in the ground if we are to avoid disastrous levels of climate change. If governments legislate for a 1.5-degree world, huge supplies of fossil fuels will become unburnable, and the companies and investors that own them or the rights to extract them could lose billions of dollars.

16 Intergovernmental Panel on Climate Change, *Global Warming of 1.5°C: Summary for Policymakers*, 2018, https://www.ipcc.ch/site/assets/uploads/sites/2/2018/07/SR15_SPM_version_stand_alone_LR.pdf.

17 Zeke Hausfather, "Analysis: Why the IPCC 1.5C Report Expanded the Carbon Budget," *Carbon Brief*, October 8, 2018, accessed September 17, 2019, https://www.carbonbrief.org/analysis-why-the-ipcc-1-5c-report-expanded-the-carbon-budget.

18 Carbon Tracker and the Grantham Research Institute, "Wasted Capital and Stranded Assets," Carbon Tracker Initiative, April 19, 2013, accessed September 17, 2019, https://www.carbontracker.org/reports/unburnable-carbon-wasted-capital-and-stranded-assets/.

Do the CPPIB's holdings indicate that it is investing in accordance with the 1.5-degree limit?

When the reserves of the CU200 companies that the CPPIB has invested in are calculated, the result is almost four times the carbon budget for the entire CU200.

AS OF MARCH 2019, THE CPPIB'S PUBLIC EQUITIES PORTFOLIO had over $4 billion invested in the top 200 publicly traded fossil fuel reserve holders in the world. This list of corporations—called the Carbon Underground 200 (CU200) by Fossil Free Indexes, a carbon emissions research organization for investors—consists of the largest 100 oil and gas reserve holders and the largest 100 coal reserve holders. The Canada Pension Plan has shares in 79 of the CU200, including 41 coal producers and 38 oil and gas companies. In other words, the CPPIB is invested in 41 per cent of the coal producers with the largest reserves and 38 per cent of the biggest reserve-holding oil and gas companies.

Fossil Free Indexes has calculated a carbon budget for the CU200 showing the amount of fossil fuels these companies can responsibly extract while respecting the 2-degree limit. The current carbon budget for the CU200 is 80.8 billion tonnes of carbon dioxide equivalent.[19] When we amend this number for the 1.5-degree limit, the carbon budget is reduced to 71.4 billion tonnes of CO_2e.

And yet, when the reserves of the CU200 companies that the CPPIB has invested in are calculated, the result is 281 billion tonnes of carbon dioxide equivalent, almost four times the carbon budget

19 Fossil Free Indexes, "The Carbon Underground 2017: Managing the Climate Risks of Fossil Fuel Companies in Investment Portfolios," October 2016, accessed September 17, 2019, http://fossilfreeindexes.com/research/the-carbon-underground/. The CU200 carbon budget is calculated by taking total potential emissions for the CU200 (492 $GtCO_2$) and dividing this number by the potential emissions of all proven reserves (2,900 $GtCO_2$). The resulting figure (0.17) is then multiplied by the total remaining global carbon budget (420 $GtCO_2$). The assumption is that because publicly traded companies hold approximately 17 per cent of total potential emissions, they are entitled to approximately 17 per cent of the remaining carbon budget. This assumption does not factor in extraction cost and therefore is favourable to the CU200. Many publicly traded firms are heavily invested in unconventional, high-cost sources such as oil sands and shale oil. When climate legislation raises the cost of production further through policy mechanisms such as carbon taxation, lower-cost producers in Saudi Arabia and other OPEC nations are likely to consume more of the remaining carbon budget.

Table 1: Canada Pension Plan Investment Board holdings in top oil and gas companies ordered by size of fossil fuel reserves, 2019.

Oil and gas companies	Market value (CDN millions)	Total O&G (Gt CO_2)
Gazprom	78	44
Rosneft	19	17
PetroChina	21	8
Lukoil	468	7
Novatek	34	4
Tatneft	185	3
CNOOC	6	1
Inpex	12	1
Canadian Natural Resources	1057	1
Sinopec	9	1

Source: CPP Investment Board, "Foreign Publicly-Traded Equity Holdings," March 31 2019 http://www.cppib.com/documents/2034/Foreign-Public-Equity-Holdings-Mar2019-EN.htm. Reserve totals from Fossil Free Indexes, "The Carbon Underground 200 – 2017 Edition," http://fossilfreeindexes.com/research/the-carbon-underground/.

for the entire CU200. Recalling that reserves are factored into current company valuations, this means that the CPPIB has invested billions of dollars in companies whose financial worth depends on overshooting their carbon budget.

The CPPIB has invested billions of dollars in companies whose financial worth depends on overshooting their carbon budget.

As noted in our methodology section, we focused on the largest reserve holders since they have the greatest likelihood of pushing us past the 1.5-degree limit and because they have the most to lose financially from keeping fossil fuels in the ground. But the CU200 list does not capture all of the CPPIB's fossil fuel investments. While the CPPIB has $1.2 billion invested in 41 coal producers from the CU200 list, it also has approximately $4 billion more invested in smaller coal companies worldwide.[20] The United Nations' most recent IPCC report concluded that coal must be phased out of the global energy mix by 2050 to keep the rise in global temperatures below 1.5 degrees Celsius.[21] According to the Canadian government, "phasing out traditional coal power

20 John Bennett and Andrea Lesperance, *Canadian Coal Investment: Powering Past the Coal Alliance* (Ottawa: Friends of the Earth Canada, 2017), 4, https://foecanada.org/en/files/2017/12/FoE_PowerPastTheCoalAlliance.pdf. To arrive at the $4 billion number we added CPPIB Direct Investment of $339 million in Urgewald's 120 Coal New Developers to the other CPPIB Coal Investments of $4.9 billion that FOE identified via a search of the CPPIB's website. Since this 4.9 billion figure included the $1.2 billion that the CPPIB has invested in CU200 coal companies we subtracted 1.2 billion from the total to arrive at $4.1 billion. This $4.1 billion figure is larger than the $1.2 billion that we highlight due to a different methodological approach. The Friends of the Earth report draws from a more extensive set of companies, whereas our analysis draws from the top 200 largest reserve holders.

21 Joeri Rogelj, Drew Shindell and Kejun Jiang, "Mitigation Pathways Compatible with 1.5°C in the Context of Sustainable Development" in *Global Warming of 1.5°C: An IPCC Special Report*, in press, https://www.ipcc.ch/site/assets/uploads/sites/2/2019/02/SR15_Chapter2_Low_Res.pdf.

Table 2: Canadian Pension Plan Investment Board holdings in top coal companies ordered by size of fossil fuel reserves, 2019.

Coal companies	Market value (CDN millions)	Coal (Gt CO_2)
Shaanxi Coal Industry	17	29
Adani Enterprises	1	25
China Shenhua Energy	20	22
Yanzhou Coal Mining	2	11
China Coal Energy	11	9
Exxaro Resources	12	9
Bukit Asam	7	8
BHP Billiton	1	7
Lu'an Environmental Energy	4	6
Shanxi Xishan Coal and Electricity Power	1	5

Source: CPP Investment Board, "Foreign Publicly-Traded Equity Holdings," March 31, 2019 http://www.cppib.com/documents/2034/Foreign-Public-Equity-Holdings-Mar2019-EN.htm. Reserve totals from Fossil Free Indexes, "The Carbon Underground 200 – 2017 Edition," http://fossilfreeindexes.com/research/the-carbon-underground/.

The CPPIB also invests in Alberta oil sands companies, facilitating the expansion of particularly carbon-heavy oil resources.

is one of the most important steps in tackling climate change and meeting the Paris Agreement commitment."[22] The CPPIB's investments are not aligned with the need to phase out coal.

The CPPIB also invests in Alberta oil sands companies, facilitating the expansion of particularly carbon-heavy oil resources. According to the Pembina Institute, the Alberta oil sands generate 2.2 times as many emissions per barrel than the average crude extracted in North America.[23] In 2019, the CPPIB had investments of $2.8 billion in the top Canadian oil and gas midstream and service companies (see Table 3), five of which are in the CU200. A number of global oil majors are in the process of selling off their oil sands assets. Statoil (now Equinor) sold its entire oil sands operation in 2016 and Royal Dutch Shell followed suit in 2017. According to Equinor Chief Executive Officer Eldar Saetre, "We are not exploring for heavy oil or investing in oil sands. It is really about accessing the most carbon-efficient barrels."[24] When Shell divested from the oil sands, Canadian Natural Resources Ltd. (CNRL) bought its assets. The CPPIB is heavily invested in CNRL ($1 billion), tripling its investment in the company between 2017 and 2019. While global oil companies are moving out of the oil sands, the CPPIB is remaining exposed to carbon-heavy

22 Government of Canada, "Coal Phase-Out: The Powering Past Coal Alliance," 2018, accessed September 17, 2019, https://www.canada.ca/en/services/environment/weather/climatechange/canada-international-action/coal-phase-out.html#toc1.

23 Benjamin Israel, "The Real GHG Trend: Oilsands among the Most Carbon Intensive Crudes in North America," Pembina Institute, October 4, 2017, accessed September 17, 2019, https://www.pembina.org/blog/real-ghg-trend-oilsands.

24 Nerijus Adomaitis and Ron Bousso, "Big Oil Abandoning Canada's Oil Sands in Quest for Cleaner Crude," November 21, 2017, accessed September 17, 2019, https://business.financialpost.com/commodities/energy/interview-statoil-plants-flag-in-big-oils-race-for-cleaner-crude.

Table 3: Canada Pension Plan Investment Board holdings in the top Canadian oil and gas, midstream and service companies (by total revenue) as of March 31, 2019.

Energy companies	Market value (CDN millions)
Canadian Natural Resources Ltd.	1057
Seven Generations Energy	544
Enbridge Inc	385
Suncor	240
TransCanada Corporation	207
Pembina Pipeline Corporation	95
Fortis	77
Transalta Corporation	59
Interpipeline Corporation	36
Capital Power Corporation	20
Gibson Energy	24
Encana	12
Superior Plus Corporation	5
Bonavista Energy Corporation	4
Mullen Group	3
Precision Drilling	2
Secure Energy Services	1
Total	**2771**

Source: CPP Investment Board, "Canadian Publicly-Traded Equity Holdings," March 31, 2019 http://www.cppib.com/documents/2033/Canadian-Public-Equity-Holdings-Mar2019-EN.htm.

The CPPIB has invested billions in one of the most emission-intensive energy sources in an increasingly carbon-constrained world.

oil resources. Meanwhile, the CPPIB has invested $240 million in oil sands producer and refiner Suncor Energy Inc. and $207 million in the TransCanada Corporation, the company behind the controversial Keystone XL pipeline project and the Coastal Gaslink pipeline that runs through unceded Wet'suwet'en territory in northern British Columbia. The CPPIB has invested billions in one of the most emission-intensive energy sources in an increasingly carbon-constrained world.

The CPPIB's fossil fuel interests extend beyond its public equity investments. For example, its 2019 annual report states that "Energy and Resources" make up $8.2 billion of "real asset" investments, a category of assets that constitutes 24 per cent of its portfolio.[25] Some of these "real assets"—long-term, physical investments—include a $1.34 billion investment in fracked gas pipelines from the Marcellus and Utica shale basins in the US. And in 2018, the CPPIB purchased 100 per cent of Shell's interests in the Corrib offshore natural gas project off Ireland's coast, for $1.4 billion.[26] Meanwhile, the climate impacts of other asset classes such as private equities and credit investments are difficult to analyze due to the CPPIB's insufficient disclosure practices. While this section demonstrates how extensive the CPPIB's fossil fuel investments are, we do not know the fund's total exposure due to limited asset disclosure.

Investment in climate change denial and policy obstructionism

The CPPIB has chosen to invest millions in companies with a long history of policy obstructionism.

The preceding analysis demonstrates that the CPPIB's investments are not congruent with the 1.5-degree limit. Moreover, the CPPIB has chosen to invest millions in companies with a long history of policy obstructionism. For example, the CPPIB has over $1.9 billion invested in fossil fuel companies that belong to the Canadian Association of Petroleum Producers (CAPP).[27] CAPP has a long record of lobbying against, and seeking to neutralize the effectiveness of, needed climate policy.[28] For example, CAPP has pushed to neutralize national carbon taxation by requesting that its members get back all of the revenue they pay in taxes.[29] This lobbying appears to have been successful since approximately 80 per cent of the oil and gas sector's emissions are exempted from Canada's national carbon price, thereby greatly reducing the plan's effectiveness.[30]

CAPP also actively funds and manages Canada's Energy Citizens, a group marketed as a "grass-roots" pro–oil and gas citizen initiative. Under the Energy Citizens banner, CAPP recently launched a massive advertising campaign supporting the Trans Mountain pipeline expansion and encouraging policy-makers to "use the appropriate legislative, legal and financial steps to ensure the Trans Mountain Expansion project gets built."[31] Concerns have been raised that CAPP's campaign targeted swing ridings in Ontario's recent provincial election and was meant to tilt the balance toward Doug Ford's Progressive Conservative Party, which opposes carbon pricing.[32]

Finally, in January 2019, CAPP released a platform meant to influence the Alberta provincial elections, which were held in April. The platform called for the rate of Alberta's oil supply for export to double in growth. To justify this doubling, CAPP cites a scenario from the International

25 CPP Investment Board, *Investing for Generations*, 25.

26 CPP Investment Board, *Investing for Generations*, 84.

27 Canadian Association of Petroleum Producers, "Producer Members," accessed September 17, 2019, https://www.capp.ca/about-us/membership/producer-members.

28 Shawn McCarthy, "Oil Industry Successfully Lobbied Ottawa to Delay Climate Regulations, E-Mails Show," *The Globe and Mail*, November 8, 2013, accessed September 18, 2019, https://www.theglobeandmail.com/report-on-business/industry-news/energy-and-resources/oil-industry-successfully-lobbied-ottawa-to-delay-climate-regulations-e-mails-show/article15346866/.

29 Environmental Defence and Stand.earth, *Canada's Oil and Gas Challenge: A Summary Analysis of Rising Oil and Gas Industry Emissions in Canada and Progress Towards Meeting Climate Targets*, 2018, https://www.stand.earth/sites/stand/files/Canadas_Oil%2BGas_Challenge_0.pdf.

30 Environmental Defence and Stand.earth, *Canada's Oil and Gas Challenge: A Summary Analysis of Rising Oil and Gas Industry Emissions in Canada and Progress Towards Meeting Climate Targets*, 2018, https://www.stand.earth/sites/stand/files/Canadas_Oil%2BGas_Challenge_0.pdf.

31 Robert Cribb and Fatima Syed, "Oil Lobby Targeted 13 Ontario Swing Ridings in 'Unprecedented' Pipeline Campaign," *The Star*, March 8, 2019, accessed September 18, 2019, https://www.thestar.com/news/investigations/2018/07/05/oil-lobby-targeted-13-ontario-swing-ridings-in-unprecedented-pipeline-campaign.html.

32 Robert Cribb and Fatima Syed, "Oil Lobby Targeted 13 Ontario Swing Ridings in 'Unprecedented' Pipeline Campaign."

Energy Agency (IEA) that predicts growing fossil fuel demand.[33] What CAPP neglects to mention is that this scenario is one of four provided by the IEA, and that if pursued will result in a global temperature increase of over 3 degrees Celsius.[34] Even the IEA acknowledges that this particular scenario is "far from enough to avoid severe impacts of climate change."[35] CAPP's call to double oil sands growth, and justify this doubling with an energy projection that produces 3 degrees of global warming, is deeply irresponsible. By remaining invested in its member companies, the CPPIB is tacitly supporting CAPP's policy obstructionism and climate denial.

Financial risk, stranded assets and investor responsibility

As energy generation shifts away from fossil fuels, investors who do not respond could be left with "stranded assets," or investments that are no longer profitable. In its 2019 *Financial System Review*, the Bank of Canada included climate risk in its analysis for the first time. According to the central bank, the costs of transitioning to a new energy system will be felt most by the fossil fuel sector and its investors.[36] According to the bank, "If some fossil fuel reserves remain unexploited, assets in this sector may become stranded, losing much of their value."[37] A 2019 Mercer report, *Investing in a Time of Climate Change*, projects the winner and loser asset classes under a 2-degree scenario to 2030, with huge cumulative value losses in coal at -58.9 per cent and -42.1 in oil and gas, with attendant gains in renewables of 105.9 per cent.[38] The CPPIB has recently expanded its investment in renewables, with its newly formed "power and renewables" group investing $3.5 billion in 2018.[39] This is important, but growth in green energy must occur alongside vast reductions in fossil fuel use if we are to meet needed carbon-emission reductions. Moreover, reducing exposure to fossil fuel companies can limit the impact of stranded assets.

As energy generation shifts away from fossil fuels, investors who do not respond could be left with "stranded assets," or investments that are no longer profitable.

Canadian fossil fuel companies and their investors are especially exposed to stranded asset risk since the majority of oil produced in Canada is high-cost, carbon-intensive bitumen from the oil sands.[40] According to the IPCC, the global carbon price needs to be a minimum of $135 per tonne in the next 10 years to keep overall warming below 1.5 degrees Celsius (the price range it provides is between $135 and $5,500 US per tonne).[41] This steep price will make high-cost, carbon-intensive fuels such as bitumen increasingly uncompetitive. And yet, the CPPIB remains invested in the biggest oil sands majors, with over $1.2 billion invested in CNRL, Suncor and

33 Keith Stewart, "Big Oil wants you to vote for climate destruction," *iPolitics*, February 10, 2019, accessed September 18, 2019, https://ipolitics.ca/2019/02/10/big-oil-wants-you-to-vote-for-climate-destruction/.

34 Bob Weber, "Canadian Oil and Gas Industry Urges for Growth Policies as Alberta Heads into Election Season," *The Star Calgary*, January 22, 2019, accessed September 18, 2019, https://www.thestar.com/calgary/2019/01/22/canadian-oil-and-gas-industry-urges-for-growth-policies-as-alberta-heads-into-election-season.html.

35 Frédéric Simon, "IEA Scenarios 'Inconsistent' with Paris Climate Goals, Study Warns," *Euractiv*, April 5, 2018, accessed September 18, 2019, https://www.euractiv.com/section/energy/news/iea-scenarios-inconsistent-with-paris-climate-goals-study-warns/.

36 Bank of Canada, *Financial System Review—2019*, May 2019, https://www.bankofcanada.ca/wp-content/uploads/2019/05/Financial-System-Review%E2%80%942019-Bank-of-Canada.pdf.

37 Bank of Canada, *Financial System Review—2019*.

38 Mercer, *Investing in a Time of Climate Change—The Sequel*, June 2019, https://www.mercer.com/our-thinking/wealth/climate-change-the-sequel.html.

39 Vandana Gombar, "Canada Pension's Green Team Aims for $2.6 Bn a Year: Q&A," *Bloomberg*, January 7, 2019, accessed September 18, 2019, https://about.bnef.com/blog/canada-pensions-green-team-aims-2-6bn-year-qa/.

40 Jeff Rubin, *The Case for Divesting from Fossil Fuels in Canada*, CIGI Papers 112 (The Centre for International Governance Innovation, October 2016): 6, https://www.cigionline.org/sites/default/files/documents/CIGI%20Paper%20no.112web.pdf.

41 Intergovernmental Panel on Climate Change, *Global Warming of 1.5°C*, 78.

Cenovus. Canadian pension beneficiaries may therefore be particularly exposed to stranded assets and the financial risks they pose.

The remediation of inactive oil wells and toxic tailings ponds from oil sands extraction is another risk facing the Alberta oil industry. Leaked estimates by the Alberta Energy Regulator pin the cost of remediation at approximately $260 billion.[42] For a sense of scale, this figure is larger than the total asset value of the Big Five oil sands producers ($246 billion).[43] The Supreme Court of Canada recently ruled that energy companies must fulfill their environmental obligations before paying back creditors in the case of insolvency or bankruptcy.[44] This ruling and looming cleanup costs are likely to make it even more difficult for oil sands companies to raise capital and generate returns for investors. Even before the extent of remediation costs were known, banking giants BNP Paribas and HSBC announced they would halt financing for greenfield oil sands projects (those carried out on land not yet mined).[45]

The global oil and gas industry is also facing growing legal risks. In the United States, fourteen cities and regions have already sued fossil fuel companies for damages from climate change.

The global oil and gas industry is also facing growing legal risks. In the United States, fourteen cities and regions have already sued fossil fuel companies for damages from climate change.[46] In Canada, Victoria is the first city to take similar action. In January 2019, Victoria city council passed a resolution asking the regional government to explore a class action lawsuit against the 20 largest fossil fuel companies.[47] Research in the journal *Climatic Change* concludes that 90 of the largest fossil fuel companies are responsible for approximately two-thirds of human-caused greenhouse gas emissions.[48] These companies are thus theoretically liable for the damage that anthropogenic climate change is already causing. Of these 90, 50 are publicly traded. The CPPIB is invested in 12 of these publicly traded firms to a total of $2 billion. This is considerable exposure to the fossil fuel firms that are the most legally liable for climate change.

The risks facing the fossil fuel sector are many, which is why many major investors are shifting their portfolios toward lower-carbon investments. Norway's sovereign wealth fund—the world's largest ($1 trillion)—recently announced a major divestment from upstream oil and gas producers focused exclusively on exploration and production.[49] This resulted in a list of 150 firms that Norway would be divesting from. The CPPIB is invested in 36 of these firms, to a total of $2.3 billion. A

42 Mike De Souza, Carolyn Jarvis, Emma McIntosh and David Bruser, "Clearing Up Alberta's Oilpatch Could Cost $260 Billion, Internal Documents Warn," *Global News*, November 21, 2018, accessed September 18, 2019, https://globalnews.ca/news/4617664/cleaning-up-albertas-oilpatch-could-cost-260-billion-regulatory-documents-warn/.

43 Ian Hussey and David W. Janzen, *What the Paris Agreement Means for Alberta's Oil Sands Majors* (Edmonton: The Parkland Institute, January 2018), 11, https://www.parklandinstitute.ca/what_the_paris_agreement_means_for_albertas_oil_sands_majors.

44 Supreme Court of Canada, "Orphan Well Association v. Grant Thornton Ltd.," January 31, 2019, accessed September 18, 2019, https://www.scc-csc.ca/case-dossier/cb/2019/37627-eng.aspx.

45 Elizabeth McSheffrey, "Europe's Biggest Bank Retreats from the Oil Sands," *National Observer*, April 20, 2018, accessed September 18, 2019, https://www.nationalobserver.com/2018/04/20/news/europes-biggest-bank-retreats-oilsands.

46 David Hasemyer, "Fossil Fuels on Trial: Where the Major Climate Change Lawsuits Stand Today," *Inside Climate News*, July 22, 2019, accessed September 18, 2019, https://insideclimatenews.org/news/04042018/climate-change-fossil-fuel-company-lawsuits-timeline-exxon-children-california-cities-attorney-general.

47 Alastair Spriggs and Frances Bula, "City of Victoria Recommends Class-Action Lawsuit against the Oil and Gas Industry," *The Globe and Mail*, January 21, 2019, accessed September 18, 2019, https://www.theglobeandmail.com/canada/british-columbia/article-city-of-victoria-recommends-class-action-lawsuit-against-the-oil-and/.

48 Richard Heede, "Tracing Anthropogenic Carbon Dioxide and Methane Emissions to Fossil Fuel and Cement Producers, 1854–2010," *Climatic Change* 122, no. 1 (2014): 229–241.

49 Rob Davies, "Norway's $1tn Wealth Fund to Divest from Oil and Gas Exploration," *The Guardian*, March 8, 2019, accessed September 18, 2019, https://www.theguardian.com/world/2019/mar/08/norways-1tn-wealth-fund-to-divest-from-oil-and-gas-exploration.

large number of major oil sands producers are on the list: CNRL, Cenovus and Encana. Norway's divestment underscores the financial risk faced by carbon-heavy oil sands producers and their investors, such as the CPPIB.

The European Union recently passed a law requiring European pension funds to factor climate risk—described as the possible depreciation of assets due to regulatory change—in investment decisions.[50] The state of California passed a similar law requiring "Calpers (the California Public Employees' Retirement System), which oversees US$360 billion in assets, and Calstrs (the US$228 billion California State Teachers' Retirement System) to report publicly on the climate-related financial risk of their public market portfolio."[51] The new legislation defines climate risk as "the effects of the changing climate, such as intense storms, rising sea levels, higher global temperatures, economic damages from carbon emissions, and other financial and transition risks due to public policies to address climate change, shifting consumer attitudes, changing economics of traditional carbon-intense industries."[52]

The CPPIB acknowledges the risks that climate change poses to its portfolio. It recently increased its investments in renewables, but it has yet to materially shift its investments away from fossil fuels in a way that reflects the gravity of these risks. Why? In Canada, the fossil fuel sector has been very successful at getting a seat at government decision-making tables, both provincially and federally.[53] The same is true at the CPPIB, where the board of directors and staff are entangled with the oil and gas industry. The formal relationships that CPPIB board members and staff have with fossil fuel companies (Figure 1) brings the interests and perspectives of those companies into the CPPIB's decision-making. This is dangerous since the self-interest of fossil fuel companies contradicts the changes that governments and investors need to make if exceeding 1.5-degree warming is to be avoided.

The formal relationships that CPPIB board members and staff have with fossil fuel companies brings the interests and perspectives of those companies into the CPPIB's decision-making.

Relationships between the fossil fuel industry and the CPPIB

Figure 1 illustrates some of the ties that CPPIB board members and executives have to the fossil fuel industry and to banks financing the sector. For example, Heather Munroe-Blum who serves as chairperson for the CPPIB board of directors also serves on the board of the Royal Bank of Canada (RBC), which is instrumental in financing Canadian oil and gas development. RBC has the single largest stake in oil sands among the world's banks.[54] Likewise, CPPIB board member Ashleigh Everett is president of Royal Canadian Securities Ltd., which owns Domo Gasoline Corporation (a chain of retail gasoline stations in western Canada). And, board member Sylvia Chrominska is also on the board of Wajax Corp, a major service and materials provider to the oil sands.

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50 Francesco Guarascio, "EU Requires Pension Funds to Assess Climate Change Risks," *Reuters*, November 24, 2016, accessed September 18, 2019, https://www.reuters.com/article/us-eu-finance-climatechange-idUSKBN13J1SV.

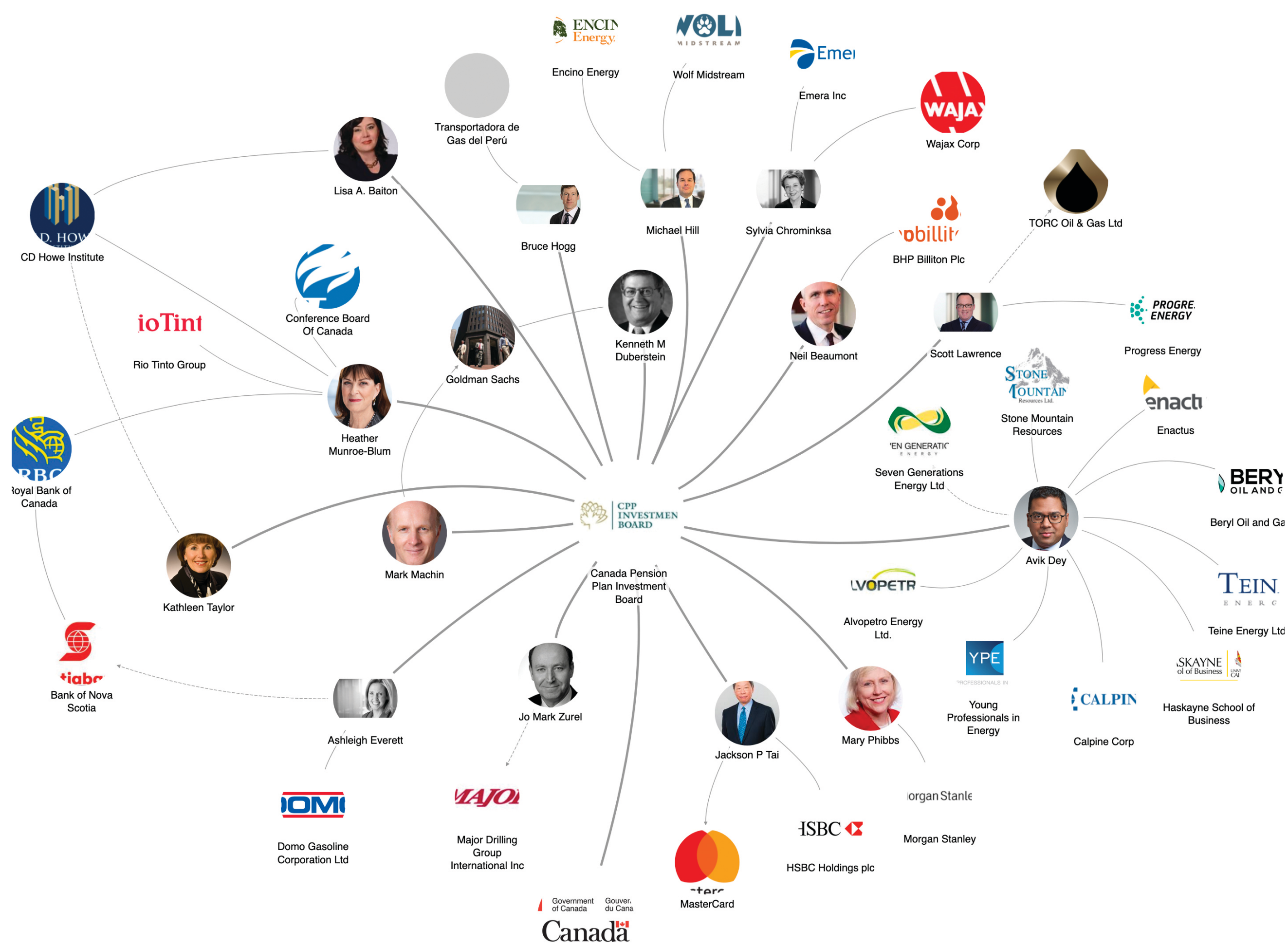
51 Jennifer Thompson, "California Turns Up the Heat on Climate Disclosures," *Financial Times*, September 28, 2018, accessed September 18, 2019, https://www.ft.com/content/a4c8fffa-869a-3e76-8e05-e8acc572d293.

52 State of California, "Senate Bill no. 964, Public Employees' Retirement Fund and Teachers' Retirement Fund: investments: climate-related financial risk," September 24, 2018, accessed September 18, 2019, https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201720180SB964.

53 Nicolas Graham, Shannon Daub and Bill Carroll, "5.2 Million Reasons the Fossil Fuel Industry Has the BC Government's Ear," *PolicyNote*, March 8, 2017, https://www.policynote.ca/5-2-million-reasons-the-fossil-fuel-industry-has-the-bc-governments-ear/. See also, Environmental Defense and Stand.earth, *Canada's Oil and Gas Challenge*.

54 Corporate Mapping Project, "Royal Bank of Canada," accessed September 18, 2019, https://www.corporatemapping.ca/profiles/royal-bank-of-canada/.

Figure 1: Mapping the CPPIB's ties to the oil and gas industry



Source: Infographic created using the Corporate Mapping Project/LittleSis database, https://littlesis.org/partners/corporate-mapping-project.

Avik Dey, Managing Director, Head of Energy and Resources, in the Toronto office of the CPPIB, holds nine past and present directorships with oil and gas corporations, including a directorship for Seven Generations Energy Ltd. He also served on the Enactus Advisory Council at the oil and gas–funded Haskayne School of Business at the University of Calgary.[55] Haskayne's Centre for Corporate Sustainability, for example, was originally launched as the Enbridge Centre for Corporate Sustainability after the major Canadian oil and gas pipeline company founded the school with a commitment to fund $2.25 million over ten years.[56] Dey donated over $50,000 to Haskayne in 2015.[57]

Until 2017, Neil Beaumont, the CPPIB's Senior Managing Director and Chief Financial and Risk Officer, was Vice President Finance at BHP Billiton, one of the world's largest coal companies.

55 "Haskayne Community Report 2015." University of Calgary Haskayne School of Business, 2015. https://haskayne.ucalgary.ca/sites/default/files/About/Haskayne_CommunityReport_2015_lr.pdf.

56 University of Calgary, "Enbridge Centre for Corporate Sustainability," March 28, 2012, accessed September 18, 2019, https://www.ucalgary.ca/report2012/44.

57 "Haskayne Community Report 2015." University of Calgary Haskayne School of Business, 2015. https://haskayne.ucalgary.ca/sites/default/files/About/Haskayne_CommunityReport_2015_lr.pdf.

Scott Lawrence, the CPPIB's Managing Director, Head of Infrastructure, sits on the board of TORC Oil & Gas Ltd.—a Calgary-based company that drills and fracks for oil and gas in Alberta and Saskatchewan. Lawrence is a former board member of one of Canada's largest fracking companies, Progress Energy Resources Corp—renamed PETRONAS Canada after its purchase by the Malaysian national oil and gas company, Petroliam Nasional Berhad (PETRONAS).

It is not uncommon for institutional investors such as the CPPIB to have staff sit on boards of companies that it invests in. This allows investors to help steer companies toward greater value creation that is beneficial for all parties (including pension beneficiaries). In the context of climate change, however, these relationships deserve more public scrutiny. Responding adequately to the climate crisis and the risks it poses will mean value destruction for fossil fuel companies that must keep unburned reserves in the ground if we are to avoid surpassing the 1.5-degree limit on global warming. As outlined above, fossil fuel companies have a long track record of resisting this needed climate action. Formal relationships that CPPIB board members and staff have with fossil fuel companies potentially bring the interests and perspectives of those companies into the CPPIB's decision-making regarding climate risk. This is dangerous since the self-interest of fossil fuel companies contradicts the changes that governments and investors need to make if global warming in excess of 1.5 degrees and the grave economic risks it brings are to be avoided.

The self-interest of fossil fuel companies contradicts the changes that governments and investors need to make if global warming in excess of 1.5 degrees and the grave economic risks it brings are to be avoided.

The CPPIB's failure to invest with the 1.5-degree limit in mind is both a moral failing and a financial risk. The institution's "investment-only" mandate means that it prioritizes financial returns over ethics when it comes to investment. It is, however, required by law to "maximize *long-term* investment returns without undue risk." The fund's fossil fuel investments carry financial risks, to the point that the CPPIB may be in breach of its mandate. Moreover, the CPPIB has as much legal duty to future beneficiaries as it does to current ones. By failing to invest with the 1.5-degree limit in mind, and profiting from climate change that will impose heavy economic costs on future generations if not addressed, the CPPIB appears to be falling short on its mandate. Below we investigate what climate change means for pension management.

Fiduciary duty and climate change

All pensions, including the Canada Pension Plan (CPP), are subject to a legal concept known as fiduciary duty, which is the legal obligation of one party to act in the best interest of another party. In terms of pension management, this means that pension plan trustees have a legal responsibility to provide a retirement income for beneficiaries. The CPPIB's specific mandate is "to maximize long-term investment returns without undue risk." "Long-term" is a crucial modifier, since the CPPIB needs to provide a retirement income not only for Canadians now but also for future Canadian workers. This means the fiduciary duty is not only immediate or even medium-term but intergenerational. As pension lawyers Murray Gold and Adrian Scotchmer write, this mandate requires that "at a minimum… short-term interests ought not be privileged over long-term interests."[58] What does this mean in relation to climate change?

Some of Canada's most prominent legal experts have analysed fiduciary duty related to climate change and the conclusions are clear: fiduciaries must consider non-financial criteria that could

58 Murray Gold and Adrian Scotchmer, *Climate Change and the Fiduciary Duty of Pension Fund Trustees in Canada* (Toronto: Koskie Minsky LLP, 2015), 12, https://share.ca/documents/educational_resources/2015/Fiduciary_duty_and_climate_change.pdf.

have an impact on long-term financial return.[59] Such criteria include many of the climate risks already covered in this report, such as stranded asset risk and legal risk. But crossing the 1.5-degree limit brings even deeper risks. It is increasingly accepted that investment returns correspond with general returns from the marketplace, which means that the health of the CPPIB's returns are linked to the overall health of the economy. This means that systemic risks to the economy are relevant to pension funds, including risks from climate change, and these are considered one of the biggest risks to the economy in general.[60] "The clear implication of this dependence [on the general health of the economy]," as Canadian pension experts Murray Gold and Adrian Scotchmer state, "is that institutional investors, and especially large institutions, cannot afford to ignore systemic factors," like climate change, as a part of exercising their fiduciary duty.[61]

The CPPIB has publicly acknowledged the climate crisis and has started factoring climate change into its investment practices. However, the fund is opposed to divestment.

In their report, Gold and Scotchmer also suggest that pension funds should advocate for national and provincial climate change policies as part of an effort to protect the retirement pensions of Canadians. They add that such policies will protect the overall economy and asset values. But with their current asset allocation in fossil fuels and the relationships shown in Figure 1, it is difficult to imagine the CPPIB advocating for strong federal and provincial climate policies in alignment with 1.5 degrees, when such policies would likely devalue companies they are invested in, particularly those with operations in Canada.

After reviewing the risks climate change poses to pensions, the Center for International Environmental Law concludes that, "[T]he cleanest and simplest way to avoid climate vulnerability in a portfolio is to divest or, at minimum, dramatically reduce exposure to fossil fuel and other highly climate-vulnerable holdings."[62] While writing about the US context, the report disputes arguments that divesting is against fiduciary duty: "There is no legal obstacle to risk-based negative screening—or selling or avoiding high-risk investments generally—as long as the rest of the portfolio is performing adequately."[63]

The CPPIB has publicly acknowledged the climate crisis and has started factoring climate change into its investment practices.[64] The fund is, however, opposed to divestment. The CPPIB relies on integrating environmental, social and governance (ESG) practices into its investment practice, claiming that its ability to actively engage with the companies it invests in is more effective at producing corporate change than strategically divesting its funds: "CPPIB believes we can more

59 Murray Gold and Adrian Scotchmer, *Climate Change and the Fiduciary Duty of Pension Fund Trustees in Canada*; Janis P. Sarra, *Fiduciary Obligations in Business and Investment: Implications of Climate Change*, Commonwealth Climate and Law Initiative Working Paper Series, April 2018, https://ssrn.com/abstract=3356024; Center for International Environmental Law, *Trillion Dollar Transformation*.

60 Edward J Waitzer and Douglas Sarro, "Fiduciary Society Unleashed: The Road Ahead for the Financial Sector," *Business Lawyer* 69, no. 4 (2014): 1081–1116.

61 Murray Gold and Adrian Scotchmer, *Climate Change and the Fiduciary Duty of Pension Fund Trustees in Canada*, 19.

62 Center for International Environmental Law, *Trillion Dollar Transformation*, 19.

63 Center for International Environmental Law, *Trillion Dollar Transformation*, 19. Some fossil fuel companies have begun investing in renewables, which raises questions about the divestment strategy. These investments, however, remain very small as a proportion of overall energy production. As Nicolas Graham observes in a recent study of Canadian oil majors, Enbridge is the biggest investor in renewables among Canadian fossil fuel companies and yet its investments represent only 7.6 per cent of capital expenditures between 2012 and 2016. For Graham, "renewables account for only a small fraction of overall investments as these 'majors' aim not only to protect vast sunk carbon investments, but are also simultaneously expanding oil and gas operations." See Nicolas Graham, "Canadian Fossil Fuel Capitalism, Corporate Strategy and Post-Carbon Futures," *Canadian Review of Sociology* 56, no. 2 (May 2019): 244, https://doi.org/10.1111/cars.12244.

64 In its latest report on sustainable investing, the CPPIB notes how it "views climate change as one of the world's most significant physical, social, technological and economic challenges." CPP Investment Board, *2018 Report on Sustainable Investing: Investing Responsibly for CPP Contributors and Beneficiaries*, 2018, 38, https://www.cppib.com/documents/1922/CPPIB_SI_2018_ENG.pdf.

effectively press for positive change by being an active, engaged investor than we can by sitting on the sidelines."[65] After public protest, the CPPIB recently contradicted this statement and divested its funds from two US-based private prisons detaining migrants at the US-Mexico border.[66] The fund has yet to take this step with fossil fuel companies. Following, we ask whether the CPPIB's ESG practices are sufficient for dealing with the climate emergency.

65 CPP Investment Board, *2018 Report on Sustainable Investing*, 38.

66 Tracey Lindeman, "Canada Pension Fund Quietly Divests from US Migrant Detention Firms," *The Guardian*, July 5, 2019, accessed September 18, 2019, https://www.theguardian.com/world/2019/jul/05/canada-pension-fund-divests-us-migrant-detention-firms.

Do the CPPIB's environmental, social and governance investment practices align with the 1.5-degree limit?

The CCPIB's latest report clarifies that it does not screen its listed equity or fixed income investment portfolios on ethical grounds

ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) PRACTICES often include screening (the exclusion of certain companies from an investment portfolio), proxy votes (votes on resolutions put forward by shareholders or company managers) and participation in investor coalitions (such as the Extractive Industries Transparency Initiative). In this section, we explore whether or not the CPPIB's ESG investment practices align with the 1.5-degree limit.

ESG screening

Every year, the CPPIB submits a report to the Principles of Responsible Investment, a United Nations–supported initiative to increase transparency around investor practices. Its latest report clarifies that the CPPIB does not screen its listed equity or fixed income investment portfolios on ethical grounds.[67] In lieu of ethical screens, the CPPIB carries out a process of "integration"

67 Principles for Responsible Investment, *RI Transparency Report 2018: Canada Pension Plan Investment Board*, 2018, 45, 61. The CPPIB does screen out investments in anti-personnel landmines and cluster munitions—companies that would not be lawful if operating in Canada. They do not exert a portfolio-wide exclusion of these companies, however, because some of their public equity investments are aligned with market-based indices that do not hold such screens. "Investing Responsibly for CPP Contributors and Beneficiaries." Canada Pension Plan Investment Board, 2018. http://www.cppib.com/documents/1922/CPPIB_SI_2018_ENG.pdf.

to target or limit investment in particular firms according to ESG values.[68] It does not disclose information on the content of the ESG values used in its investment selection, and it does not indicate whether or not information from its engagement activities (including proxy voting) are used in the investment selection process. This lack of disclosure makes any attempt to evaluate the strength of its ESG investment practice impossible. Moreover, the process of integration does not cover the CPPIB's entire portfolio. For its listed equity investments, 60 per cent (actively managed) include ESG integration and 40 per cent have no ESG integration process whatsoever.[69] Furthermore, the CPPIB does not disclose details on the ESG practices of its external management companies, which comprise roughly half of its entire portfolio.[70] The ambiguity of the CPPIB's integration strategies and its failure to address the company's most carbon-heavy investments suggest the CPPIB is not structuring its portfolio with the 1.5-degree limit in mind.

Proxy voting

Publicly traded companies hold annual general meetings at which shareholders receive a business update and have the opportunity to cast proxy votes on resolutions. Resolutions can be proposed on topics ranging from disclosing lobbying practices to reporting on annual methane emissions. Proxy voting is one of the main tools used to increase the transparency of a company, and it is embraced by the CPPIB as a core strategy for managing climate risk.[71] Our analysis, however, finds that this strategy falls short. Not only is the CPPIB's track record on proxy voting inadequate in scope, substance and content when it comes to climate issues, the practice of proxy voting as a means to address climate risk has been widely challenged. These two findings will be taken up in turn.

Of the 79 largest reserve holders the CPPIB invests in (from the CU200), only 17 companies have had climate resolutions proposed at shareholder meetings since July 1, 2015.

Despite proxy voting being key to the CPPIB's corporate engagement, it casts very few climate-related votes relative to its portfolio, it votes against resolutions with meaningful impacts on corporate behaviour and the resolutions it has supported result in minimal emission reductions. During the 2017–2018 voting period, the CPPIB cast only 36 votes on climate change resolutions although it held investments in 2,996 public companies. In other words, its climate resolutions covered only 0.01 per cent of its total holdings. Moreover, of the 79 largest reserve holders the CPPIB invests in (from the CU200), only 17 companies have had climate resolutions proposed at shareholder meetings since July 1, 2015.[72] In its 2018 report on sustainable investing, the CPPIB claims that it has "pressed large greenhouse gas emitters in oil and gas, utilities and other sectors for improved disclosure related to climate change risks."[73] Yet, the record reveals that the extent of the pressure it has exerted relative to its holdings is very slight. It is a long way from the pressure needed to limit the world to a 1.5-degree increase in the average global temperature.

Despite generally voting favourably on climate-related resolutions, the CPPIB does vote against resolutions that would meaningfully impact corporate behaviour. For example, in 2018 a

68 The CPPIB shares the ESG information used in index construction with United Nations' Principles of Responsible Investment (UNPRI) but does not disclose it to the public. Principles for Responsible Investment, *RI Transparency Report 2018*.

69 Principles for Responsible Investment, *RI Transparency Report 2018*.

70 Principles for Responsible Investment, *RI Transparency Report 2018*.

71 CPP Investment Board, *Proxy Voting Principles and Guidelines* (Toronto: CPP Investment Board, 2018), 1, http://www.cppib.com/documents/1769/CPPIB_Proxy_Voting_Principles_and_Guidelines_EN_Wz3xvj0.pdf.

72 The 17 resolutions were identified by cross-analyzing the CU200 list of companies and the list of climate resolutions released by the CPPIB between July 1, 2015 and June 30, 2018. CU200 companies were counted for proposing one or more climate resolutions that the CPPIB voted on between July 1, 2015 and June 30, 2018.

73 CPP Investment Board, *2018 Report on Sustainable Investing*, 60.

shareholder resolution asked Royal Dutch Shell to set and publish targets aligned with the Paris Agreement. Shell strongly advised shareholders to vote against the resolution, and the CPPIB complied by voting against it.[74] There is a fundamental contradiction in the CPPIB's use of proxy voting to address climate change. It is CPPIB policy to not support shareholder proposals "if they are overly prescriptive or duplicative of initiatives already in place or underway *or if they are likely to detract from the long-term company performance*."[75] Serious action on climate change—such as leaving reserves unburned—will necessarily detract from long-term performance for fossil fuel companies. In other words, the CPPIB's proxy voting policy ensures that its shareholder engagement will have minimal impact on emissions.

Instead, the majority of the CPPIB's climate-related proxy votes emphasize improved corporate disclosure. While such disclosure practices may provide an initial step toward policy change, they do not demand that companies alter their business model, nor do they require any material reduction in emissions. Research suggests that these surface-level policy reforms (improved emissions disclosure, target setting and climate risk assessments, for example) have no significant association with reductions in corporate emissions.[76]

The CPPIB's attempts to draw on proxy voting as a central tool to address climate in its portfolio appears ineffective at best, but at worst may misinform beneficiaries expecting a more stringent and meaningful climate strategy.

Examples of this phenomenon are abundant. In 2016, the CPPIB voted in favour of a successful shareholder resolution for Canadian oil and gas major Suncor Energy Inc., asking the company to report on its corporate strategy in the context of a global shift toward a "low-carbon economy." Suncor recommended that its shareholders support the resolution, acknowledging that "our energy system is in an era of change."[77] Despite its concession about the changes ahead, Suncor's report in response to the motion promised to stay the course, anticipating rising fossil fuel production that would continue to sustain its carbon-heavy business model: "We expect hydrocarbon fuels will continue to be needed to help meet increased global energy demand over the next 50 years."[78] Suncor also predicted that consumer familiarity and cost means that vehicles running on "liquid fuels" like gasoline will continue to surpass electric and hybrid cars.[79] Its position directly contradicts the need to decarbonize the economies of countries such as Canada and the US over the next 30 years to avoid catastrophic climate change.[80]

This example of how weakly companies can respond to successful proxy votes raises concerns about the effectiveness of proxy voting to meaningfully address the climate crisis. If companies are unwilling to transparently engage with motions calling for surface-level steps such as improved disclosure practices, more substantive votes calling for significant corporate transformation are likely to be even less effective. This is particularly true for fossil fuel companies whose returns depend on increased extraction. As such, the CPPIB's attempts to draw on proxy voting as a central tool to address climate in its portfolio appears ineffective at best, but at worst may misinform beneficiaries expecting a more stringent and meaningful climate strategy.

74 Kelly Gilblom, "Shell Sees Off Controversial Votes on Climate Change, CEO Pay," *Bloomberg*, May 22, 2018, accessed September 18, 2019, https://www.bloomberg.com/news/articles/2018-05-22/shell-sees-off-controversial-votes-on-climate-change-ceo-pay.

75 CPP Investment Board, *Proxy Voting Principles and Guidelines*, 14–15.

76 Baran Doda, Caterina Gennaioli, Andy Gouldson, David Grover and Rory Sullivan, "Are Corporate Carbon Management Practices Reducing Corporate Carbon Emissions?" *Corporate Social Responsibility and Environmental Management* 23, no. 5 (2016): 257–270, https://doi.org/10.1002/csr.1369.

77 Suncor Energy Inc., "Schedule A: Shareholder Proposal No. 1," *Management Proxy Circular 2016*, A-2, https://www.eenews.net/assets/2016/04/19/document_cw_03.pdf.

78 Carl Meyer, "Suncor Admits Climate Change Will Turn Its Business Upside Down," *National Observer*, April 20, 2017, accessed September 18, 2019, https://www.nationalobserver.com/2017/04/20/news/gasoline-will-fade-away-oils-here-stay-says-suncor.

79 Suncor Energy Inc., *Climate Risk and Resilience Report 2019* (Calgary: Suncor Energy Inc., 2019), 21, https://sustainability.suncor.com/en/climate-change.

80 Intergovernmental Panel on Climate Change, *Global Warming of 1.5°C Summary for Policy Makers*, 12.

ESG coalition affiliations

The CPPIB argues that its ESG integration efforts are supported by involvement in investor coalitions. The CPPIB collaborates with groups such as the above-mentioned Principles for Responsible Investment, the Extractive Industries Transparency Initiative and Carbon Disclosure Project (CDP).[81] In a previous publication, we reviewed the effectiveness of these institutions in relation to the emission reductions demanded by the Paris Agreement and concluded that coalitions enable institutional investors to "claim due diligence on environmental and social issues *without making any changes to their investment selection*."[82]

Toward climate risk disclosure

The CPPIB is an active participant in the Task Force on Climate-related Financial Disclosures (TCFD), an initiative led by the financial sector to develop "voluntary, consistent climate-related financial risk" metrics and approaches. In 2017, the 32-member task force headed by former New York mayor Michael Bloomberg (and including a member from the CPPIB) released its recommendations, providing investors with a framework to price and manage the risks that climate change poses to their portfolios. The recommendations are meant to apply to all financial institutions, including pension funds, and call for disclosure on how organizations are identifying, assessing, managing and governing climate-related risks. The recommendations call on asset owners and managers like the CPPIB to disclose carbon footprint information to clients and beneficiaries.

Disclosure will certainly play an important role in keeping climate change to 1.5 degrees, but on its own it is not enough. The TCFD recommendations are voluntary and not tied to concrete emission reductions.

The CPPIB is committed to implementing the TCFD recommendations by the end of fiscal year 2021. Among other actions taken, it has developed a carbon footprint tool that examines the publicly traded equity holdings for which there are Trucost carbon emissions data—a total of 34 per cent of the CPPIB's holdings. The 2018 results calculate 1) total carbon emissions of 15.6 million tonnes, 2) a carbon footprint of 125 tonnes of $C0_2$/\$ million invested and 3) a carbon intensity of 220 tonnes of $C0_2$/\$ million revenue. It is difficult to assess these numbers without comparing them to other institutions or targets. The CPPIB offers no such comparisons. Furthermore, the CPPIB's footprint tool only includes Scope 1 emissions (direct greenhouse gas emissions from an organization's owned and controlled sources) and Scope 2 emissions (indirect emissions from the generation of purchased energy). Thus, the footprint only captures a fraction of the carbon emissions associated with its public equities, excluding the much larger Scope 3 emissions that include all indirect emissions that occur in the value chain of the reporting company, such as the emissions produced when their fossil fuel products are burned.

Disclosure will certainly play an important role in keeping climate change to 1.5 degrees, but on its own it is not enough. The TCFD recommendations are voluntary and not tied to concrete emission reductions. As S&P Global, the world's leading credit rating agency writes, much of the proof will be in the extent to which the disclosure standards are taken up, or even better, required

81 Other groups include Asian Corporate Governance Association, Carbon Disclosure Project (CDP), Council of Institutional Investors, International Corporate Governance Network (ICGN), Canadian Coalition for Good Governance (CCGG), Pension Investment Association of Canada (PIAC) and the Task Force on Climate-related Financial Disclosures. Principles for Responsible Investment, *RI Transparency Report 2018*, [23–25].

82 Zoë Yunker, Jessica Dempsey and James Rowe, *Canada's Fossil-Fuelled Pensions: The Case of the British Columbia Management Corporation* (Vancouver: Canadian Centre for Policy Alternatives, 2018), 26 (italics in original), https://www.policyalternatives.ca/sites/default/files/uploads/publications/BC%20Office/2018/06/CCPA-BC%20BCI%20FINAL.pdf.

via regulation, a point emphasized by the Asset Owners Disclosure Project.[83] Further questions remain about how disclosure—the providing of information, no matter how standardized—will lead to carbon emission reductions. Toward this end, research by the non-governmental organization BankTrack found that banks that volunteered to pioneer the use of the TCFD Framework—11 in total—are not the same banks that have committed to ending their financing of new coal mines and power plants.[84] In other words, banks that are using TCFD appear to have weaker climate action than those that are not.

83 S&P Global, "How the Recommendations of the Task Force on Climate-Related Financial Disclosures May Figure into Our Ratings," August 16, 2017, accessed September 19, 2019, https://www.spglobal.com/en/research-insights/articles/How-The-Recommendations-Of-The-Task-Force-On-Climate-Related-Financial-Disclosures-May-Figure-Into-Our-Ratings; ShareAction, Pensions in a Changing Climate, p. 25.

84 Ryan Brightwell and Yann Louvel, "TCFD: Banks Supporting Better Disclosure Are Not the Ones Exiting Coal Project Finance," *BankTrack*, July 31, 2017, accessed September 19, 2019, https://www.banktrack.org/blog/tcfd_no_overlap_between_banks_exiting_coal_project_finance_and_those_supporting_better_disclosure.

Conclusion

AS ONE OF CANADA'S LARGEST INVESTORS—AND AS A PUBLIC INSTITUTION—the Canada Pension Plan has a vital role to play in facilitating a just transition for all Canadians. According to Erik Solheim, the former executive director of the United Nations Environment Programme, "It is time for pension funds to rise to the occasion promoting prosperity whilst protecting the planet and its people."[85] We return to the question posed at the beginning of this report: Do the CPPIB's investment decisions respect the 1.5-degree limit? Our investigation indicates that the answer is no. The CPPIB continues to invest in fossil fuel companies whose proven reserves far surpass the amount of carbon that can be burned to stay within the 1.5-degree limit.

The CPPIB defends its continued investment in fossil fuels through its commitment to ESG investing principles and its adherence to third-party initiatives. But there is no publicly available evidence that these strategies are resulting in concrete carbon emission reductions, reductions that are necessary for Canada to meet the Paris Agreement targets. In sum, the CPPIB's engagement strategy does not reflect the urgency of the climate crisis.

The CPPIB continues to invest in fossil fuel companies whose proven reserves far surpass the amount of carbon that can be burned to stay within the 1.5-degree limit.

Recommendations

To help the CPPIB align its asset management with the 1.5-degree limit, we make the following recommendations, which can also be employed by legislators and the general public. They are an essential part of a robust climate plan.

The CPPIB should:

1. Carry out a portfolio-wide risk analysis in the context of climate emergency and disclose all findings to pension members.
2. Divest and reinvest. The surest way to address the financial and ethical risks associated with investment in the fossil fuel industry is to start the process of divestment. This means freezing any new fossil fuel investment, developing a plan to first remove high-risk companies such as coal, oil sands and fracked gas producers from portfolios, and finally, moving toward sector-wide divestment and reinvestment of capital into renewable energy sources.

85 Erik Solheim, "Time to Retire Unsustainable Pensions."

3. Advocate for strong climate policy. Scientific and economic experts predict that climate change beyond 1.5 degrees will result in widespread political, social and economic decline, with the attendant impacts on pension returns.[86] While pension plans are incapable of preventing such changes on their own, their managers can become strong advocates for climate policy that is in alignment with their intergenerational fiduciary duty.[87]

The Canadian government should:

The Canadian government should require full public disclosure of climate risk—including disclosure of all fossil fuel holdings—for all pension funds.

1. Require full public disclosure of climate risk—including disclosure of all fossil fuel holdings—for all pension funds. California recently passed a law requiring that its major public pensions disclose climate risk. The Canadian government should do the same with the CPPIB.
2. Provide regulatory clarity that executing fiduciary duty means avoiding short-term economic gain that imperils long-term climatic security for Canadians and the global community.
3. Revise the CPPIB's "investment-only" mandate so that social and ecological values are better represented in investment decisions. It is unclear that securing retirement income by investing in tobacco companies, weapons manufacturers, private prisons and the fossil fuel companies responsible for the climate emergency is aligned with the interests of current or future beneficiaries.

Future ecological and economic security is imperiled by the climate crisis. Retirement years will be frightening for current and future Canadians if the 1.5-degree limit is surpassed. Rather than fuelling the expansion and continuation of greenhouse gas emissions through investments in coal, gas and oil, the CPPIB should take its long-term, intergenerational mandate seriously and begin investing with the 1.5-degree limit in mind.

86 https://www.ipcc.ch/sr15/.

87 Murray Gold and Adrian Scotchmer, *Climate Change and the Fiduciary Duty of Pension Fund Trustees in Canada*.

CORPORATE
MAPPING PROJECT

This report is part of the Corporate Mapping Project (CMP), a research and public engagement initiative investigating the power of the fossil fuel industry. The CMP is jointly led by the University of Victoria, Canadian Centre for Policy Alternatives BC and Saskatchewan Offices, and Parkland Institute. The initiative is a partnership of academic and community-based researchers and advisors who share a commitment to advancing reliable knowledge that supports citizen action and transparent public policy making. This research was supported by the Social Sciences and Humanities Research Council of Canada (SSHRC).

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